



ISLAND CHEMICAL COMPANY, INC.

REMEDIAL INVESTIGATION ST.CROIX, U.S. VIRGIN ISLANDS

DRAFT WORK PLAN

Volume II of II
Appendices D through O

Prepared For

Island Chemical Company, Inc.

By

Harding Lawson Associates
Philadelphia, Pennsylvania

March 17, 1994

Appendix D
Rainfall Summary

TABLE 1 TEMPERATURE AND PRECIPITATION

[Data from Alexander Hamilton Field, St. Croix]

Month	Temperature				Precipitation			Average number of days with more than one-tenth of an inch of rainfall
	Average daily maximum	Average daily minimum	Average maximum	Average minimum	Average total	One year in 10 will have--		
						Less than--	More than--	
	<u>°F.</u>	<u>°F.</u>	<u>°F.</u>	<u>°F.</u>	<u>In.</u>	<u>In.</u>	<u>In.</u>	
January----	83	70	86	65	2.23	0.50	7.2	5
February----	83	70	86	66	2.19	.44	5.8	6
March-----	84	71	86	66	1.73	.40	4.6	4
April-----	86	73	88	68	2.83	.55	7.6	6
May-----	86	74	89	70	4.31	.60	8.2	8
June-----	88	76	90	71	3.10	.58	6.0	9
July-----	88	76	90	71	3.51	.80	6.6	8
August-----	89	76	91	72	4.58	1.20	8.8	9
September--	88	75	91	71	6.65	2.20	11.0	10
October----	88	75	90	70	5.45	1.60	10.2	8
November---	86	73	89	68	4.65	1.20	9.0	9
December---	84	72	¹ 87	² 67	3.34	1.00	8.6	9
Year----	86	73	¹ 92	² 64	44.57	34.00	53.8	91

¹ Average annual highest temperature.² Average annual lowest temperature.

Appendix E
Clean Air Act Correspondence



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

26 FEDERAL PLAZA

NEW YORK, NEW YORK 10007

1979

Mr. Harry Spinnoble
Vice President/General Manager
Island Chemical Company, Inc.
P.O. Box 6733
Christiansted, St. Croix
U.S. Virgin Islands 00820

Dear Mr. Spinnoble:

This is to inform you that the United States Environmental Protection Agency ("EPA"), Region II Office, has completed its review of the information you submitted dated April 5, 1979, relative to the chemical plant Island Chemical Company, Inc. ("ICCI") recently purchased in St. Croix, Virgin Islands. Based upon a review of this material and information derived from subsequent telephone discussions with your representatives, it is the determination of the EPA that this project is not subject to Federal Prevention of Significant Air Quality Deterioration ("PSD") regulations. The PSD regulations apply to (among other sources) any new or modified chemical processing plant with projected potential (uncontrolled) emissions (in the case of a modification, the increase in potential emissions) of 100 tons per year or more of any pollutant regulated under the Clean Air Act. From information contained in the Virgin Islands Department of Conservation and Cultural Affairs ("VIDCCA") permits to construct for this project, the increase in potential hydrocarbon emissions were calculated to be less than 100 tons per year; therefore, your project is not subject to the PSD regulations. It should be mentioned that although this source is not now subject to PSD, it may be subject to the PSD regulations in the future; the potential emissions associated with this source will be added to the potential emissions of any subsequent modification(s) in determining PSD applicability.

Should you have any questions concerning the contents of this letter, please feel free to call Messrs. Kenneth Eng or Gerald DeGaetano at (212) 264-4711 and (212) 264-4726, respectively.

Sincerely yours,


Meyer Scottick
Director
Enforcement Division

cc: Mr. Donald C. Francois
Virgin Islands Department
of Conservation and Cultural Affairs

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II DESCRIPTION OF EQUIPMENT - MAJOR AND APPLICABLE ITEMS

A: Utility Building

1. Boiler: Primary
Make: York-Shipley Inc.
Pressure: 150 lb/in²
Blower: 5 H.P.
Burner: York-Shipley Inc. FV-40
Fuel Consumption: #2 Oil
257.1 lb/hr (19,700 Btu/lb)
Sulfur Content: 0.16%
Sulfur Emissions: 0.41 lb/hr
2. Boiler: Reserve
Make: Umberto-Girola-Milano
Pressure: 16 kg/cm²
Btu Rating: 7,936,000 Btu/hr
Blower Motor: 5.9 KW
Feed Water Pump: 7.5 KW
Burner: Oertli
Fuel Consumption: #2 Oil
402.8 lb/hr (19,700 Btu/lb)
Sulfur Content: 0.16%
Sulfur Emissions: 0.64 lb/hr

B. Process Area

1.
Reactor R-1
Stainless Steel
Volume: 1,500 gal.
Dimensions: 6.5 Ft.dia, 10 ft overall height

Condenser R-1: 15 sq. meter surface area

Reactor R-4
Stainless Steel
Volume: 1,300 gal.
Dimensions: 6.0 Ft.dia., 9 ft. overall height
2.

Reactor R-2
Stainless Steel
Volume: 1,500 gal.
Dimensions: 6.5 ft.dia., 10 ft. overall height

Condenser R-2: 15 m² surface area

Flame Front Generator
MFG. By : John Zink Co.
Serial #X52932
Air Orifice: L-1
Gas Orifice: 5/64
Carrier: Propane

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3.

Reactor R-101: Glass Lined
Volume: 2,000 gal.
Dimensions: 6 ft.dia., 13 ft. overall height

Condenser E-101: 16m^2 surface area

Reactor R-102: Glass lined
Volume: 3,000 gallon
Dimensions: 8 ft.dia., 15 ft. overall height

Condenser E-102: 16m^2 surface area

4.

Storage Tank: Stainless Steel
Volume: 19m^3
Dimensions: 10 ft.dia., 8.5 ft overall height

Reactor R-3
Stainless Steel
Volume: 1,500 gallon
Dimensions: 6.5 ft.dia., 10 ft. overall height

Condenser R-3: 15m^2 surface area

Reactor R-5: Carbon Steel
Volume: 1,300 gal.
Dimensions: 6 ft.dia., 9.5 ft. overall height

Appendix F
Cooper Laboratories Geotechnical Investigations

Caribbean
Drilling
Services
INCORPORATED

Box 45 Kingshill St. Croix V.I. 00850 (809) 773-2737

General Engineering Corp.
P.O. Box 459
Christiansted, St. Croix

May 12, 1979
CDS Job #79512

ATTENTION: Mr. John McCallum

REFERENCE: Subsurface Investigation - Proposed Cooper Laboratories
Plant Expansion, Estate Bethlehem, St. Croix

Dear Sirs:

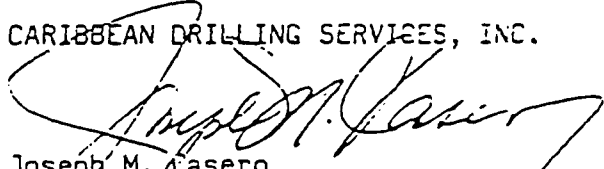
Enclosed herewith please find our soil engineering report
for the above project.

Based on the available soils information it appears that
footing foundations are feasible for the support of the proposed units.
Specific recommendations are included in the body of the report.

Should you have any questions with regard to this report,
please do not hesitate to contact us.

Very truly yours,

CARIBBEAN DRILLING SERVICES, INC.


Joseph M. Casero
Registered Professional Engineer 260E

JMC:fs

301293

SOIL REPORT
SUBSURFACE INVESTIGATION - PROPOSED COOPER
LABORATORIES PLANT EXPANSION, ESTATE BETHLEHEM
ST. CROIX, U.S.V.I.

INTRODUCTION

The subsurface investigation for the proposed Cooper Laboratories Plant Expansion, Estate Bethlehem, St. Croix has been completed. Three (3) soil borings were performed at the site and the results of these borings, together with a location diagram are included in this report.

It is our understanding that the proposed expansion will occupy an area of 33 ft. by 17 ft. with various units including a large glass reactor having an estimated total weight (including internals) of 35 tons. Other units will have minor loads.

The purpose of this report is to describe the soil conditions as encountered in the borings, to analyze and evaluate the boring and test data obtained, and to submit recommendations regarding feasible foundation design and construction.

SUBSURFACE INVESTIGATION PROCEDURES

The soil borings were performed using a trailer-mounted drilling rig equipped with a hydraulic head used in the drilling and sampling operations. Also used was a truck mounted rig for deeper holes. The boreholes were advanced using continuous flight hollowstem augers and representative samples were obtained by means of split-barrel sampling procedures in accor-

301294

dance with ASTM Specifications D-1586.

In the split-barrel sampling procedure, standard penetration resistance values (blows per foot of a 140 lb. hammer falling 30" on a 2" O.D. split-barrel sampler) were obtained. These resistance values are an indication of the relative density of predominantly granular soil in place.

All soil samples obtained in the field were labeled, sealed and forwarded to the laboratory for further examination and testing.

TESTING PROGRAM

Due to the nature of the soils encountered a limited laboratory testing program was implemented.. The program consisted of reclassification of the samples and determination of the natural moisture content. The results of all tests performed are shown on the boring logs opposite the corresponding samples.

Careful boring logs were kept in the field, where the soil samples were classified in accordance with the Unified Soil Classification System. After completion of the testing program, the samples were again examined and the field classifications revised where necessary.

SOIL CONDITIONS

The site is located in an alluvium valley formed on the Kings-hill Formation of Lower Miocene Age. Sediments were derived from the north range and consist of fine sands, sandy clays and silty gravels. Variable stratification is present indicating braided stream deposition.

301295

From a soils engineering viewpoint, the upper surface soils (below existing concrete slab at B-1 and B-2) at all boring locations consist of either stiff silty clay or silty sand with variable percentages of clay to an average depth of from 1.5 to 2.5 ft. Below this surface layer, medium dense to dense silty sand and gravel or sandy silt (B-1) strata were encountered which extended to depth of from 5.0 to 7.5 ft., merging gradually into sandy silt or silty sand with numerous rock fragments. This latter stratum was interspersed with sandy clay seams of limited thickness.

The lowest soil formation encountered (typically below 15 ft.) was a medium dense to very dense silty sand and gravel which extended to the maximum depths investigated (i.e. 25 ft.).

WATER TABLE CONDITIONS

Water level observations made after boring are shown on the boring logs. Based on the available information it appears that at the time the borings were performed, the hydrostatic water table was at approximately 20 ft. below the present ground surface at all boring locations.

The hydrostatic water table should be anticipated to fluctuate throughout the year depending upon variations in precipitation and surface runoff.

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ANALYSIS AND RECOMMENDATIONS

As described under soil conditions, the upper, near surface soils, consisting primarily of silty clay or loose silty sand and are not considered competent soils.

We recommend footing type foundations be used deriving their support from either the medium dense silty sand and gravel or sandy silt typically encountered at 3 ft. below present ground surface.

Footings may be designed for a maximum allowable total load soil bearing pressure of 3000 p.s.f., when established on the bearing soils noted above. If higher allowables are required, footings should be established below 5 ft., at which depth an allowable total load soil bearing pressure of 4000 p.s.f. or higher may be used.

For footings located on the medium dense silty sand or sandy silt at 3.0 ft. (min.) below present ground surface, anticipated settlements should not exceed $\frac{1}{2}$ ". Differential settlements, however, should be negligible.

Due to the nature of the bearing soils, (particularly at the location of boring B-1) we strongly recommend that excavations not be left open for an extended period of time. Saturation of the sandy silt or fine grained sand will affect bearing capacity adversely. If saturation does occur, it is recommended that the soil (saturated) be removed to full disturbed depth prior to steel placement and pouring the concrete.

No construction problems are anticipated for the smaller

units, but some sloughing of the semi-granular soils may occur in the excavations, which may not permit certain foundations to be poured neat. Again the longer excavations are left open the more sloughing is to be anticipated.

Site drainage should be given careful attention to insure that surface waters are not permitted to stand near or seep into the foundation bearing soils.

This report has been prepared in order to aid in the evaluation of the site soil parameters and to assist the engineer in the design of the project. The analysis and recommendations submitted in this report are based on data obtained from three (3) soil borings performed at the locations shown on the reference sketch 79512-D. This report does not reflect the variations between borings which may not become evident until the course of construction. If variations then appear evident, it will be necessary for the soil and foundation engineer to re-evaluate the recommendations of this report after performing on-site observations and noting the effect of such variations on the design of the structure.

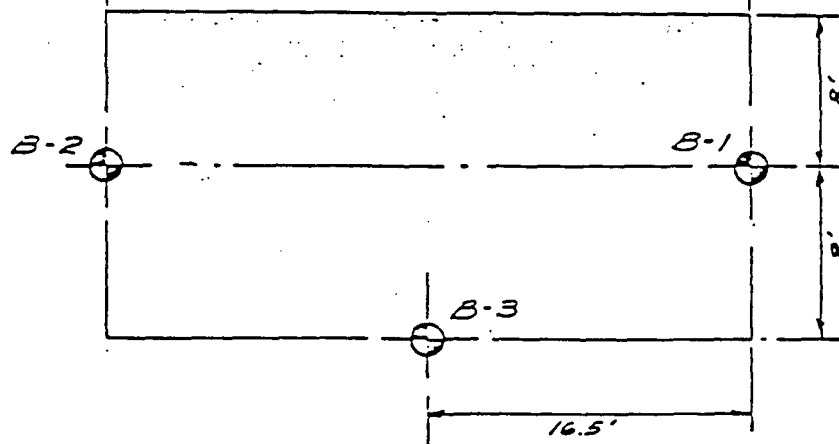
301298

SOIL BORING LOCATIONS

301299



EXISTING
PLANT



SOIL BORING LOCATIONS
COOPER LABS PLANT EXPANSION
SCALE: 1" = 10' JPS MAY 11 1973
79512-D

CARIBBEAN DRILLING SERVICES, INC.

301300

SOIL BORINGS

301301

OWNER
COOPER LABS, INC.

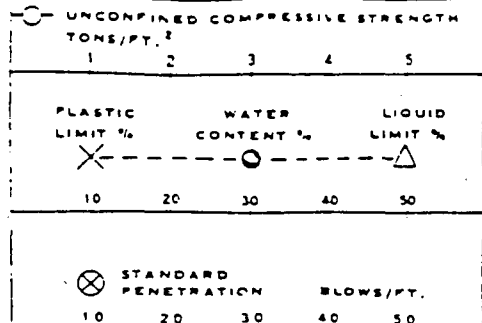
LOG OF BORING NUMBER
B-1

PROJECT NAME
PLANT EXPANSION

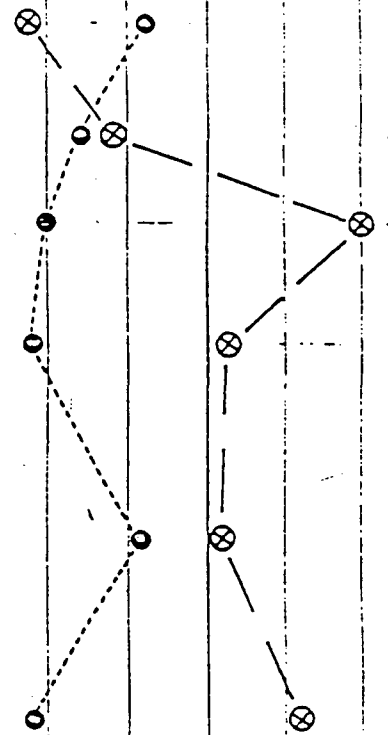
ARCHITECT-ENGINEER
GENERAL ENGINEERING, INC.

SITE LOCATION
ESTATE BETHLEHEM

ELEVATION DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE RECOVERY	DESCRIPTION OF MATERIAL
X				SURFACE ELEVATION



	1	SS		6" CONCRETE SLAB
		PA		SILTY CLAY, Lt. Brown, Stiff (CL)
5	2	SS		SANDY SILT - TRACE CLAY, Lt. Brown, Med. Dense (ML)
		PA		
	3	SS		SILTY SAND AND GRAVEL, Lt. Brown, Dense (GM-SM)
		PA		
15	4	SS		SANDY SILT W/WEATHERED ROCK FGMTS, Lt. Brown, Dense (ML-GM)
		PA		
15	5	SS		SILTY SAND - TRACE TO SOME GRAVEL, Lt. Brown, Dense (SM)
		PA		
25	6	SS		



Bottom of Boring

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

WL 14.0' WS OR WD BORING STARTED 4/17/79

WL BCR ACR BORING COMPLETED 4/17/79

WL 19.5' - A.B.

RIG 45-C FOREMAN KDE

CARIBBEAN DRILLING SERVICES, INC.
SOIL AND FOUNDATION CONSULTANTS

APPROVED BY JMC CDS JOB NO. 79512

301302

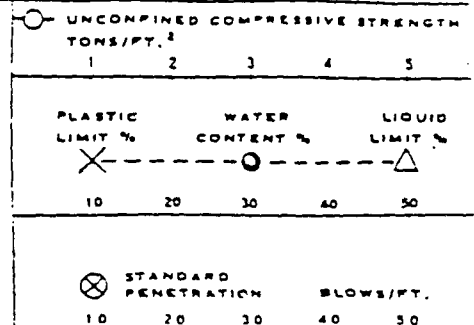
OWNER COOPER LABS, INC.					LOG OF BORING NUMBER B-2					
PROJECT NAME PLANT EXPANSION					ARCHITECT-ENGINEER GENERAL ENGINEERING, INC.					
SITE LOCATION ESTATE BETHLEHEM					UNCONFINED COMPRESSIVE STRENGTH TONS/FT. ² 1 2 3 4 5 PLASTIC LIMIT % WATER CONTENT % LIQUID LIMIT % 10 20 30 40 50 STANDARD PENETRATION BLOWS/FT. 10 20 30 40 50					
ELEVATION DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE	RECOVERY	DESCRIPTION OF MATERIAL	UNIT DRY WT LBS./FT. ³				
					SURFACE ELEVATION					
		PA			6" CONCRETE SLAB					
	1	SS			trace clay to 3'					
	2	SS			SILTY SAND AND GRAVEL, Lt. Brown, Med. Dense to Dense					
5		PAI								
	3	SS			(SM-GM)					
		PA								
10	4	SS			SANDY SILT W/WEATHERED ROCK FGMS, Lt. Brown					
		PA			(ML)					
15	5	SS			SANDY CLAY - SOME SILT, Lt. Brown, Very Tough to Hard					
		PA			(CL)					
20	6	SS			SILTY SAND AND GRAVEL, Lt. Brown, Very Dense					
					(SM-GM)					
					Bottom of Boring					

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

WL	WS OR WD	BORING STARTED 4/18/79	CARIBBEAN DRILLING SERVICES, INC. SOIL AND FOUNDATION CONSULTANTS
WL	BCR	ACR BORING COMPLETED 4/18/79	
WL 19.5' - A.B.		RIG 45-C FOREMAN KDE	APPROVED BY JMC CDS JOB NO. 79512

OWNER COOPER LABS, INC.				LOG OF BORING NUMBER B-3			
PROJECT NAME PLANT EXPANSION				ARCHITECT-ENGINEER GENERAL ENGINEERING, INC.			
SITE LOCATION ESTATE BETHLEHEM				○ UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² 1 2 3 4 5 PLASTIC LIMIT % WATER CONTENT % LIQUID LIMIT % X ● △ 10 20 30 40 50 ⊗ STANDARD PENETRATION BLOWS/FT. 10 20 30 40 50			
ELEVATION	DEPTH	SAMPLE NO.	SAMPLE TYPE				
	X					SURFACE ELEVATION	
		1	SS			SILTY CLAY - TRACE SAND, Lt. Brown, Med. Dense (CL)	
			PA				
		2	SS			SILTY SAND AND GRAVEL, Lt. Brown, Med. Dense to Dense (GM-SM)	
			PA				
		3	SS			SANDY SILT - TRACE CLAY, Lt. Brown, Very Dense (ML)	
			PA				
		4	SS				
			PA			SILTY SAND W/WEATHERED ROCK FGMTS, Lt. Brown, Med. Dense (GM-SM)	
		5	SS			SANDY CLAY, Lt. Brown, Tough (CL)	
			PA				
		6	SS			SILTY SAND AND GRAVEL (WEATHERED ROCK FGMTS), Lt. Brown to Tan, Med. Dense to Dense (SM-GM)	
			PA				
		7	SS				
						Bottom of Boring	
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU, THE TRANSITION MAY BE GRADUAL.							
WL		WS OR WD		BORING STARTED 4/17/79		CARIBBEAN DRILLING SERVICES, INC. SOIL AND FOUNDATION CONSULTANTS APPROVED BY JMO CDS JOB NO. 79512	
WL		BCR		BORING COMPLETED 4/17/79			
WL 20.0' - A.B.				RIG 45-C FOREMAN KDE			

OWNER COOPER LABS, INC.					LOG OF BORING NUMBER B-3				
PROJECT NAME PLANT EXPANSION					ARCHITECT-ENGINEER GENERAL ENGINEERING, INC.				
SITE LOCATION ESTATE BETHLEHEM									
ELEVATION DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE	RECOVERY	DESCRIPTION OF MATERIAL				
					SURFACE ELEVATION				
1 X									
	1	SS			SILTY CLAY - TRACE SAND, Lt. Brown, Med. Dense (CL)				
		PA							
	2	SS			SILTY SAND AND GRAVEL, Lt. Brown, Med. Dense to Dense (GM-SM)				
		PA							
	3	SS			SANDY SILT - TRACE CLAY, Lt. Brown, Very Dense (ML)				
		PA							
	4	SS			SILTY SAND W/WEATHERED ROCK FGMTS, Lt. Brown, Med. Dense (GM-SM)				
		PA							
	5	SS			SANDY CLAY, Lt. Brown, Tough (CL)				
		PA							
	6	SS			SILTY SAND AND GRAVEL (WEATHERED ROCK FGMTS), Lt. Brown to Tan, Med. Dense to Dense (SM-GM)				
		PA							
	7	SS							
					Bottom of Boring				
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU. THE TRANSITION MAY BE GRADUAL.									
WL		WS OR WD		BORING STARTED 4/17/79		CARIBBEAN DRILLING SERVICES, INC. SOIL AND FOUNDATION CONSULTANTS APPROVED BY JMO COS JOB NO. 79512			
WL		BCR		BORING COMPLETED 4/17/79					
WL 20.0' - A.B.				RIG 45-C FOREMAN KDE					



SUBSURFACE INVESTIGATION

PROPOSED FIREWATER TANK

COOPER LABORATORIES PLANT

FREDERIKSTED, ST. CROIX

U.S. VIRGIN ISLANDS

301306

SOIL REPORT

SUBSURFACE INVESTIGATION - PROPOSED COOPER
LABORATORIES PLANT EXPANSION, ESTATE BETHLEHEM
ST. CROIX, U.S.V.I.

301307

Caribbean Drilling Services

INCORPORATED

Engineering Analysis & Reports — Construction Quality Control — Inspection — Testing — Design

Address Reply To:

P.O. BOX 45, KINGSHILL
ST. CROIX, U.S. VIRGIN ISL. 00850

Cooper Laboratories Inc.
Frederiksted, St. Croix
U.S. Virgin Islands

Reference: Subsurface Investigation
Proposed Firewater Tank
Cooper Laboratories Plant
Frederiksted, St. Croix

August 19, 1980
CDS Job No. 81501

Dear Sirs:

We are submitting herewith, our engineering report on the subsurface investigation for the above project.

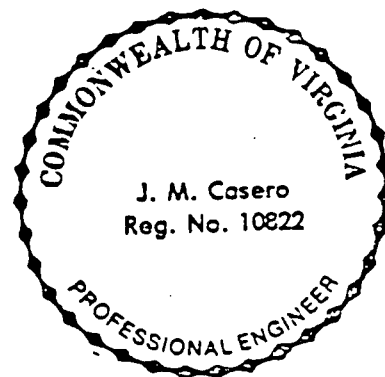
Based on the information obtained from the soil borings and laboratory test data, it appears that adequate support for the proposed tank may be obtained within a reasonable depth at the proposed site. Specific recommendations are discussed in detail in the body of the report.

Should you have any questions with regard to this report, please do not hesitate to contact us.

Very truly yours,
CARIBBEAN DRILLING SERVICES, INC.

Joseph M. Casero
Joseph M. Casero
Registered Professional Engineer

JMC/sc



301308

SOIL REPORT

SUBSURFACE INVESTIGATION FOR THE PROPOSED FIREWATER TANK COOPER LABORATORIES PLANT, FREDERIKSTED, ST. CROIX, U.S.V.I.

CDS Job No. 81501
August 19, 1980

INTRODUCTION

The subsurface investigation for the Proposed Firewater Tank to be located at the Cooper Laboratories Plant in Frederiksted, St. Croix, U.S. Virgin Islands, has been completed. A total of three (3) soil borings were performed and the results of these borings together with a location diagram are included with this report.

It is our understanding that the Proposed Tank will be approximately 37.0 ft. in diameter and approximately 38.0 ft. high. The tank is contemplated as a Firewater Reserve and is designed with a tank ring on a compacted and treated fill. Foundation requirements stipulate a bearing capacity of approximately 2,000 psf with minimal settlement. Finished grade has not been established at this time but is expected to be slightly higher than existing plant grade, for ease in piping.

The purpose of this report is to describe the soil conditions as encountered in the borings, to analyze the field and laboratory data and to submit recommendations regarding feasible foundation depths for the project requirements.

SUBSURFACE INVESTIGATION PROCEDURES

The soil borings were performed with a trailer-mounted drilling rig equipped with a hydraulic head used in the drilling and sampling operations. The boreholes were advanced using continuous flight augers and

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representative samples were obtained by means of split-barrel samplers in accordance with ASTM Specification D-1586.

In the split-barrel sampling procedure, standard penetration resistance values (blows per foot of a 140 lb. hammer falling 30 in. on a 2 in. O.D. split-barrel sampler were obtained). These resistance values (SPT) are an indication of the relative density of the soils in place.

All soil samples obtained in the field were sealed and forwarded to the laboratory for further examination and testing.

LABORATORY TESTING PROGRAM

Due to the nature of the soils encountered, a limited laboratory testing program was implemented. The samples were carefully examined and re-classified and the natural moisture content of representative portions was determined. The results of all laboratory tests are plotted graphically opposite the corresponding samples on the boring logs.

Careful boring logs were kept in the field where the soil samples were classified in accordance with the Unified Soil Classification System (USCS). At the completion of the testing program, the samples were again examined and the field classifications revised, where necessary.

SOIL CONDITIONS

The specific soil conditions at each boring location are detailed on the pertinent boring log. Typically, a medium dense brown sandy silt, approximately 2.0 ft. in total thickness, blankets the site. This stratum is in a loose to medium dense state.

Below this surface veneer, medium dense light brown clayey silts or sandy clayey silts were encountered which extended to depths ranging from 5.0 ft. at boring B-3, to a maximum of 8.0 ft. at boring B-2.

The clayey silts in turn are underlain by tough to very tough silty sandy clays which continue to the bottom of the boring B-1, and to approximately 12.0 ft. in boring B-3. Silty clays are absent in boring B-2 and the clayey silts previously mentioned extend to approximately 13.0 ft.

The lowest soil formation at borings B-2 and B-3, was a dense silty sand with varying percentages of gravel which continued to the maximum depth investigated (15.0 ft.).

Typically, below the surface veneer, density and strength increase with depth and moisture content decreases significantly below 7.0 ft.

WATER TABLE CONDITIONS

Water level observations made after boring are shown on the boring logs. Based on the available information, it appears that the hydrostatic water table was below the maximum depths investigated.

The hydrostatic water table should be anticipated to fluctuate throughout the year depending upon variations in precipitation and surface runoff.

Due to the possibility of occasional silty sand seams or gravel seams within the various formations, a perched water table may occur at the site during certain parts of the year. This condition would become evident during the time of construction.

301311

ANALYSIS AND RECOMMENDATIONS

Based on an analysis of the soil profile and the results of the laboratory tests, we recommend that the site be excavated to approximately el. 102, and the footing for the tank ring be excavated further to el. 101. For footings so located, we recommend an allowable total load soil bearing pressure of 2,000 psf.

Anticipated settlement for this load criteria should not exceed $\frac{1}{2}$ ". Differential settlements are not expected to exceed $\frac{1}{4}$ ". For the interior of the tank we recommend select backfill, preferably quarry screenings, between el. 102 and el. 103.5, be used. All backfill should be placed in 8 in. lifts (loose thickness) and compacted to a minimum of 95% of the maximum density as determined by ASTM Specification D-1557.

We also recommend that the upper 6 in. consist of either oiled salt free sand or preferably oiled quarry screenings to preserve the integrity of the tank bottom steel (i.e. reduce moisture migration and oxidation to the bottom plates).

GENERAL RECOMMENDATIONS

It should be noted that the proposed bearing soils are moisture sensitive. We therefore recommend that excavations not be left open for any extended period to minimize the possibility of saturation or overdrying.

If saturation of the bearing soils should occur, it will be necessary to remove the disturbed soil to full depth prior to pouring the concrete or backfilling within the tank ring. This precaution is necessary in order to prevent unduly high differential settlements upon imposition of load.

301312

Due to the presence of silty clays and clayey silts relatively close to the bottom of the foundation system, it is imperative that moisture migration to the foundation elements be minimized. This may be accomplished by sloping the site away from the tank in all directions. Further, we suggest paving an annulus around the tank ring with asphaltic concrete so that sheetwash from the tank sides will not penetrate the ring foundations or create erosion gullies. A 10.0 ft. annulus should be adequate. Needless to say, positive drainage away from the tank pad area to avoid local ponding is absolutely essential.

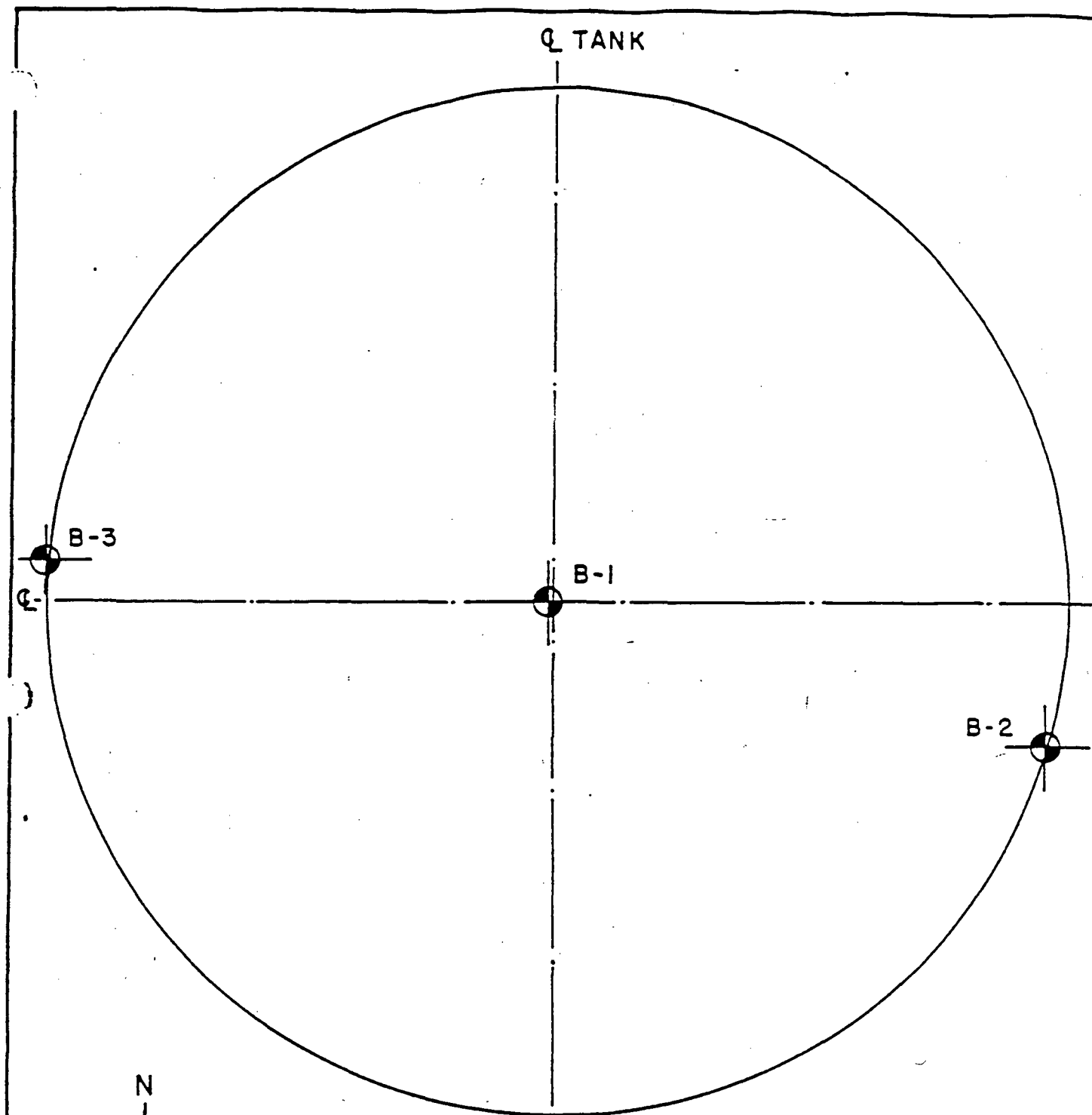
Additionally, we recommend that the excavation and backfill operations be inspected by a qualified soil technician to verify that the proper bearing soil has been reached and to insure that the compaction requirements are met. The technician should perform in-situ density tests and the necessary proctor tests to establish compliance with these specifications.

This report has been prepared in order to aid in the evaluation of the foundation soil parameters of this site and to assist in the design of this project. In the event that any changes in the design or location of the tank pad, as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or approved in writing by the soil and foundation engineer.

301313

SOIL BORING LOCATIONS

301314



SOIL BORING LOCATIONS		
PROPOSED FIREWATER TANK	SCALE 3/16" = 1'-0"	DRAWN BY GPC
		REVISED
CARIBBEAN DRILLING SERVICES INC.		
DATE 8-18-80	APPROVED BY JMC	DRAWING NUMBER 81501-D

301315

FIN 1122

SOIL BORINGS

301316

OWNER: COOPER LABORATORIES					LOG OF BORING NUMBER B-1				
PROJECT NAME PROPOSED FIREWATER TANK					ARCHITECT-ENGINEER				
SITE LOCATION FREDERIKSTED, ST. CROIX, U.S.V.I.					UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² 1 2 3 4 5 PLASTIC LIMIT % WATER CONTENT % LIQUID LIMIT % ⊗ — ● — △ 10 20 30 40 50 STANDARD PENETRATION ⊗ 10 20 30 40 50 BLOWS/FT.				
ELEVATION	DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE					
SURFACE ELEVATION 108.7						UNIT DRY WT. LBS./FT. ³			
		1	SS			See Note #1			
			PA			SANDY CLAYEY SILT, Light Brown to Brown, Medium Dense (ML-CL)			
		2	SS						
			PA			SANDY SILTY CLAY, Light Brown to Brown, Tough to very Tough (CL)			
		3	SS						
			PA			Bottom of Boring			
		4	SS						
Note #1: SANDY SILT W/ LIMESTONE FRAGMENTS, Brown to Dark Brown, Medium Dense (ML)									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

WL	WS OR WD	BORING STARTED 7/21/80	CARIBBEAN DRILLING SERVICES, INC. SOIL AND FOUNDATION CONSULTANTS
WL	BCR ACR	BORING COMPLETED 7/21/80	
WL	NONE - A.B.	RIG45-C FOREMAN KDE	
APPROVED BY JMC			CDS JOB NO. 81501 301317

OWNER COOPER LABORATORIES					LOG OF BORING NUMBER B-2				
PROJECT NAME PROPOSED FIREWATER TANK					ARCHITECT-ENGINEER				
SITE LOCATION FREDERIKSTED, ST. CROIX, U.S.V.I.					UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² 1 2 3 4 5 PLASTIC LIMIT % WATER CONTENT % LIQUID LIMIT % 10 20 30 40 50 STANDARD PENETRATION BLOWS/FT. 10 20 30 40 50				
ELEVATION DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE	RECOVERY					
					UNIT DRY WT. LBS./FT. ³				
					SURFACE ELEVATION 107.7				
	1	SS			SANDY SILT, Brown to Dark Brown, Medium Dense (ML)				
		PA							
	2	SS			SANDY CLAYEY SILT, Light Brown, Medium Dense (ML-CL)				
		PA							
	3	SS			trace gravel				
		PA							
10	4	SS			CLAYEY SILT W/ LIMESTONE FRAGMENTS, Brown, Dense (ML-CL)				
		PA							
15	5	SS			SILTY SAND & GRAVEL, Brown, Dense (SM-GM)				
					Bottom of Boring				
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.									
WL		WS OR WD		BORING STARTED 7/21/80		CARIBBEAN DRILLING SERVICES, INC. SOIL AND FOUNDATION CONSULTANTS 301318			
WL		BCR		BORING COMPLETED 7/21/80					
WL		NONE							

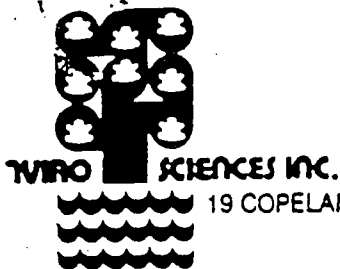
OWNER COOPER LABORATORIES					LOG OF BORING NUMBER B-3				
PROJECT NAME PROPOSED FIREWATER TANK					ARCHITECT-ENGINEER				
SITE LOCATION FREDERIKSTED, ST. CROIX, U.S.V.I.									
ELEVATION	DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE	RECOVERY	DESCRIPTION OF MATERIAL	UNIT DRY WT. LBS./FT. ³	UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² 1 2 3 4 5 PLASTIC LIMIT % X 10 20 30 40 50 WATER CONTENT % • 10 20 30 40 50 LIQUID LIMIT % △ 10 20 30 40 50 STANDARD PENETRATION ⊗ 10 20 30 40 50 BLOWS/FT. 10 20 30 40 50	
	X					SURFACE ELEVATION 110.5			
		1	SS			SANDY SILT W/ LIMESTONE FGMTS, Dark Brown, Medium Dense (ML)			
			PA						
		2	SS			CLAYEY SILT - SOME SAND, Brown, Medium Dense (ML-CL)			
			PA						
		3	SS						
			PA						
		4	SS			SILTY SANDY CLAY, Light Brown to Brown, Tough to very Tough (CL)			
			PA						
		5	SS			SILTY SAND - SOME GRAVEL, Brown, Dense (SM-GM)			
		Bottom of Boring							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

WL	WS OR WD	BORING STARTED 7/21/80	CARIBBEAN DRILLING SERVICES, INC. SOIL AND FOUNDATION CONSULTANTS
WL	BCR	ACR	
WL	NONE - ATR	BCR 45 C	

301319

Appendix G
Report Concerning Small Quantity Generator Status of Island Chemical



19 COPELAND RD., DENVILLE, NEW JERSEY 07834
(201) 366-6256

May 7, 1985

Mr. Robert Harris
U.S.E.P.A.
Region II
Room 1000
26 Federal Plaza
New York, NY 10007

Reference: Island Chemical Co., St. Croix, U.S.V.I.

Dear Mr. Harris:

Enclosed is information concerning the manifesting of hazardous material at Island Chemical Co. when operations ceased and prior to its sale by Berlex to Virgin Island Chemical Co. Included are eight (8) manifests.

In addition, there is an explanation as to why activities at the facility would classify it as a small generator.

We are anticipating a meeting in the immediate future with USEPA staff members to discuss this project.

If you have any questions, call me at 201-366-6256.

Very truly yours,

ENVIRO-SCIENCES, INC.

Alan L. Kyles, Ph.D.
Vice President

ALK/po (AK-8531)

Enclosure

cc: Mr. Robert Milos
Mr. Frank Curtis
Ray Willis, Ph.D.

301321

REPORT CONCERNING SMALL QUANTITY
GENERATOR STATUS OF ISLAND CHEMICAL

The Island Chemical Company (ICC) was incorporated in Delaware on July 21, 1978. All of the shares were then owned by Cooper Laboratories, Inc. ICC stock has never been publicly traded on any exchange.

The land currently under consideration, comprised of three acres more or less and situated at St. Croix, U.S.V.I. (the "leasehold") is owned by Charles H. Steffey, Inc. On May 1, 1969 Steffey leased the property to Houston Chemical Industries, Inc. Houston Chemical assigned the lease to Caribe Chemical Co., Inc. (subsequently known as Pierrel America, Inc.) on March 20, 1972.

On June 30, 1978 Pierrel America assigned the ground lease to Cooper Laboratories, Inc. On October 30, 1979 Cooper Laboratories assigned the lease to its subsidiary, ICC. On November 1, 1979 Cooper Laboratories sold all of the stock of ICC to Berlex Laboratories, Inc. (then known as ASAG Pharmaceuticals, Inc.)

Prior to the acquisition of the leasehold by Cooper Laboratories, it is believed the prior owners used the site to manufacture phenacetin and ethoxyquin. Shortly before Berlex

acquired Island Chemical, and with it the leasehold and improvements, the facility was being used by Cooper to perfect a four-step process licensed from a French company to convert quinine, a relatively inexpensive compound, to its dextrorotary isomer quinidine, a far more expensive product. Cooper halted its work on the French process in mid-1979. Quinidine is the active ingredient in Berlex's product QUINAGLUTE® (quinidine gluconate) DURA-TABS® (sustained release tablets).

After the acquisition of the facility in late 1979, ICC began preparation for the use of a quinidine process being developed by a West German concern. A single pilot batch was run with the French process, but the resulting product was not pure enough. It was not until October 1980 that sufficient planning and research had been done on the German process to warrant full staffing and personnel training at the St. Croix facility. It was thus not until the end of 1980 that production of pilot size batches was begun. In addition, after that time the plant also was used to reclaim quinidine from rejected lots of final product.

From the end of 1980 until the end of 1982 the St. Croix plant continued to experience production problems related to the purity and yield of the product and only during the last few months of 1982 were anything more than pilot batches produced. Early in 1982, Berlex made a strategic decision that

its backward integrating of the supply of quinidine was ill-advised since it caused Berlex to enter the chemical processing business with which it did not possess enough technical expertise. Consequently, the plant was permanently closed at the end of 1982. During its period of ownership, the plant was required only to convert quinine to quinidine or reclaim quinidine from final product. In both of these processes, toluene was used. In addition, quantities of pyridine were used in the French process.

Two laboratories were present at the St. Croix facility. An analytical laboratory was maintained to test raw materials, and to conduct in-process and final product testing. A process laboratory was also present at the site for product development functions, primarily the small scale duplication (1-5 liter quantities) of steps in the process to work out problems and test improvements.

Toluene. The German process in use for the conversion of quinine to quinidine involved neutralization, oxidation, and reduction. At several points of the process, toluene was used. This toluene was recovered at every step. The entire amount recovered in every case was stored and reused when the process was run the next time.

The same is true for the process used to recover quinidine from finished product. The toluene used in the process was recovered and reused when the process was run again.

Thus, the approximately 28,600 gallons of toluene on the site during ICC's use of the facility constantly was used in the two processes. At the time of the shut-down of the plant in December of 1982 by ICC, there was no further useful purpose for this material and it was manifested (see attached manifests IC-01 through IC-06) and shipped to Inland Chemical of Puerto Rico, Inc. of Manati, Puerto Rico, where it was burned.

Pyridine. Pyridine was used only in the French process, which was run only once by ICC. In addition, extremely small quantities of pyridine were on the ICC site for use as a reagent in the analytical and process laboratories. Unfortunately, some of this material found its way down a sink drain in the laboratory, giving rise to the pollution described under point 4 on page 2 of the Addendum of Progress Report submitted by Enviro-Sciences, Inc. As you can see from the extent of the contamination described in this report, only small quantities were involved.

Xylene. At the time ICC acquired the St. Croix site, approximately 6,900 gallons of xylene mixed with p-phenetidine was present. This substance was a raw material used by a former owner. It was at no time used by ICC. After the plant shut-down, it was shipped to Philipp Brothers Chemicals, Inc. in New York for sale. The sale unfortunately was not consummated and since no other purchaser could be found, the material was

thereafter manifested as a hazardous waste and shipped to Inland Chemical in Puerto Rico for burning. See manifests IC07 and IC08 attached.

Other Chemicals. As noted above, ICC maintained analytical and process laboratories on the site. Small quantities of laboratory chemicals were present in each. These included toluene; methyl chloride; alcohols, alkaloids and acids; benzophenone; and Dibah. These chemicals were for laboratory use only and were in containers of the pint, quart, liter and gallon sizes frequently seen in the laboratory. Only very small quantities would be used at a time in laboratory procedures, e.g., a half pint or less at a time.

Conclusion. Thus, as you can see from the foregoing, during the period of approximately two years when ICC operated the St.Croix site, the only wastes regularly generated were those stemming from the process and analytical laboratories. These would total no more than a few gallons or so a quarter. Thus, ICC was a small quantity generator during this period.

ART A:

DOCUMENT NO. TC01 P. R.

GENERATOR NAME Island Chemical Company, Incorporated		PHONE (809) 778-2200	EPA ID NO. 7210980631091
SITE ADDRESS Estaca 190 Estaca Bethlehem, St. Cruz U.S. Virgin Islands			
TRANSPORTER NO. 1 Trailer Marine Transport Corporation		PHONE (809) 778-4411	EPA ID NO. 7210980644371
SITE ADDRESS Isla Grande, Puerto Rico			
TRANSPORTER NO. 2 Transporte Diaz		PHONE (809) 702-7999	EPA ID NO. 7210980526331
SITE ADDRESS Long Point, Puerto Rico, San Juan, Puerto Rico			
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: Island Chemical of P.R., Inc.		PHONE (809) 856-1070	EPA ID NO. 7210980399711
SITE ADDRESS Ka. 51, Highway #2, Ponce, Puerto Rico			

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE

THIS FORM IS NO. _____ OF A TOTAL OF _____ THE FIRST MANIFEST DOCUMENT NO. IS _____ P. R.

GENERATOR	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS		EPA HAZ CODE	EPA WASTE TYPE
							NO.	TYPE		
1	Toluene	Flam. Liquid	1296	L	5.125	Gal.	1	1	1	P
2										
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

I hereby certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation according to the requirements of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The transporter will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

TITLE President	DATE SHIPPED MO. 11 DAY 18 YEAR 82	EXPECTED ARRIVAL DATE MO. 11 DAY 23 YEAR 82
TRANSPORTER NO. 1 VEHICLE NO. 301327	DATE RECEIVED MO. 11 DAY 23 YEAR 82	

TEAR AT THIS PERFORATION

PART B

GEN EPA ID NO.

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		DATE DELIVERED MO. 11 DAY 23 YEAR 82
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."		DATE RECEIVED MO. 11 DAY 23 YEAR 82
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		DATE RECEIVED MO. 11 DAY 23 YEAR 82
TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS		HANDLING METHOD
301327		1 ☒ 2 ☐
		3 ☐ 4 ☐
		5 ☐ 6 ☐
		7 ☐ 8 ☐
		9 ☐ 10 ☐
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form."		DATE RECEIVED MO. 11 DAY 23 YEAR 82
In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8392		DOCUMENT NO. <u>TC01</u> P. R.

HAZARDOUS WASTE MANIFEST

DOCUMENT NO.

P. R.

IC02

NAME Inland Chemical Company, Incorporated		PHONE (809) 778-2200	EPA ID NO. V I D 9 8 0 6 5 1 0 9
ADDRESS Route 130 Farate Bethlehem, St. Croix U.S. Virgin Islands		PHONE (809) 721-1313	
TRANSPORTER NO. 1 Trailer Marine Transport Corporation			P R D 9 8 0 6 4 4 5 7
SITE ADDRESS Isla Grande, Puerto Rico			
TRANSPORTER NO. 2 Transporte Diaz		PHONE (809) 792-7999	
SITE ADDRESS Zona Portuaria, Puerto Nuevo, San Juan, Puerto Rico			P R D 9 8 0 5 2 6 8 3
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY Inland Chemical of P.R., Inc.		PHONE (809) 854-1090	
SITE ADDRESS Km. 51, Highway #2, Manati, Puerto Rico			P R D 10 9 0 3 9 9 7 1 1

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE

THIS FORM IS NO. 1 OF A TOTAL OF 1 THE FIRST MANIFEST DOCUMENT NO. IS.

P. R.

I C 0 2

GENERATOR	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS		EGB EPA HAZ CODE	EGB/E WASTE
							NO.	TYPE		
1	TOLUENE RQ	Flam. Liquid	1294	L	512051	Gal.	11	TK	1	F10
2										
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE <i>Jerome H. Ludwig</i>	TITLE President	DATE SHIPPED MO. 11 DAY 29 YR. 1981	EXPECTED ARRIVAL DATE MO. 11 DAY 31 YR. 1981
TRANSPORTER NO. 1 SIGNATURE To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest.	TRANSPORTER NO. 1 VEHICLE SCXU	DATE RECEIVED MO. 11 DAY 31 YR. 1981	

TEAR AT THIS PERFORATION

PART B

GEN EPA ID#

V I D 9 8 0 6 5 1 0 9

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment"	DATE DELIVERED MO. DAY
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	DATE RECEIVED MO. DAY
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment"	DATE RECEIVED MO. DAY
TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS	HANDLING METHOD 1 2 3 4 5 6
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form"	DATE RECEIVED MO. DAY

In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8992

301328

DOCUMENT NO.

P. R.

ENVIRONMENTAL QUALITY BOARD HAZARDOUS WASTE MANIFEST

DOCUMENT NO.

P. R.

BUSINESS		PHONE	EPA
Company, Incorporated		(408) 774-2800	
OWNER		PHONE	
Address			
ADDRESS		PHONE	
Address		(408) 774-2800	
ADDRESS		PHONE	
Address			
ADDRESS		PHONE	
Address		(408) 774-2800	
ADDRESS		PHONE	
Address			

NOTE: IF TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE

THIS FORM IS NO. 1 OF A TOTAL OF 1 THE FIRST MANIFEST DOCUMENT NO. IS P. R.

PRIOR US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS		EPA 10-2	EPA 10-3
						40	TYPE		
	Flammable Liquid	1111							

GENERAL HAZARD INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

IDENTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation in accordance with the regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named T. Transport, Storage or Disposal Facility and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct in the knowledge of the

MANUFACTURER'S SIGNATURE	TITLE	DATE SHIPPED	EXPECTED ARRIVAL DATE
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment have been accepted for transport conforming with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE NO. NO.	DATE RECEIVED	

TEAR AT THIS PERFORATION

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially changed the contents of this shipment."		DATE RECEIVED
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment have been accepted for transport conforming with the description on this manifest."		DATE RECEIVED
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially changed the contents of this shipment."		DATE RECEIVED
TREATMENT, STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR REJECTION OF REJECTED MATERIALS		DATE RECEIVED
301329		DATE RECEIVED
TREATMENT, STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except for the discrepancies noted on this form."		DATE RECEIVED
		DATE RECEIVED

DOCUMENT NO.

P. R.

DOCUMENT NO. P. R. 11-113

SHIPPER NAME: Inland Chemical Co., Inc. PHONE: (109) 771-2200

SITE ADDRESS: P.O. Box 134 Estero Bethlehem, St. Croix, U.S. Virgin Islands

TRANSPORTER NO 1: T. L. Marina Transport Corporation PHONE: (109) 721-1313

SITE ADDRESS: P.O. Box 134, Puerto Rico

TRANSPORTER NO 2: T. L. Marina Transport Corporation PHONE: (109) 792-7999

SITE ADDRESS: P.O. Box 134, Puerto Rico

TREATMENT, STORAGE OR DISPOSAL (TSO) FACILITY: Inland Chemical of P.R., Inc. PHONE: (109) 854-1120

SITE ADDRESS: Highway 22, Manati, Puerto Rico

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE

THIS FORM IS NO. 1 OF A TOTAL OF 1 THE FIRST MANIFEST DOCUMENT NO. IS. P. R. I, C, O, J, I

PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS		EOB EPA HAZ CODE	EOB/EPA WASTE ID
						NO.	TYPE		
1 Toluene	Flam. Liquid	1204	L	147.63	Gal.	1	TK	1	F1
2									
3									
4									
5									
6									

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE: *Jerome H. Ludwig* TITLE: President DATE SHIPPED: 12/17/86 EXPECTED ARRIVAL DATE: 12/17/86

TRANSPORTER NO 1 SIGNATURE: To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest. TRANSPORTER NO. 1 VEHICLE ID. NO. SCXU 213110503 DATE RECEIVED: 12/17/86

TEAR AT THIS PERFORATION

PART B

TRANSPORTER NO 1 SIGNATURE: *Jerome H. Ludwig* DATE DELIVERED: 12/17/86

TRANSPORTER NO 2 SIGNATURE: *Alfredo* TRANSPORTER NO. 2 VEHICLE ID. NO. DATE RECEIVED: 12/17/86

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE: *Alfredo* DATE RECEIVED: 12/22/86

A:

P. R IC 04

IF ANY OF THESE TWO TRANSMISSIONS HAS NOT TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE:

THIS LIST IS AN 1 OF A TOTAL OF 1 THE FIRST MANIFEST DOCUMENT NO IS

1. DATE 10/10/2011

133-371

PMH - Belvauch 12-14-56

V I D E O

100 110 120

1. NAME OF THE SUBMITTER: <i>E. Garcia / J. K. K. K. K.</i> 2. DATE OF RECEIPT: <i>12 23</i> 3. NAME OF THE SUBMITTER: <i>E. Garcia / J. K. K. K. K.</i> 4. DATE OF RECEIPT: <i>12 23</i> 5. NAME OF THE SUBMITTER: <i>E. Garcia / J. K. K. K. K.</i> 6. DATE OF RECEIPT: <i>12 23</i> 7. NAME OF THE SUBMITTER: <i>E. Garcia / J. K. K. K. K.</i> 8. DATE OF RECEIPT: <i>12 23</i> 9. NAME OF THE SUBMITTER: <i>E. Garcia / J. K. K. K. K.</i> 10. DATE OF RECEIPT: <i>12 23</i>	301331 <i>J. K. K. K. K.</i> <i>12 23</i>

PART A:

DOCUMENT NO.

P. R. IC 05

GENERATOR NAME Island Chemical Co., Inc.	PHONE (809) 778-2200	V I D 9 8 0 6 5 1 0
SITE ADDRESS Estate 130, Estate Bethlehem, St. Croix, U.S. Virgin Islands		
TRANSPORTER NO. 1 Trailer Marine Transport Corporation	PHONE (809) 721-1313	P R D 9 8 0 6 4 4 5
SITE ADDRESS Isla Grande, Puerto Rico		
TRANSPORTER NO. 2 Transporte Diaz	PHONE (809) 792-7999	P R D 9 8 0 5 2 6 8
SITE ADDRESS Zone Portuaria, Puerto Nuevo, San Juan, Puerto Rico		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY Inland Chemical of P.R., Inc.	PHONE (809) 854-1090	P R D 0 9 0 3 9 9 7
SITE ADDRESS Km. 51, Highway # 2, Manati, Puerto Rico		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE

THIS FORM IS NO. 1 OF A TOTAL OF 1 THE FIRST MANIFEST DOCUMENT NO. IS

P. R. I C 0 5

PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS		EPA HAZ CODE	EPA WASTE
						NO	TYPE		
1 Toluene RQ	Flam. Liquid	1294	L	147.31	Gal	1	TK	1	FC
2									
3									
4									
5									
6									

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT IN A MANNER AND SIGNATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were transported to the transporter named The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE <i>Jerome H. Ludwig</i> Jerome H. Ludwig	TITLE President	DATE SHIPPED MO DAY YR 11 10 83	EXPECTED ARRIVAL DATE MO DAY YR 11 24 83
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."		TRANSPORTER NO. 1 VEHICLE NO NO S C X U 2131105119	DATE RECEIVED MO DAY YR 10 11 83

M. A. Serrano TEAR AT THIS PERFORATION *RHD-31210*

PART B

GEN EPA ID#

V I D 9 8 0 6 5 1 0

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."	DATE DELIVERED MO DAY YR 11 12 83
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	DATE RECEIVED MO DAY YR 11 12 83
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."	DATE RECEIVED MO DAY YR 11 12 83
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form."	DATE RECEIVED MO DAY YR 11 20 83
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form."	
In case of emergency or spill immediately call the Environmental Quality Board (EQB) 775 8997	

301332

MANIFEST NO. IC-05

PART A:

DOCUMENT NO

P R I C U G

GENERATOR NAME Island Chemical Co., Inc.	PHONE (809) 778-2200	EPA ID NO V11D98065101
SITE ADDRESS Estate 130, Estate Bethlehem, St. Croix, U.S. Virgin Islands		
TRANSPORTER NO. 1 Trailer Marine Transport Corporation	PHONE (809) 721-1313	EPA ID NO P1R10903914151
SITE ADDRESS Isla Grande, Puerto Rico		
TRANSPORTER NO. 2 Transporte Diaz	PHONE (809) 722-7999	EPA ID NO P1R1098052601
SITE ADDRESS Zona Portuaria, Puerto Nuevo, San Juan, Puerto Rico		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY Inland Chemical of P.R., Inc.	PHONE (809) 854-1090	EPA ID NO P1R1090391971
SITE ADDRESS Km. 51, Highway # 2, Manati, Puerto Rico		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE

THIS FORM IS NO. 1 OF A TOTAL OF 1 THE FIRST MANIFEST DOCUMENT NO. IS P R I C U G

PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS		LUN EPA HAZ CODE	FOB WASTE
						NO	TYPE		
1 Toluene RO	Flam. Liquid	1294	L	13724	Gal	1	T/K	1	F/O
2									
3									
4									
5									
6									

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (for IDENTIFICATION OF AIRCRAFT WASTES IN ACCIDENTS) AND OTHER HAZARDOUS MATERIALS WHICH DO NOT HAVE TO BE MANIFESTED

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transport according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were shipped to the transporter named, the Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a written permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE <i>Jerome H. Ludwig</i> Jerome H. Ludwig	TITLE President	DATE SHIPPED JUN 11 1983	EXPIRATION DATE JUN 11 1984

TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE NO. SCXU	DATE RECEIVED JUN 11 1983	DATE RECEIVED JUN 11 1983

M.A. Serrano TEAR AT THIS PERFORATION *31209*

PART B

EPA ID NO

V11D98065101

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."	TRANSPORTER NO. 1 VEHICLE NO.	DATE DELIVERED JUN 24 1983
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE NO.	DATE RECEIVED JUN 24 1983
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		
TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS		HANDLING METHOD
301333		1 302
		3
		5
		7
		9
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form."		DATE RECEIVED JUN 24 1983
In case of emergency or spill immediately call the Environmental Quality Board (EQB) 775-8792		

DOCUMENT NO

P R

PART A:

DOCUMENT NO.

P. R. IC 07

GENERATOR NAME Island Chemical Co., Inc.	PHONE (809) 778-2200	EPA ID NO V11D9180651
SITE ADDRESS Estate 130, Estate Bethlehem, St. Croix, U.S. Virgin Islands		
TRANSPORTER NO. 1 Trailer Marine Transport Corporation	PHONE (809) 721-1313	
SITE ADDRESS Isla Grande, Puerto Rico		
TRANSPORTER NO. 2 Transporte Diaz	PHONE (809) 792-7999	
SITE ADDRESS Zona Portuaria, Puerto Nuevo, San Juan, Puerto Rico		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY Inland Chemical of P.R., Inc.	PHONE (809) 854-1090	
SITE ADDRESS Km. 51, Highway #12, Manati, Puerto Rico		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE

THIS FORM IS NO. 1 OF A TOTAL OF 1 THE FIRST MANIFEST DOCUMENT NO. IS.

P. R.

I, C, O, 7

PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS		EPA HAZ CODE
						NO	TYPE	
1 Xylene RO	Flam. Liquid	1307	L	31320	gal	1	TK	I
2								
3								
4								
5								
6								

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE) DO NOT HAVE TO BE MANIFESTED

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named Treatment, Storage or Disposal Facility and will accept the shipment of hazardous waste, and have a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE Jerome H. Ludwig	TITLE President	DATE SHIPPED 11/13/83	EXPECTED ARRIVAL 11/13/83
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."		TRANSPORTER NO. 1 VEHICLE NO. SECS 1912181211910	DATE RECEIVED 11/13/83

TEAR AT THIS PERFORATION

PART B

CEN EPA ID#

V11D9180651

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."	DATE DELIVERED 11/13/83
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE NO. 1912181211910
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."	DATE RECEIVED 11/13/83
TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS	HANDLING METHOD 1 2 3 4 5 6
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "I certify that the contents of this shipment conforms with the description on this manifest except those described and noted on this form."	DATE RECEIVED 11/13/83
In case of emergency or spill immediately call the Environmental Quality Board (809) 725 8992	

301334

DOCUMENT NO.

P. 11

PART A:

DOCUMENT NO

P R IC 08

GENERATOR NAME Island Chemical Co., Inc.	PHONE (809) 778-2200	TPA NO V11D9806510
SITE ADDRESS Estate 130, Estate Bethlehem, St. Croix, U.S. Virgin Islands		
TRANSPORTER NO 1 Trailer Marine Transport Corporation	PHONE (809) 721-1313	TPA NO P1R1D9806445
SITE ADDRESS Isla Grande, Puerto Rico		
TRANSPORTER NO 2 Transporte Diaz	PHONE (809) 792-7999	TPA NO P1R1D98065268
SITE ADDRESS Zona Portuaria, Puerto Nuevo, San Juan, Puerto Rico		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY Inland Chemical of P.R., Inc.	PHONE (809) 854-1090	TPA NO P1R1D98063997
SITE ADDRESS Km. 51, Highway #2, Manati, Puerto Rico		
IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPRIATE		
THIS FORM IS NO. 1 OF A TOTAL OF 1 THE FIRST MANIFEST DOCUMENT NO IS P R IC 08		

PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNIT	CONTAINERS NO.	TYPE	TOB TPA HAZ CODE	TO WA:
1 Xylene RQ	Flam. Liquid	1307	1	13161216	gal	1	11	1	1
2									
3									
4									
5									
6									

IF SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF APPROPRIATE WASTE SPECIFICATIONS) OR HAZARDOUS MATERIALS ARE REQUIRED, THEY SHOULD BE INDICATED HERE. IF A HAZARDOUS MATERIAL IS SHIPPED, IT MUST BE IDENTIFIED BY NAME AND HAZARD CLASS. IF A HAZARDOUS MATERIAL IS SHIPPED, IT MUST BE IDENTIFIED BY NAME AND HAZARD CLASS. IF A HAZARDOUS MATERIAL IS SHIPPED, IT MUST BE IDENTIFIED BY NAME AND HAZARD CLASS.

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the transporter named. The treatment, storage or disposal facility and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE Jerome H. Ludwig	TITLE President	DATE SHIPPED 11/14/83	EXPECTED ARRIVAL DATE 11/15/83
TRANSPORTER NO 1 SIGNATURE: In the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest.		TRANSPORTER NO 1 VEHICLE NO SECS 9218212131	DATE RECEIVED 11/15/83

HEAR AT THIS OFFICE

PART B

P R IC 08

V11D9806510

TRANSPORTER NO 1 SIGNATURE: I certify that I have not tampered with or materially altered the contents of this shipment.	DATE RECEIVED 11/15/83
TRANSPORTER NO 2 SIGNATURE: In the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest.	DATE RECEIVED 11/15/83
TRANSPORTER NO 2 SIGNATURE: I certify that I have not tampered with or materially altered the contents of this shipment.	DATE RECEIVED 11/15/83
TREATMENT, STORAGE OR DISPOSAL FACILITY INDICATED BY GENERATOR BETWEEN MANIFEST AND SHIPMENT OR LISTING OF IN A GING FOR AND DISPOSITION OF REJECTED MATERIALS	HANDLING METHOD 1 2 3 4 5 6
301335	DATE RECEIVED 11/15/83
TREATMENT, STORAGE OR DISPOSAL FACILITY INDICATED BY GENERATOR BETWEEN MANIFEST AND SHIPMENT OR LISTING OF IN A GING FOR AND DISPOSITION OF REJECTED MATERIALS	DATE RECEIVED 11/15/83
In case of emergency or spill, immediately call the Governmental Safety Board (809) 775-8992	DOCUMENT NO P R

Appendix H
May 17, 1983 RCRA Inspection Form

Is. Chem Co.

RCRA INSPECTION FORM

Report Prepared For:

Generator

Transporter

HWM (TSD) Facility

Copy of Report Sent to the Facility

☒ Only

☐

☐

☐

Facility Information

Name: Island Chemical Co.

Address: Box 6733, Christiansted
St. Croix, U.I. 00820

EPA ID#: VID 980 651 095

Date of Inspection: 17 May 1983 (1st visit on
20 June 1983)

Participating Personnel

Virgin Islands
~~State of EPA~~ Personnel: Robert P. van Eepoel, G.O.U.I.
DCCA/DNR

Facility Personnel: Mr. Alec B. Smith
Site Manager

Report Prepared by (Name): R.P. van Eepoel

Agency: G.O.U.I./DCCA/DNR

Telephone Number: 809 - 774 - ~~540-8700~~ 6420

Jerome H. Ludwig, Ph.D.
President

Island Chemical Co., Inc.
P.O. Box 6733
Christiansted, St. Croix
U.S. Virgin Islands 00820
(809) 778-2200



Subsidiary of BERLEX
Wayne, N. J. 07470
(201) 694-4100

300 Fairfield Rd

Alec B. Smith
Plant Engineer

Island Chemical Co., Inc.
P.O. Box 6733
Christiansted, St. Croix
U.S. Virgin Islands 00820
(809) 778-2200



Subsidiary of BERLEX
Cedar Knolls, NJ 07927
(201) 540-8700

301337

Is there reason to believe that the facility has hazardous waste on-site?

NO

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

- ☐ Company admits that its waste is hazardous during the inspection.
- ☐ Company admitted the waste is hazardous in its RCRA notification and/or Part A Permit Application.
- ☐ The waste material is listed in the regulations as a hazardous waste from a non-specific source (261.31).
- ☐ The waste material is listed in the regulations as a hazardous waste from a specific source (261.32).
- ☐ The material or product is listed in the regulations as a discarded commercial chemical product (261.33).
- ☐ Testing has shown characteristics of ignitability, corrosivity, reactivity or extraction procedure toxicity, or has revealed hazardous constituents (please attach analysis report).
- ☐ Company is unsure but there is reason to believe that waste materials are hazardous. (Explain).

Summary of Findings

Facility Description and Operations

Island Chemical Co., ST. Croix is a subsidiary company of BERLEX Laboratories, Inc. Wayne, N.J., which company, in turn, is owned by one of the very large west German chemical pharmaceutical companies. Island Chemical bought an existing plant on ST. Croix and converted it to the manufacture of quinidine - from quinine. After 1 year of operations the parent company made the decision to close the new ST. Croix facility, and operations ceased last fall. The Island Chemical Co. operations did not generate any hazardous waste, but in closing the facility and selling out the inventory, the company personnel discovered that fourteen steel storage tanks in a tank farm along the western boundary of the property were not empty, as they had been told at plant purchase. These tanks contained liquids which

Describe the activities that result in the generation of hazardous waste.

wastes for disposal. Island Chemical Co. made application as a hazardous waste generator and listed its waste code for disposal, based on their sampling and analyses of the tank contents. The tanks were drained and cleaned and the hazardous waste were shipped

Island Chemical Company

Identify the hazardous waste located on site and estimate the approximate quantities of each. (Identify these codes)

out to ~~the~~ Puerto Rico for disposal. Tankage, sealing, marking and transporting of the wastes were handled by O'Neal Trucking, St. Louis, agents for ~~the~~

4 T of Puerto Rico, a permitted transporter. O'Neal Trucking mailed manifest copies to EPA-Region II and to BERTEX Laboratories, Inc., in New Jersey. Copies are not available at the St. Louis facility. There no longer is any hazardous waste at the site. Several persons are still at the site, for maintenance and security, and will leave the plant on 1 Feb 0

-C-

Summary, Conclusions and Recommendations

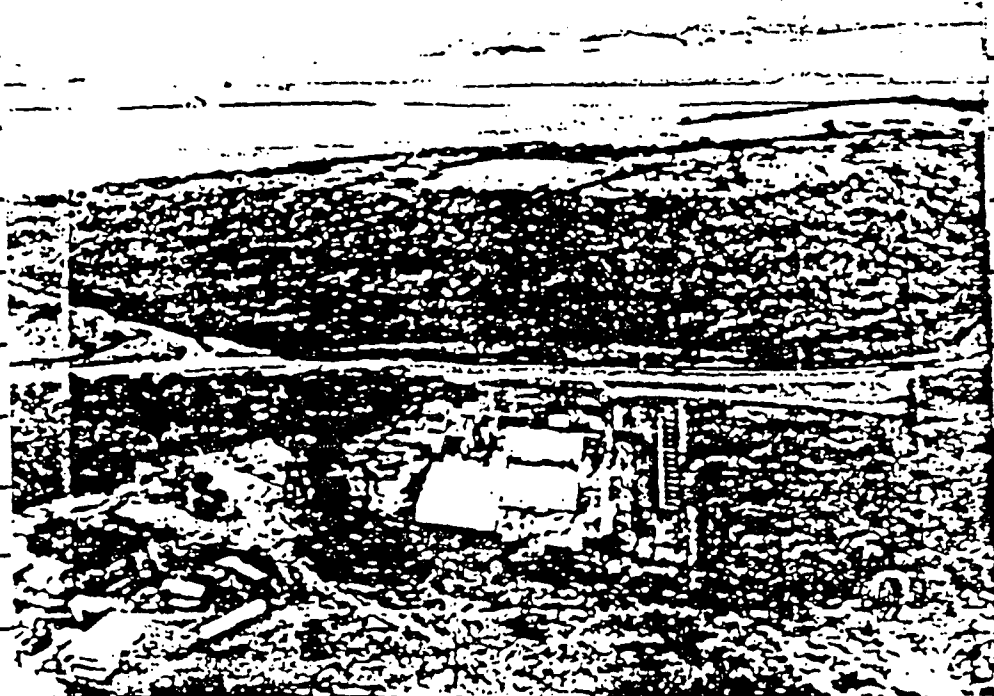
Island Chemical Company is closed, and the plant site will be abandoned in June. The hazardous waste generator listing should be removed from the file. The plant site may be sold to some other company, if a buyer can be found. Plant and grounds are in excellent condition and the equipment has been operated regularly to prevent deterioration. Production could be started up in a matter of hours or days.

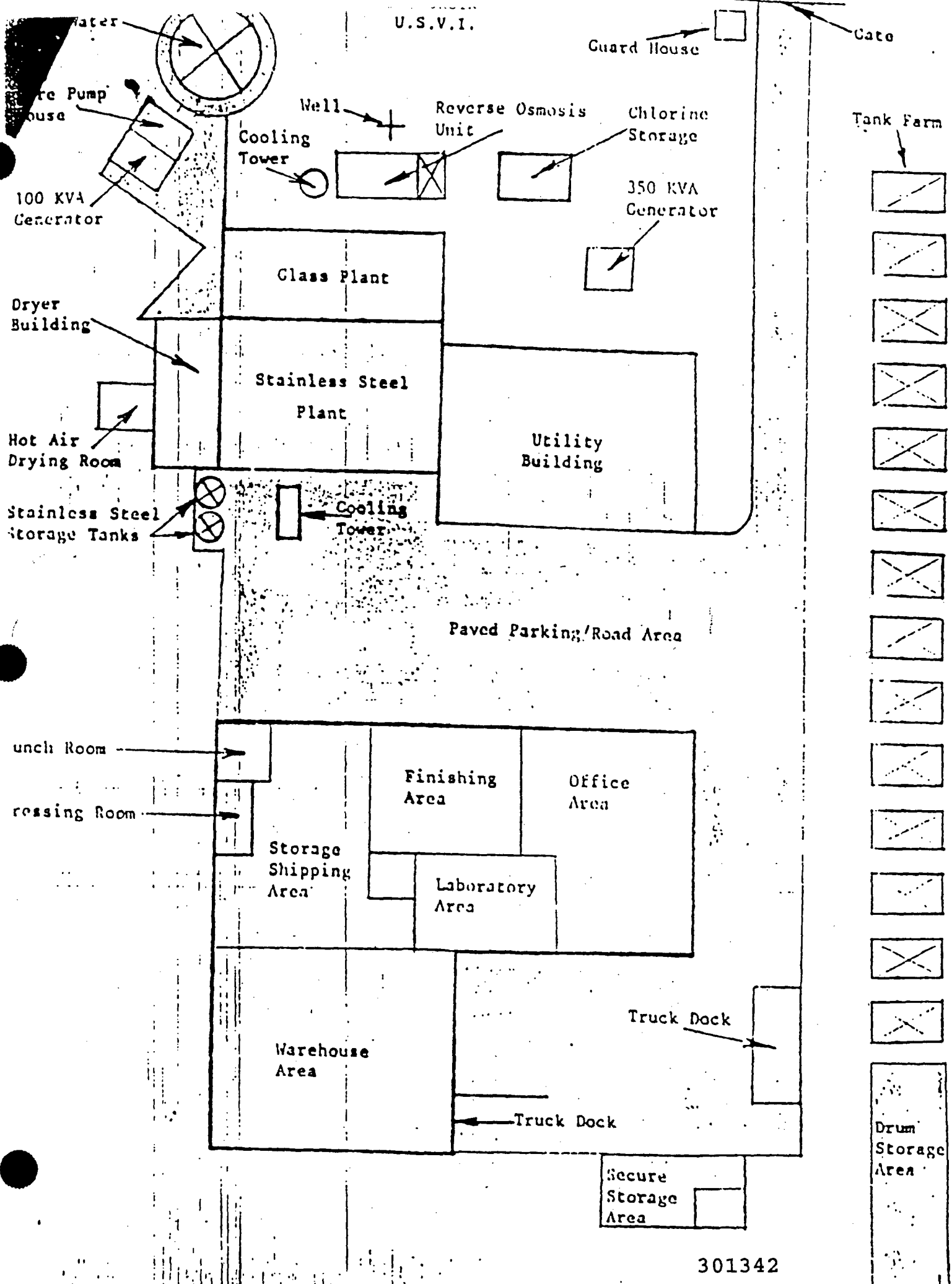
301340A

or days. Isl. Ch. Co. Inc.

Summary, Conclusions and Recommendations

manufacture of quinidine did not
generate hazardous waste. A
site sketch is attached.





GENERATOR INSPECTION CHECKLIST

40 CFR 262 Subpart A - General

YES NO N/A

262.11 - Hazardous Waste Determination

- 1) Did the generator test its waste to determine whether it is hazardous?

Is the waste hazardous?

- 2) Is the generator determining that its waste exhibits a hazardous waste characteristic(s) based on its knowledge of the material(s) or processes used?

~~YES~~ ~~NO~~ ~~N/A~~
— — X

40 CFR 262 Subpart B - The Manifest

Has hazardous waste been shipped off-site since November 19, 1980?

If yes, approximately how many shipments, off-site, have been made and describe the approximate size of an average shipment made on a monthly basis. If facility is a small quantity generator, please explain.

Information is not available at closed plant site

262.21 Does each manifest (or representative sample) have the following information? Please circle the missing elements.

- a manifest document number? — — —
- the generators name, mailing address, telephone number and I.D. Number? — — —
- the transporters name and EPA I.D. Number? — — —
- the name, address and EPA I.D. Number of the designated facility? — — —
- a description of the wastes (DOT) — — —
- the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers as loaded into or onto the transport vehicle? — — —
- a certification that the materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation under regulations of the DOT and EPA? — — —

(obtain a copy of the incomplete manifests)

*Site does not have copies of manifests —
copies are in New Jersey*

40 CFR 262 - Subpart D - Recordkeeping and Reporting YES NO N/A

262.40 Has the generator maintained facility records since November 19, 1980? (manifest, exception report and waste analysis)

262.42 Has the generator received signed copies (from the TSD facility) of all the manifests for waste shipped off-site more than 35 days ago?

If not, have Exception Reports been submitted to EPA covering any of these shipments made more than 45 days ago?

40 CFR 262 - Subpart C - Pretransportation Requirements

262.30 Before transporting or offering hazardous waste for transportation off-site does the generator:

- 1) Package the waste in accordance with applicable DOT regulations (i.e., 49 CFR Parts 173, 178 & 179)
- 2) Label each package according to DOT (i.e., 49 CFR 172)
- 3) Mark each package according to DOT (i.e., CFR 172)
- 4) Mark each container of 110 gallons or less with the words "HAZARDOUS WASTE - FEDERAL LAW PROHIBITS IMPROPER DISPOSAL. IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. EPA", and include the generators name, address and manifest document number. (i.e., 49 CFR 172.304)

262.34 Accumulation Time

1) How is waste accumulated on-site?

- ☐ Containers
- ☐ Tanks
- ☐ Surface impoundments (complete SWMF checklist)
- ☐ Piles (complete SWMF checklist)

2) Is waste accumulated for more than 90 days? If yes, complete SWMF checklist.

3) Is each container clearly dated with each period of accumulation so as to be visible for inspection?

4) Is each container or tank marked or labeled with the words "HAZARDOUS WASTE" or in compliance with the DOT labeling requirements?

STOP HERE IF THE HAZARDOUS WASTE MGT FACILITY (TSD) CHECKLIST IS FILLED OUT

301344

4/11 tanks & containers are empty. -3-

262.34 - Short Term Accumulation Standards

(For generators who accumulate waste in tanks or containers for 90 days or less).

40 CFR 265 - Subpart I Containers

YES NO N/A

265.170 - What type of containers are used for storage. Describe the size, type and quantity and nature of waste (e.g., 12 fifty-five gallon drums of waste acetone).

265.171 - Do the containers appear to be in good condition, not in danger of leaking?

If not, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.

265.172 - Are hazardous waste stored in containers made of compatible materials?

If not, please explain.

265.173(a) - Are all containers closed except those in use?

265.173(b) - Do containers appear to be properly opened, handled or stored in a manner which will minimize the risk of the container rupturing or leaking?

265.174 - Is the storage area inspected at least weekly?

265.176 - Are containers holding ignitable and reactive waste located at least 50 feet (15 meters) away from the facility's property line?

265.177 - Are incompatible wastes stored separate from each other?

40 CFR 265 Subpart J - Tanks

265.190 1) What are the approximate number and size of tanks containing hazardous waste?

2) Identify the waste treated/stored in each tank.

265.192 - General Operating Requirements

1) Are the tanks maintained so that there is no evidence of past, present, or risk of future leaks?

If no, please explain

	YES	NO	N/A
2) Are there leaking tanks?	—	—	☒
3) Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is not danger of ruptures, corrosion, leaks or other failures?	—	—	☒
4) Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?	—	—	☒
5) If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank? e.g. bypass system to a standby tank	—	—	☒
 265.194 - <u>Inspections</u>			
1) Is the tank(s) inspected each operating day for:			
a) discharge control equipment	—	—	☒
b) monitoring equipment	—	—	☒
c) level of waste in tank	—	—	☒
2) Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures?	—	—	☒
3) Are there underground tanks?	—	—	☒
If yes, how many and can they be entered for inspection?	—	—	☒
 265.198 - Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction?			
If no, please explain.	—	—	☒
 265.199 - Does it appear that incompatible wastes are being stored separate from each other?			
	—	—	☒
 265.16 - <u>Personnel Training</u>			
1) Have facility personnel successfully completed a program of classroom instruction or on-the-job training within 6 months of having been employed?	—	—	☒
If yes, have facility personnel taken part in an annual review of training?	—	—	☒

YES NO N/A

2) Is there written documentation of the following:

-job title for each position at the facility related to hazardous waste management and the name of the employee filling each job? _____

-type and amount of training to be given to personnel in jobs related to hazardous waste management? _____

-actual training or experience received by personnel? _____

3) Are training records kept on all employees for at least 3 years? _____

40 CFR 265 - Subpart C - Preparedness and Prevention

265.32 Does the facility comply with preparedness and prevention requirements including maintaining:

-an internal communications or alarm system? _____

-a telephone or other device to summon emergency assistance from local authorities? _____

-portable fire equipment? _____

-water at adequate volume and pressure to supply water hose streams, foam producing equipment, etc. _____

265.33 Is equipment tested and maintained? _____

265.34 Is there immediate access to communications or alarm systems during handling of hazardous waste? _____

265.35 Adequate aisle space? _____

If no, please explain storage pattern.

In your opinion, do the types of waste on-site require all of the above procedures, or are some not needed:

Explain.

YES NO N/A

40 CFR 265 - Subpart D - Contingency Plan and Emergency Procedures

Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions or any unplanned release of hazardous waste?

- 1) Does the plan describe arrangements made with the local authorities?
- 2) Has the contingency plan been submitted to the local authorities?
- 3) Does the plan list names, addresses and phone numbers of Emergency Coordinators?
- 4) Does the plan have a list of what emergency equipment is available?
- 5) Is there a provision for evacuating facility personnel?
- 6) Was there an emergency coordinator present or on call at

Appendix I
Waste Classification Analyses and Disposal Profiles

BERLEX

Laboratories, Inc.

Subsidiary of Schering AG, West Germany

REPORT APPROVAL FORM

TITLE OF REPORT: Analysis of Material from Bulk Storage Tanks

#7, #8, #9 and #13, Island Chemical Company, St. Croix, Virgin Islands

DEPARTMENT/TESTING FACILITY: Medicinal Chemistry

STUDY NUMBER(S): _____ DATE OF REPORT: November 10, 1982

REPORT PREPARED BY: Daniel Szeto

SUBMITTED BY: Ronald A. Crote
Study Director/Monitor

DATE: 11/15/82

APPROVED BY: William C. Lamm
Department Director

DATE: 11/15/82

APPROVED BY: A. D. Rudick
Corp. Vice President, R & D

DATE: 11/15/82

RECEIVED BY: B. B. dy
Vice President, R & D Admin.

DATE: 11/16/82

BERLEX REPORT NUMBER: 82169

REPORT DISTRIBUTION:

R & D ADMINISTRATION/ARCHIVE (Original)

1 Medicinal Chemistry (Originating Dept.)

2 Operations Department

3 Island Chemical Co., Inc.

301350

RESEARCH REPORT ☒ CHEMISTRY ☐ PHARMACOLOGY ☐ PHARMACEUTICAL DEVELOP.	DEPT. REPORT NO. DATE:	PAGE OF 1 PAGES 5
	BERLEX REPORT NO. 82169	CHARACTERISTIC BIOLOGICAL EFFECT
TITLE OF REPORT: Analysis of Material from Bulk Storage Tanks #7, #8, #9 and #13, Island Chemical Company, St. Croix, Virgin Islands		
KEYWORDS (3 to 5): Storage Tank Analysis, Island Chemical, chemical composition		PROTOCOL NO.:
GROUP/SECTION: Medicinal Chemistry Department Analytical Chemistry Section		STUDIES WERE CONDUCTED FROM: TO: 10/25/82 11/02/82
EXPERIMENTS CONDUCTED BY: J. Traina, E. Nisperos, M. Johnson and D. Szeto		AUTHOR SIGNATURE: <i>David, J. T.</i>
		SECTION HEAD SIGNATURE: <i>[Signature]</i>
COMPOUNDS STUDIED <u>CK NO.:</u> <u>GENERIC NAME:</u> <u>FORMULATION NO.:</u> Toluene, xylene, p-phenetidine, 9-fluor- enone		
PURPOSE OF STUDY: To determine the composition and identify the contents of material from bulk storage tanks in St. Croix.		

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Material from bulk storage tanks in St. Croix were fractionated by simple vacuum distillations. Fractions and residues were identified by NMR and IR. The results are as follows:

<u>Tank #7</u>	xylene mixture	ca. 14%
	p-phenetidine	ca. 80%
<u>Tank #8</u>	toluene	ca. 39%
	9-fluorenone	ca. 50%
<u>Tank #9</u>	p-phenetidine	ca. 95%
<u>Tank #13</u>	p-phenetidine	ca. 95%

Analysis of Material from Bulk Storage
Tanks #7, #8, #9 and #13, Island Chemical Company,
St. Croix, Virgin Islands

All four samples Tank #7, #8, #9 and #13 were received in 10 ml screw cap vials. These samples were analyzed as described below and the results are summarized in Tables I, II and III.

Tank #7

This sample was analyzed by semi-micro distillation. Two volatile fractions collected at the ranges of 75-100°C and 100°C-120°C were both identified by NMR and IR as mixed xylene. The residue was also identified by NMR and IR as *p*-phenetidine.

Tank #8

This sample was analyzed by semi-micro distillation. Two volatile fractions collected at the ranges of 75-100°C and 100-120°C were both identified by NMR and IR as toluene. The residue was analyzed by NMR and IR. The spectral data indicated that the residue was mainly composed of 9-fluorenone.

Tank #9

No volatile fraction distilled from the sample when heated. The sample was fractionated by semi-micro vacuum distillation. Practically 1 fraction was obtained by vacuum distillation. The fraction and a small amount of material left in the distilling flask were identified by NMR and IR as *p*-phenetidine.

Tank #13

No volatile fraction distilled from the sample when heated. The sample was fractionated by semi-micro vacuum distillation. Practically 1 fraction was obtained by vacuum distillation. The fraction and a small amount of material left in the distilling flask were identified as *p*-phenetidine by NMR and IR.

Table 1: Composition and Physical Appearance of Samples

	<u>Tanks</u>			
	<u>#7</u>	<u>#8</u>	<u>#9</u>	<u>#13</u>
Composition	xylene mixture ca. 14% p-phenetidine ca. 80%*	toluene ca. 39% 9-fluorenone ca. 50%*	p-phenetidine ca. 95%*	p-phenetidine ca. 95%*
Physical Appearance	slightly heavy; black liquid	slightly heavy; black liquid	slightly heavy; black liquid	slightly heavy; black liquid
Total Nitrogen Content (by Galbraith Lab.)	7.56%	1.83%	9.49%	9.54%
Total Chlorine Content (by Galbraith Lab.)	0.088%	0.081%	0.24%	0.24%
Chlorinated hydrocarbon content (by Beilstein test)	Not detectable (N.D.)	N.D.	N.D.	N.D.

*Estimated by NMR.

Table II: Identification and Properties of Volatiles

	<u>Tanks</u>			
	<u>#7</u>	<u>#8</u>	<u>#9</u>	<u>#13</u>
Boiling Point volatile	Mixed xylenes Lit. 137-140°C	Toluene Lit. 110°C	---	---
Flash point	xylene Lit. 17°C(o-) Lit. 25°C(m-&p-)	Toluene Lit. 4.4°C	---	---
Identification	NMR, IR	NMR, IR	---	---

Table III: Identification and Properties of Non-Volatiles

	<u>Tanks</u>			
	<u>#7</u>	<u>#8</u>	<u>#9</u>	<u>#13</u>
Boiling point non-volatile	p-phenetidine Lit. 250°C (760mmHg)	9-fluorenone Lit. 342°C	p-phenetidine 95°C (0.05mmHg) Lit. 250°C (760mmHg)	p-phenetidine 95-105°C (0.05mmHg) Lit. 250°C (760mmHg)
Identification	NMR, IR	NMR, IR	NMR, IR	NMR, IR



VIRO SCIENCES INC.

19 COPELAND RD., DENVER, NEW JERSEY 07834
(201) 366-6256

August 15, 1985

Mr. Austin Moorehead
Department of Conservation and Cultural Affairs
Division of Natural Resources Management
14F Building 111
Water Gut Homes
Christiansted, St. Croix, U.S.V.I. 00820

Dear Mr. Moorehead:

As per our telephone conversation on August 9, Enviro-Sciences, Inc. is requesting permission to dispose of contaminated materials on St. Croix. The materials are on the Island Chemical Company site (now known as Virgin Island Chemical Company) and have been collected and stored in drums or will be collected for disposal. The collection and clean up of these materials has been described previously in documents submitted to your office.

The location and description of materials are as follows:

Location	Type	Amount	Major Contaminents
1) Drain line	Soil	18, 55 gal. drums	Toluene, see Data Sheets 1 & 2
2) Dryer (soil collected from a spill)	Soil	14, 55 gal. drums	Toluene, see Data Sheets 3-6
	Water	2, 55 gal. drums	

The Data Sheets are inclusive of a four week drying period. Note that toluene concentrations decreased from 4000 ppm to 1.5 ppm during this time interval. Drying continued for an additional week after the last sampling period.

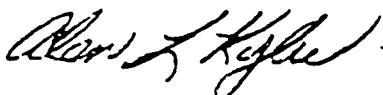
3) Process Pit	Sludge	2,000 gals.	Toluene, zinc, see Data Sheets 7-11
4) Process Pit	Water	6,000 gals.	Data Sheets 12-17

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We would appreciate your timely review of this request and a determination as to the disposal location of each item listed above. I will contact you next week as to your progress. If you have any question, please call me collect at 919/499-5182.

Very truly yours,

ENVIRO-SCIENCES, INC.



Alan L. Kyles, PhD.
Vice President

AK/po (AK-85225)

cc: Mr. Greg Rhymers
Dept. Conservation & Cultural Affairs
P.O. Box 4399
St. Thomas, U.S.V.I. 00801

301357



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116REPORT DATE: August 15, 1985LAB # 42882CLIENT: ENVIRO SCIENCES, INCSAMPLE SOURCE: ICC (BERLEX). PROJECTSAMPLE ID: Drain Line #1SAMPLE DATE: 6/7/85SAMPLED BY: A. KylesAT LAB DATE: 6/18/85SOIL SAMPLE
LABORATORY ANALYSIS
REPORTIdentification of Black Soil:

<u>Parameter</u>	<u>Result</u>
Benzene _____	<u>0.10</u>
Toluene _____	<u>235</u>
Ethylbenzene _____	<u>0.25</u>
M-Xylene _____	<u>0.33</u>
O,P-Xylene _____	<u>0.27</u>

Sample has "Toluene like" or solvent odor.

UNKNOWN PEAKS

R.T. 6.89 at 40 mg/kg

R.T. 30.81 at 2 mg/kg

All results reported in mg/kg.

We thank you for this opportunity to serve you. If you have any questions,
please do not hesitate to call.

INDUSTRIAL CORROSION MANAGEMENT, INC.

Edwin Tichenor
Vice President

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1.

=Less Than



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07048 201-584-0330

CLIENT: ENVIRO SCIENCE - ICC (Berlex)

SAMPLE DATE: 6/7/85

SAMPLED BY: A. Kyles

AT LAB DATE: 6/18/85

SOIL SAMPLE

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: July 31, 1985

LAB # 42881

SAMPLE ID: Drain Line #2

**VOLATILE ORGANICS BY PURGE AND TRAP
By GC BTX/HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE -----	X
BROMOMETHANE -----	X
VINYL CHLORIDE -----	X
CHLOROETHANE -----	X
METHYLENE CHLORIDE -----	1,240
ACETONE -----	X
1,1-DICHLOROETHYLENE -----	X
1,1-DICHLOROETHANE **-----	X
t-1,2-DICHLOROETHYLENE -----	X
CHLOROFORM -----	68
1,2-DICHLOROETHANE -----	X
t-BUTYL METHYL ETHER -----	X
1,1,1-TRICHLOROETHANE -----	X
CARBON TETRACHLORIDE -----	10
BROMODICHLOROMETHANE -----	X
1,2-DICHLOROPROPANE -----	X

*[c-1,3-DICHLOROPROPENE -----	X
t-1,3-DICHLOROPROPENE -----	X
TCE (TRICHLOROETHYLENE)-----	X
*[1,1,2-TRICHLOROETHANE -----	X
DIBROMOCHLOROMETHANE -----	X
BENZENE -----	X
DIISOPROPYL ETHER -----	X
2-CHLOROETHYL VINYL ETHER -----	X
BROMOFORM -----	X
1,1,2,2-TETRACHLOROETHANE -----	X
PCE (TETRACHLOROETHYLENE -----	X
TOLUENE -----	5,600
CHLOROBENZENE -----	X
ETHYLBENZENE -----	9
m-XYLENE -----	X
*[o-XYLENE -----	X
p-XYLENE -----	X

*Compounds co-elute (could be either material).

LT=Less Than, GT=Greater Than

dwb=Dry Weight Basis. X=Not Detected

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of: _____

X Unknown peaks detected (retention time, estimated amount): Xylenes ---18; 10 unknown hydrocarbon peaks ranging from 2 to 10 mg/kg.

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichenor
Edwin Tichenor, Vice President



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07068 201-584-0330

SOIL SAMPLE

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: July 31, 1985

LAB # 42889

SAMPLE ID: Dryer

CLIENT: ENVIRO SCIENCE ICC (Berlex)

SAMPLE DATE: 6/14/85

SAMPLED BY: A. Kylea

AT LAB DATE: 6/18/85

VOLATILE ORGANICS BY PURGE AND TRAP
By GC BTX/HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	X
BROMOMETHANE	X
VINYL CHLORIDE	X
CHLOROETHANE	X
METHYLENE CHLORIDE	X
ACETONE	X
1,1-DICHLOROETHYLENE	X
1,1-DICHLOROETHANE **	X
t-1,2-DICHLOROETHYLENE	4.0
CHLOROFORM	340
1,2-DICHLOROETHANE	4.2
t-BUTYL METHYL ETHER	X
1,1,1-TRICHLOROETHANE	X
CARBON TETRACHLORIDE	X
BROMODICHLOROMETHANE	X
1,2-DICHLOROPROPANE	X

*Compounds co-elute (could be either material).

LT=Less Than, GT=Greater Than
dwb=Dry Weight Basis. X=Not Detected

*[c-1,3-DICHLOROPROPENE	X
t-1,3-DICHLOROPROPENE	X
TCE (TRICHLOROETHYLENE)	X
*[1,1,2-TRICHLOROETHANE	X
DIBROMOCHLOROMETHANE	6.6
BENZENE	X
DIISOPROPYL ETHER	X
2-CHLOROETHYL VINYL ETHER	X
BROMOFORM	X
1,1,2,2-TETRACHLOROETHANE	X
PCE (TETRACHLOROETHYLENE)	X
TOLUENE	4,000
CHLOROBENZENE	X
ETHYLBENZENE	16.1
M-XYLENE	17.7
*[O-XYLENE	15.1
P-XYLENE	

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of: 1 mg/kg dwb.

Unknown peaks detected (retention time, estimated amount):

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichenor, Vice President

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Data Sheet 3

REPORT DATE: August 15, 1985

LAB # 43747

CLIENT: ENVIRO SCIENCES, INC. - ICC (BERLEX) PROJECT

SAMPLE ID: Dryer

SAMPLE DATE: 7/1/85

SAMPLED BY: Enviro Sciences

AT LAB DATE: 7/11/85

**VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY / HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE-----	X	1,2-DICHLOROPROPANE-----	X
BROMOMETHANE-----	X	*c-1,3-DICHLOROPROPENE-----	X
VINYL CHLORIDE-----	X	*t-1,3-DICHLOROPROPENE-----	X
CHLOROETHANE-----	X	TCE (TRICHLOROETHYLENE)-----	X
METHYLENE CHLORIDE-----	X	*1,1,2-TRICHLOROETHANE-----	X
ACETONE-----	7	DIBROMOCHLOROMETHANE-----	X
1,1-DICHLOROETHYLENE-----	X	BENZENE-----	X
1,1-DICHLOROETHANE **-----	X	DIISOPROPYL ETHER-----	X
t-1,2-DICHLOROETHYLENE-----	X	2-CHLOROETHYL VINYL ETHER-----	X
CHLOROFORM-----	X	BROMOFORM-----	X
1,2-DICHLOROETHANE-----	X	1,1,2,2-TETRACHLOROETHANE-----	X
t-BUTYL METHYL ETHER-----	X	PCE (TETRACHLOROETHYLENE)-----	X
1,1,1-TRICHLOROETHANE-----	X	TOLUENE-----	0.41
CARBON TETRACHLORIDE-----	X	CHLOROBENZENE-----	X
BROMODICHLOROMETHANE-----	X	ETHYLBENZENE-----	X

*Compounds co-elute (could be either material).

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

LT=Less Than dwb=Dry Weight Basis.

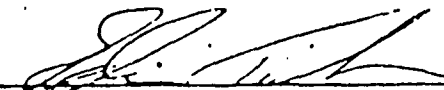
GT=Greater Than X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of _____ mg/kg dwb.

X Unknown peaks detected (retention time, estimated amount) numerous other hydrocarbon peaks, 0.02 to 0.1 mg/kg

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor, Vice President

REPORT DATE: August 15, 1985

LAB # 43752

CLIENT: ENVIRO SCIENCES, INC. - ICC (BERLEX) PROJECT

SAMPLE ID: Dryer

SAMPLE DATE: 7/1/85

SAMPLED BY: Enviro Sciences

AT LAB DATE: 7/11/85

**VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY / HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE	-----	X
BROMOMETHANE	-----	X
VINYL CHLORIDE	-----	X
CHLOROETHANE	-----	X
METHYLENE CHLORIDE	-----	X
ACETONE	-----	2.0
1,1-DICHLOROETHYLENE	-----	X
1,1-DICHLOROETHANE **	-----	X
t-1,2-DICHLOROETHYLENE	-----	X
CHLOROFORM	-----	X
1,2-DICHLOROETHANE	-----	X
t-BUTYL METHYL ETHER	-----	X
1,1,1-TRICHLOROETHANE	-----	X
CARBON TETRACHLORIDE	-----	X
BROMODICHLOROMETHANE	-----	X

*Compounds co-elute (could be either material).

LT=Less Than dwb=Dry Weight Basis.

GT=Greater Than X=Not Detected

1,2-DICHLOROPROPANE	-----	X
*[c-1,3-DICHLOROPROPENE	-----	X
t-1,3-DICHLOROPROPENE	-----	X
TCE (TRICHLOROETHYLENE)	-----	X
*[1,1,2-TRICHLOROETHANE	-----	X
DIBROMOCHLOROMETHANE	-----	X
BENZENE	-----	X
DIISOPROPYL ETHER	-----	X
2-CHLOROETHYL VINYL ETHER	-----	X
BROMOFORM	-----	X
1,1,2,2-TETRACHLOROETHANE	-----	X
PCE (TETRACHLOROETHYLENE)	-----	X
TOLUENE	-----	1.5
CHLOROBENZENE	-----	X
ETHYLBENZENE	-----	X

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

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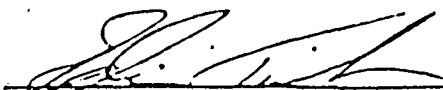
For the above listed Volatile Pollutants, nothing detected at a sensitivity level of _____ mg/kg dwb.

X Unknown peaks detected (retention time, estimated amount) 34.07 @ 15 mg/kg

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

ET/

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor, Vice President

REPORT DATE: August 15, 1985

LAB # 44629

CLIENT: ENVIRO SCIENCES, INC. - ICC (BERLEX) PROJECT

SAMPLE ID: Dryer

SAMPLE DATE: 7/17/85

SAMPLED BY: Enviro Sciences

AT LAB DATE: 7/25/85

**VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY / HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE	X
BROMOMETHANE	X
VINYL CHLORIDE	X
CHLOROETHANE	X
METHYLENE CHLORIDE	X
ACETONE	1.2
1,1-DICHLOROETHYLENE	X
1,1-DICHLOROETHANE **	X
t-1,2-DICHLOROETHYLENE	X
CHLOROFORM	X
1,2-DICHLOROETHANE	X
t-BUTYL METHYL ETHER	X
1,1,1-TRICHLOROETHANE	X
CARBON TETRACHLORIDE	X
BROMODICHLOROMETHANE	X

*Compounds co-elute (could be either material).

LT=Less Than dwb=Dry Weight Basis.

GT=Greater Than X=Not Detected

1,2-DICHLOROPROPANE	X
*[c-1,3-DICHLOROPROPENE	X
t-1,3-DICHLOROPROPENE	X
TCE (TRICHLOROETHYLENE)	X
*[1,1,2-TRICHLOROETHANE	X
DIBROMOCHLOROMETHANE	X
BENZENE	X
DIISOPROPYL ETHER	X
2-CHLOROETHYL VINYL ETHER	X
BROMOFORM	X
1,1,2,2-TETRACHLOROETHANE	X
PCE (TETRACHLOROETHYLENE)	0.07
TOLUENE	0.36
CHLOROBENZENE	X
ETHYLBENZENE	X

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of mg/kg dwb.

X Unknown peaks detected (retention time, estimated amount) numerous other hydrocarbon peaks 0.01 to 1 mg/kg

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

ET/

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor, Vice President



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

SOIL
SAMPLE

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: July 31, 1985

LAB # 42886 & 42887-COMPOSITE

CLIENT: ENVIRO SCIENCES

SAMPLE SOURCE: ICC (Berlex)

SAMPLE DATE: 6/14/85 SAMPLED BY: A.Kyles AT LAB DATE: 6/18/85

**PRIORITY POLLUTANT VOLATILE ORGANICS + 40
by GC/MS + 15 PEAKS**

Parameter	Result	Parameter	Result
acrolein*-----	X	1,2-dichloropropane -----	X
acrylonitrile*-----	X	1,3-dichloropropylene -----	X
benzene -----	X	ethylbenzene -----	X
bromoform -----	X	methyl bromide -----	X
carbon tetrachloride-----	X	methyl chloride -----	X
chlorobenzene -----	X	methylene chloride -----	125
chlorodibromomethane -----	X	1,1,2,2-tetrachloroethane -----	X
chloroethane -----	X	tetrachloroethylene -----	X
2-chloroethylvinyl ether -----	X	toluene -----	1,560
chloroform -----	220	1,2-trans-dichloroethylene -----	X
dichlorobromomethane -----	X	1,1,1-trichloroethane -----	X
1,1-dichloroethane -----	X	1,1,2-trichloroethane -----	X
1,2-dichloroethane -----	X	trichloroethylene -----	X
1,1-dichloroethylene -----	X	vinyl chloride -----	X

Results reported in mg/kg (ppm), dry weight basis.

*Detection Limit 100 ppm

LT=Less than

X=Not detected

**OTHER COMPOUNDS DETECTED
APPROXIMATE CONCENTRATIONS**

benzyl acetate ----- 22
chloromethyl benzene -----1430
1-chloro-2-methyl benzene--- 40

INDUSTRIAL CORROSION MANAGEMENT, INC.

Edwin Tichenor
Edwin Tichenor
Vice President

ET/jmg

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**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory 10 #14116

REPORT DATE: July 31, 1985

LAB # 42886 & 42887 COMPOSITE

SOIL SAMPLE

CLIENT: ENVIRO SCIENCE

SAMPLE SOURCE: ICC (Berlex)

SAMPLE DATE: 6/14/85 SAMPLED BY: A. Kyles AT LAB DATE: 6/18/85

**PESTICIDE & PCB EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS**

<u>Parameter</u>	<u>Result</u>
ldrin -----	LT 2
-BHC -----	LT 2
-BHC -----	LT 2
-BHC -----	LT 2
-BHC -----	LT 2
-BHC -----	LT 2
hlordane -----	LT 12
,4'-DDD -----	LT 3
,4'-DDE -----	LT 3
DDT -----	LT 3
drin -----	LT 3
ndosulfan I -----	LT 3
ndosulfan II -----	LT 3
ndosulfan Sulfate -----	LT 3
ndrin -----	LT 3
ndrin Aldehyde -----	LT 3
eptachlor -----	LT 3
eptachlor Epoxide -----	LT 3
oxaphene -----	LT 12
CB-1016 -----	LT 45
CB-1221 -----	LT 45
CB-1232 -----	LT 45
CB-1242 -----	LT 45
CB-1248 -----	LT 45
CB-1254 -----	LT 45
CB-1260 -----	LT 45

All results are reported in mg/kg (ppm), dry weight basis.

INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichanor
Edwin Tichanor
Vice President

L/jmg
L=Less Than
X=Not Detected

301365

INDUSTRIAL CORROSION MGMT., INC.



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

SOIL SAMPLE

NJDEP Certified Drinking Water
Wastewater Laboratory 10 #14116

REPORT DATE: July 31, 1985

LAB # 42886 & 42887 Composite

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201 584 0171

CLIENT: ENVIRO SCIENCES

SAMPLE SOURCE: ICC (Berlex)

SAMPLE DATE: 6/14/85 SAMPLED BY: A. Kyles AT LAB DATE: 6/18/85

PRIORITY POLLUTANTS + 40

TOXIC POLLUTANTS: Metals, Cyanide and Total Phenols

<u>PARAMETER</u>	<u>RESULT</u>
Total Antimony -----	<u>LT 118</u>
Total Arsenic -----	<u>40.0</u>
Total Beryllium -----	<u>LT 2.87</u>
Total Cadmium -----	<u>22.8</u>
Total Chromium -----	<u>592</u>
Total Copper -----	<u>327</u>
Total Lead -----	<u>688</u>
Total Mercury -----	<u>2.73</u>
Total Nickel -----	<u>134</u>
Total Selenium -----	<u>LT 1.08</u>
Total Silver -----	<u>LT 7.48</u>
Total Thallium -----	<u>LT 66.2</u>
Total Zinc -----	<u>3,594</u>
Total Cyanide -----	<u>1.44</u>
Total Phenol -----	<u>9.01</u>

All results are reported in mg/kg (ppm); dry weight basis.

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Very truly yours,
INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichenor
Edwin Tichenor
Vice President

ET/jmg
LT=Less Than
X=Not Detected

301366



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 44418

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE SOURCE: ICC (BERLEX) PROJECT

SAMPLE ID: St. Croix

SAMPLE DATE: unknown

SAMPLED BY: Al Kyles

AT LAB DATE: 7/22/85

19 July 1985

WATER

PRIORITY POLLUTANT VOLATILE ORGANICS
by GC/MS

Parameter	Result	Parameter	Result
acrolein*	X	1,2-dichloropropane	X
acrylonitrile*	X	1,3-dichloropropylene	X
benzene	0.04	ethylbenzene	X
bromoform	X	methyl bromide	X
carbon tetrachloride	X	methyl chloride	X
chlorobenzene	X	methylene chloride	X
chlorodibromomethane	X	1,1,2,2-tetrachloroethane	X
chloroethane	X	tetrachloroethylene	X
2-chloroethylvinyl ether	X	toluene	0.38
chloroform	X	1,2-trans-dichloroethylene	X
dichlorobromomethane	X	1,1,1-trichloroethane	X
1,1-dichloroethane	X	1,1,2-trichloroethane	X
1,2-dichloroethane	X	trichloroethylene	X
1,1-dichloroethylene	X	vinyl chloride	X

Results reported in mg/l (ppm). Detection limit 0.001 mg/l (ppm).

*Detection Limit: 0.1 mg/l

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg

LT=Less Than
X=Not Detected

Chen
1253

301367



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

never certified drinking water/wastewater 66
Laboratory ID #14116

Data Sheet 13

REPORT DATE: August 15, 1985

LAB # 44418

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE SOURCE: ICC(BERLEX) St. Croix

SAMPLE DATE: ~~unknown~~ 19 AUGUST '85 SAMPLED BY: Al Kyles AT LAB DATE: 7/22/85

WATER

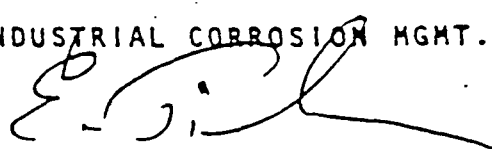
PESTICIDE & PCB EXTRACTABLES
PRIORITY POLLUTANTS
by GC/MS

Parameter	Result
Aldrin	LT 0.01
a-BHC	LT 0.01
b-BHC	LT 0.01
d-BHC	LT 0.01
g-BHC	LT 0.01
Chlordane	LT 0.02
4,4'-DDD	LT 0.01
4,4'-DDE	LT 0.01
4,4'-DDT	LT 0.01
Dieldrin	LT 0.01
Endosulfan I	LT 0.01
Endosulfan II	LT 0.01
Endosulfan Sulfate	LT 0.01
Endrin	LT 0.01
Endrin Aldehyde	LT 0.01
Heptachlor	LT 0.01
Heptachlor Epoxide	LT 0.01
Toxaphene	LT 0.02

PCB-1016	LT 0.01
PCB-1221	LT 0.01
PCB-1232	LT 0.01
PCB-1242	LT 0.01
PCB-1248	LT 0.01
PCB-1254	LT 0.01
PCB-1260	LT 0.01

All results reported in mg/l (ppm).

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg
LT=Less than
X=Not detected

301368



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07048 201-544-0330

NJDEP. Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 44418

CLIENT: ENVIRO SCIENCES, INC.,

SAMPLE SOURCE: ICC (BERLEX) PROJECT

SAMPLE ID: ST. Croix

SAMPLE DATE: ~~unknown~~

SAMPLED BY: Al Kyles

AT LAB DATE: 7/22/85

19 July 1985

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS
by GC/MS

Parameter	Result
acenaphthene	X
acenaphthylene	X
anthracene	X
benzidine	X
benzo(a)anthracene	X
benzo(a)pyrene	X
3,4-benzofluoranthene	X
benzo(ghi)perylene	X
benzo(k)fluoranthene	X
bis(2-chloroethoxy)methane	X
bis(2-chloroethyl)ether	X
bis(2-chloroisopropyl)ether	X
bis(2-ethylhexyl)phthalate	X
4-bromophenyl phenyl ether	X
butylbenzyl phthalate	X
2-chloronaphthalene	X
4-chlorophenyl phenyl ether	X
chrysene	X
dibenzo(a,h)anthracene	X
1,2-dichlorobenzene	X
1,3-dichlorobenzene	X
1,4-dichlorobenzene	X
3,3-dichlorobenzidine	X

Parameter	Result
diethyl phthalate	X
dimethyl phthalate	X
di-n-butyl phthalate	X
2,4-dinitrotoluene	X
2,6-dinitrotoluene	X
di-n-octyl phthalate	X
1,2-diphenylhydrazine (as azobenzene)	X
fluoranthene	X
fluorene	X
hexachlorobenzene	X
hexachlorobutadiene	X
hexachlorocyclopentadiene	X
hexachloroethane	X
indeno(1,2,3-cd)pyrene	X
isophorone	X
naphthalene	X
nitrobenzene	X
N-nitrosodimethylamine	X
N-nitrosodi-n-propylamine	X
N-nitrosodiphenylamine	X
phenanthrene	X
pyrene	X
1,2,4-trichlorobenzene	X

None of the above Priority Pollutants detected at a sensitivity level of 0.03 mg/l (ppm)

**Other compounds see Addendum I

LT=Less Than
X=Not Detected
FT/1mg

INDUSTRIAL CORROSION MANAGEMENT, INC.

Edwin Tichenor
Vice President



REPORT DATE: August 15, 1985

LAB # 44418

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE SOURCE: ICC (Berlex)

SAMPLE ID: St. Croix

SAMPLE DATE: unknown 19 July 1985 SAMPLED BY: Al. Kyles AT LAB DATE: 7/22/85

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS

ADDENDUM I

OTHER COMPOUNDS DETECTED
by GC/MS

<u>Parameter</u>	<u>Result</u>
benzaldehyde	3.0
chloromethyl benzene	0.3
benzene methanol	24.0
phenyl acetate	26.0
diphenyl methane	0.4
1-1'-[oxybis(methylene)]bis benzene	0.4

All results are reported in mg/l (ppm).

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

INDUSTRIAL CORROSION MANAGEMENT, INC.

Edwin Tichenor
Vice President

ET/jmg
encl.
LT=Less Than



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 44418

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE SOURCE ICC (BERLEX) PROJECT ST. Croix

SAMPLE DATE: unknown SAMPLED BY: Al Kyles AT LAB DATE: 7/22/85

19 July 1985

WATER

ACID EXTRACTABLES
PRIORITY POLLUTANTS by GC/MS

<u>Parameter</u>	<u>Result</u>
2-chlorophenol -----	<u>X</u>
2-nitrophenol -----	<u>X</u>
phenol -----	<u>X</u>
2,4-dimethylphenol -----	<u>X</u>
2,4-dichlorophenol -----	<u>X</u>
2,4,6-trichlorophenol -----	<u>X</u>
pentachlorophenol -----	<u>X</u>
2,4-dinitrophenol -----	<u>X</u>
4,6-dinitro-o-cresol -----	<u>X</u>
4-nitrophenol -----	<u>X</u>
4-chloro-3 methyl phenol -----	<u>X</u>

None of the above Priority Pollutants detected at a sensitivity level of 0.01 mg/l (p)
OTHER PEAKS DETECTED: benzoic acid @ 3 mg/l

INDUSTRIAL CORROSION MGMT., INC

Edwin Tichenor
Vice President

ET:jmg

LT=Less Than

X=Not Detected

301371

**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**NJDEP Certified Drinking Water
Wastewater Laboratory ID #14116REPORT DATE: August 15, 1985LAB # 44418

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201 584 0171

CLIENT: ENVIRO SCIENCES INC.SAMPLE SOURCE: ICC (BERLEX) PROJECTSAMPLE ID: St. CroixSAMPLE DATE: ~~unknown~~ SAMPLED BY: Al Kyles AT LAB DATE: 7/22/8519 JULY 1985PRIORITY POLLUTANTSWATER SAMPLETOXIC POLLUTANTS: Metals, Cyanide and Total PhenolsPARAMETERRESULT

Total Antimony -----	<u>LT 0.016</u>
Total Arsenic -----	<u>LT 0.005</u>
Total Beryllium -----	<u>LT 0.013</u>
Total Cadmium -----	<u>0.003</u>
Total Chromium -----	<u>0.027</u>
Total Copper -----	<u>0.153</u>
Total Lead -----	<u>0.011</u>
Total Mercury -----	<u>0.001</u>
Total Nickel -----	<u>0.080</u>
Total Selenium -----	<u>LT 0.005</u>
Total Silver -----	<u>0.008</u>
Total Thallium -----	<u>0.029</u>
Total Zinc -----	<u>4.85</u>
Total Cyanide -----	<u>0.053</u>
Total Phenol -----	<u>0.161</u>

All results are reported in mg/l (ppm).

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Very truly yours,
INDUSTRIAL CORROSION MGMT., INC.Edwin Tichenor
Vice President

ET/jmg

LT=Less Than

X=Not Detected

301372

19 COPELAND RD., DENVER, NEW JERSEY 07834

Installation: ICC (Berlex)				Samplers: (Signature) <i>Alan L. Kyles</i>			
Survey No.:							
Sample No.	Station Location	Analysis	Date	Time	Sample Type		No. of Containers
					Comp.	Grab	
1	Drain Line 42881	Toluene	6/8/85			X	2
	[* Identify the contents of the black soil sample.]						
2	Laboratory Pit 42883	Pyridine	6/14/85			X	4
3	Laboratory Pit-duplicate 42884	VOA / GC #5	6/14/85			X	2
	[* Time limit may have expired, if so do not run.]						
4	Pit-duplicate (liquid) 42885	Priority Pollutants	6/14/85	Held.		X	2
5	Pit-Interface (liquid/sludge) 42886	combine and run	6/14/85			X	2
6	Pit-sludge 42887	priority pollutants	6/14/85	P+40	*	X	4
	[* One container has a white lump, segregate it and analyze for quinidine.]						
7	Dryer by GC #5 42889	Toluene	6/14/85			X	2
Relinquished by: (Sign.) <i>Janet L. Miller</i>			Received by: (Sign.) <i>Robert L. Kyles</i>		Date/Time 6/18/85/12N.		
Relinquished by: (Sign.)			Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)			Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.) <i>Robert L. Kyles</i>			Rec'd by Laboratory for field analysis (Sign.) <i>Alan L. Kyles</i>		Date/Time 6/18/85 12:45		
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by:		Date/Time		
Method of Shipment:				Express Air Freight			
				<i>* Benzal Acetate</i> 301373			

LAB NO. 42885

Pit duplicate (liquid) Priority Pollutants +40
(Process Pit)

Samples not analyzed because sample volume too small.

CHAIN OF CUSTODY RECORD

18 COPELAND RD., DENVER, NEW JERSEY 07834

 Installation: *ICC (Berlex)*

Samplers: (Signature)

Alan L. Kyle

Survey No.:

Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	Grab	
3747	<i>DRYER</i> <i>Traverse</i>	<i>July</i>	<i>11:00 AM</i>		<i>X</i>	<i>1</i>
3748	<i>Lee Pt #1</i> <i>Traverse</i>	<i>July</i>	<i>"</i>		<i>X</i>	<i>1</i>
3749	<i>" #2</i> <i>"</i>	<i>July</i>	<i>"</i>		<i>X</i>	<i>1</i>
3750	<i>" #3</i> <i>"</i>	<i>July</i>	<i>"</i>		<i>X</i>	<i>1</i>
3751	<i>" #4</i> <i>"</i>	<i>July</i>	<i>"</i>		<i>X</i>	<i>1</i>
3752	<i>DRYER</i> <i>Traverse</i>	<i>July</i>	<i>"</i>		<i>X</i>	<i>1</i>

Relinquished by: (Sign.)

Alan L. Kyle

Received by: (Sign.)

Harold Brennan

Date/Time

7/11/85 8:20

Relinquished by: (Sign.)

Received by: (Sign.)

Date/Time

Relinquished by: (Sign.)

Received by: (Sign.)

Date/Time

Relinquished by: (Sign.)

 Rec'd by Laboratory
for field analysis
(Sign.)

Date/Time

Dispatched by: (Sign.)

Date/Time

 Rec'd for Laboratory
by:

Date/Time

Method of Shipment:

Alan L. Kyle Company Van

301375



CHAIN OF CUSTODY RECORD

Installation: *TCC Buley*

Samplers: (Signature)

Survey No.:

Alan J. Kelly
John D.

Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	Grab	
44629	Dryer (Toluene)	~~17 July~~	10:AM		X	2
44630	LAB Pit Sample 1 (Peridine)	"	"		X	1
44631	" " " 2 (Peridine)	"	"		X	1
	Primary Pollutants + 40	"	"		X	6
	Process Pit Water					
	SAMPLES LOST BY AIR FREIGHT NOT FOUND UNTIL AFTER SAMPLES H2O EXPIRED. RESAMPLED 19/JULY/85					
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
<i>John D. Hartman</i>		<i>D. L. Hettlinger</i>		7/25/85 5:00		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Rec'd by Laboratory for field analysis (Sign.)		Date/Time		
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by:		Date/Time	
Method of Shipment: <i>Express Air Freight</i>						

301376


Enviro Sciences Inc.

CHAIN OF CUSTODY RECORD

18 COPELAND RD., DENVER, NEW JERSEY 07034

 Installation: *ICC Facility*

Samplers: (Signature)

Alan J. Kefauver

Survey No.:

Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	Grab	
5364	<i>Dryer (Towere)</i>	<i>7 August</i>	<i>10:00 am</i>		<i>X</i>	<i>1</i>
5363	<i>Lab Pit (Volatile Organics)</i>	<i>"</i>	<i>2:00 pm</i>		<i>X</i>	<i>2</i>
5361	<i>Lab Pit (Pesticides)</i>	<i>"</i>	<i>2:00 pm</i>		<i>X</i>	<i>2</i>
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
<i>John D. Hartman</i>		<i>D. L. Hixson</i>		<i>8/9/85</i>		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Rec'd by Laboratory for field analysis (Sign.)		Date/Time		
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by:		Date/Time	
Method of Shipment: <i>Air Express Freight</i>						

301377



CHAIN OF CUSTODY RECORD

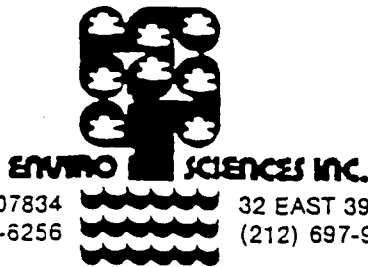
Installation: *ICC Bully*

Samplers: (Signature)

Alan L. Kyler

Survey No.:

Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	Grab	
	<i>PRIORITY POLLUTANTS + 40</i>	<i>1/25/85</i>	<i>12:00</i>		<i>X</i>	<i>6</i>
	<i>Process Pit Water</i>					
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
<i>John D. Hartung</i>		<i>D. L. Hinesinger</i>		<i>7/22 2:15</i>		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Rec'd by Laboratory for field analysis (Sign.)		Date/Time		
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by:		Date/Time	
Method of Shipment:						
<i>Air Express Freight</i>						<i>301378</i>



19 COPELAND RD., DENVILLE, NEW JERSEY 07834
(201) 366-6256

32 EAST 39 STREET, NEW YORK, NEW YORK 10016
(212) 697-9450

November 15, 1985

Mr. Carl Becnell
G. A. Becnell, Customs Brokers
150 Marine Street
Lake Charles, Louisiana 70601

Dear Mr. Becnell:

As per a telephone request from Mr. Frank Curtis of Berlex Laboratories, Inc., I am sending the enclosed laboratory analytical sheets which describe the chemical contents of hazardous wastes which originated in St. Croix, USVI. It is my understanding that U. S. Customs will not release the material for shipment to Chemical Waste Management, Inc. in Alabama until they know the contents of the shipment.

Below is a listing of data sheets and to which drums they are applicable.

<u>DATA SHEETS</u>	<u>CHEM. WASTE MANIFEST NO.</u>	<u>MATERIAL</u>	<u>NO. OF DRUMS</u>
1 and 2	ALA D 48604	Soil	24
3 - 6	ALA E 68803	Soil	15
7 - 11	ALA D 48603	Sludge	45
12 - 17	ALA D 48602	Water	94
*	ALA E 68804	Pieces of Metal Drums	14

* Pieces of washed drums which contained materials in items 1 and 2 above.

I trust that this information will suffice for release of the material. If you have any questions, contact me at 919/499-5182 or 201/366-6256.

Very truly yours,


Alan L. Kyles, PhD.
Vice President

enclosures

301379

S & W WASTE, INC.

15 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____TECHNICAL
REP. INITIALS _____

A. GENERAL INFORMATION

CRW 3-10-87

GENERATOR NAME Island Chemical Co. (P.L. Miller)GENERATOR EPA I.D. NO. V10 9P0651095ADDRESS Box 6773 CHRISTIANSTEDT, ST. JOHN, USVI 00820TECHNICAL CONTACT Arden L. Kyle (Enviro Science)TITLE VPPHONE 201/366-6256WASTE NAME Hazardous Waste Liquid NOSPROCESS GENERATING WASTE Washing of Drums

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☐ SOLID ☒ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____	ODOR <u>Mild</u> <u>oil</u> COLOR <u>Clear</u>	☐ ORGANIC ☒ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL _____ <u>None</u> % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS ☐ MULTI LAYERED ☐ BI-LAYERED ☒ SINGLE PHASED	TOC _____ COD _____ % SOLIDS <u>None</u>
PH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 7 ☐ 7.1-10 ☐ 10.1-12.5 ☐ >12.5 ☐ EXACT <u>7.44</u>	SPECIFIC GRAVITY ☐ <.8 ☐ .8-.9 ☐ .9-.95 ☐ .95-1.0 ☐ 1.0-1.1 ☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 ☐ EXACT <u>0.9319</u>	☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ 140-200 ☐ CC ☐ 100-140 ☐ OC ☐ <200 ☐ EXACT <u>95°C</u>	VISCOSITY (Centipoise) ☒ <1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT _____		

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

WATER 99.99
Petroleum Hydrocarbons 220ppm <0.0001

F. HAZARDOUS CHARACTERISTICS:

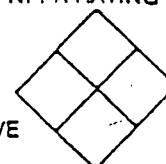
TOXICITY RATINGS

NFPA RATING

_____ INHALATION

_____ DERMAL

_____ ORAL

☐ EXPLOSIVE☐ WATER REACTIVE☐ MSDS ATTACHEDNONE☐ PYROPHORIC☐ SHOCK SENSITIVE

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Hazardous Waste Liquid NOSDOT HAZARD CLASS ORM-EUN/NA NO. NA 9189EPA/STATE WASTE TYPE DC01EPA/STATE HAZARD CODE 201 T

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____SHIPPING FREQUENCY: QUANTITY 1 PER once

I. SPECIAL HANDLING INFORMATION/COMMENTS:

None

D. METALS ☐ TOTAL

Ag NA
As NA
Ba NA
Cd NA
Cr NA
Cu NA
OTHER NA

☐ EP TOX

Hg NA
Ni NA
Pb NA
Se NA
Zn NA
Te NA

E. OTHER COMPONENTS

☐ PCB'S* NA
☐ PESTICIDES/HERBICIDES* NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS* NA
☐ OTHER NA

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE

3-10-87

DATE

TITLE

GENERATOR'S SIGNATURE

301380

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3 (s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO., INC.

DATED: 3-31-87

BY: Robert Chahon

Secretary

WITNESS: Alan J. Kephart

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-31-87

BY: Robert Chahon

WITNESS: Alan J. Kephart

TABLE 1.4
30870-0705
ENVIROSCIENCES

Sample Identification: ALAB 64870

<u>PCB Isomer</u>	<u>Result. ug/L</u>
PCB 1016	<0.20
PCB 1221	<0.20
PCB 1232	<0.20
PCB 1242	<0.20
PCB 1248	<0.20
PCB 1254	<0.20
PCB 1260	<0.20

301382



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/
Wastewater Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52956

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #3

SAMPLE DATE: February 28, 1986 SAMPLED BY: A. Kyles AT LAB DATE: March 7, 1986

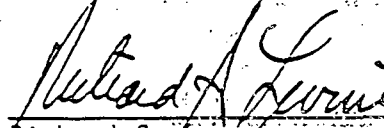
LABORATORY ANALYSIS
REPORT

<u>Parameter</u>	<u>Result</u>
**Petroleum Hydrocarbon -----	<u>220</u> mg/l(ppm)

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
LT=less than

**This test employs analytical methodology which can give false positive readings. Simply stated, this test is measuring the Carbon-Hydrogen linkage in organic molecules. While Petroleum Hydrocarbons most certainly possess this link, a number of organic molecules (Humus, Lignin etc.) not considered petroleum based, also possess it as well. Therefore in order to more correctly confirm a high reading, it is suggested that a GC run be additionally performed.

The above Total Petroleum Hydrocarbon concentration may not represent true petroleum hydrocarbon value as indicated by an interference at 1745 cm⁻¹.

301383

ALAE64570



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52956

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #3

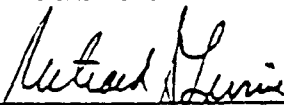
SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	GT 95°C boiled @ 95°C
Specific Gravity -----	<u>0.9319</u>
pH(units) -----	<u>7.44</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
GT=Greater Than

301384

ALAE 6/870

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

A. GENERAL INFORMATION

GENERATOR NAME ISCARD Chemical Co (CRU) 3-10-87 GENERATOR EPA I.D. NO. V12 9865-1095
ADDRESS Box 673, CHRISTIANSTED, St. John USVI 00820
TECHNICAL CONTACT Norm L. Kyles (Enviro Science) TITLE VP PHONE 202/366-6252
WASTE NAME Hydraulic Waste Liquid (NOT)
PROCESS GENERATING WASTE NOTE

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☐ SOLID ☒ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____	ODOR <u>MILD OILY</u> COLOR <u>Reddish Tan</u>	☒ ORGANIC ☐ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL <u>(UNKNOWN)</u> % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS ☐ MULTI LAYERED ☒ BI-LAYERED ☐ SINGLE PHASED	TOC _____ COD _____ % SOLIDS <u>NOTE</u>
pH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 6.1-7 ☐ 7.1-10 ☐ 10.1-12.5 ☐ >12.5 ☐ EXACT <u>6.81</u>		SPECIFIC GRAVITY ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-1.0 ☐ 1.0-1.1 ☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 ☐ EXACT <u>1.06</u>		FLASH ☐ <90 ☐ 90-100 ☐ 100-140 ☐ 140-200 ☐ >200 ☐ EXACT <u>57.10</u> POINT (°F) ☐ <100 ☐ 100-140 ☐ 140-200 ☐ >200 ☐ EXACT _____ CC ☐ <100 ☐ 100-140 ☐ 140-200 ☐ >200 ☐ EXACT _____ OC ☐ <100 ☐ 100-140 ☐ 140-200 ☐ >200 ☐ EXACT _____	
VISCOSITY (Centipoise) ☒ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10000 ☐ EXACT _____					

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

Hydraulic Oil 17.6
Water 82.4

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS

INHALATION NA

DERMAL _____

ORAL _____

☐ EXPLOSIVE

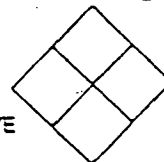
☐ WATER REACTIVE

☐ MSDS ATTACHED

☐ PYROPHORIC

☐ SHOCK SENSITIVE

NFPA RATING



G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME HYDRAULIC WASTE LIQUID
NOT

DOT HAZARD CLASS CRM-E

UN/NA NO. NA-9189

EPA/STATE WASTE TYPE 0001

EPA/STATE HAZARD CODE DESH T, I

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____

SHIPPING FREQUENCY: QUANTITY 1 PER DRUM

I. SPECIAL HANDLING INFORMATION/COMMENTS:

NOTE

D. METALS

☐ TOTAL

☐ EP TOX

Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

E. OTHER COMPONENTS

☐ PCB'S* NA
☐ PESTICIDES/HERBICIDES* NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS* NA
☐ OTHER NA

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

TITLE

GENERATOR'S SIGNATURE

301385

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3 (s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO., INC.

DATED: 3-31-87

BY: Robert Chalm

Secretary
WITNESS: Alvin Z. Kaplan

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-31-87

ISLAND CHEMICAL CO., INC.
BY: Robert Chalm

WITNESS: Alvin Z. Kaplan

TABLE 1.3
30870-0705
ENVIROSCIENCES

Sample Identification: ALAE 64869

<u>PCB Isomer</u>	<u>Result, mg/Kg</u>
PCB 1016	<3.0
PCB 1221	<3.0
PCB 1232	<3.0
PCB 1242	<3.0
PCB 1248	<3.0
PCB 1254	<3.0
PCB 1260	<3.0

301387



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

August 13, 1986

Mr. Al Kyles
ENVIRO SCIENCES INC.
610 West Main Street
Rockaway, NJ 07866

RE: Island Chemical Project - Flashpoints

Dear Mr. Kyles:

Upon your request three samples from Island Chemical(Sample data: 2/28/86) have been reanalyzed for Flashpoint using a Pensky-Martens Closed Tester. Sample #5 (Lab# 52958) and Sample #7(Lab# 52960) were composited and analyzed on August 7, 1986. The composite boiled at 98°C. The original results reported(Report data: March 7, 1986) were Sample #5 - 40°C duplicate 41°C and Sample # 7 - 45°C. Sample #5 and #7 were originally analyzed separately. There was insufficient sample remaining to reanalyze sample #5 and #7 individually.

Sample #4(lab# 52957) was also reanalyzed on August 7, 1986. The original Flashpoint reported for this sample was 50°C. The reanalysis resulted in a flashpoint of 54°C.

We do not feel that the results of these reanalyses are as reliable as possible since the samples have been held for over five months from the date of collection. As stated in the method erroneously high flashpoints may be obtained due to loss of volatile material. These samples were not stored in volatile organic bottles and therefore volatiles may have been lost. We are also unsure as to the correctness of compositing hazardous waste for analysis. Enclosed please find a page from the NJDEP Field Procedures Manual, November 1985, cautioning against this practice. I have also enclosed a copy of the procedure for determining flashpoint by Pensky-Martens Closed Tester.

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

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.

Susan Richardson

Susan Richardson
Quality Assurance Coordinator

SR:dls
enclosures

301388

ALAE64867

STATE CERTIFIED DRINKING WATER/WASTEWATER LABORATORY I.D. #14116



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52957

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #4

SAMPLE DATE: February 28, 1986 SAMPLED BY: A. Kyles AT LAB DATE: March 7, 1986

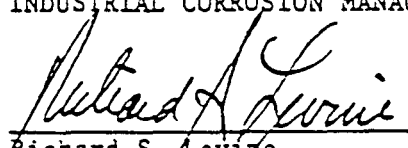
LABORATORY ANALYSIS
REPORT

<u>Parameter</u>	<u>Result</u>
**Petroleum Hydrocarbon -----	<u>176.000</u> mg/l(ppm)

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
LT=less than

**This test employs analytical methodology which can give false positive readings. Simply stated, this test is measuring the Carbon-Hydrogen linkage in organic molecules. While Petroleum Hydrocarbons most certainly possess this link, a number of organic molecules (Humus, Lignin etc.) not considered petroleum based, also possess it as well. Therefore in order to more correctly confirm a high reading, it is suggested that a GC run be additionally performed.

The above Total Petroleum Hydrocarbon concentration may not represent true petroleum hydrocarbon value as indicated by an interference at 1745 cm⁻¹.

301389

ALNE64F67



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52957

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #4

SAMPLE DATE: February 28, 1986 TAKEN BY: A. kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	<u>50°C</u>
Specific Gravity -----	<u>1.0565</u>
pH(units) -----	<u>6.81</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301390

JCN 664869

S & W WASTE, INC.

15 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

GENERAL INFORMATION

GENERATOR NAME Island Chemical Co (EPA ID 911049) GENERATOR EPA I.D. NO. VIC 980651095
ADDRESS Box 6773 CHRISTIANSD, St. Crispin, USVI 00820
TECHNICAL CONTACT Allen L. Kuch (Enviro Services) TITLE VP PHONE 201/366-6256
WASTE NAME Hydrocarbon Waste Liquid 1102
PROCESS GENERATING WASTE NONE

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☐ SOLID ☒ LIQUID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID ☐ H2O	ODOR <u>MILD OILY</u> COLOR <u>Clear/Brownish</u>	☒ ORGANIC ☐ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL <u>(UNKNOWN)</u> % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS ☐ MULTI LAYERED ☐ BI-LAYERED ☒ SINGLE PHASED	TCC _____ COD _____ % SOLIDS <u>NONE</u>
PH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 7 ☐ 7.1-10 ☐ 10.1-12.5 ☐ >12.5 ☐ EXACT <u>4.7</u> ☐ N/A	SPECIFIC GRAVITY ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-1.0 ☐ 1.0-1.1 ☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 ☐ EXACT <u>1.05</u>	☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☐ <200 ☐ EXACT <u>98°C</u>	VISCOSITY (Centipoise) ☒ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT		

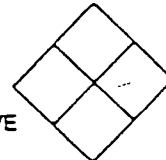
C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

Water 99.99
Petroleum Hydrocarbon 0.0001

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS
____ INHALATION
____ DERMAL
____ ORAL
☐ EXPLOSIVE
☐ WATER REACTIVE
☐ MSDS ATTACHED

NFPA RATING



G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Hydrocarbon Waste Liquid 1102
DOT HAZARD CLASS ORM-E
UN/NA NO. NA 9189
EPA/STATE WASTE TYPE 2001
EPA/STATE HAZARD CODE 2001 1

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____
SHIPPING FREQUENCY: QUANTITY 43 PER month

I. SPECIAL HANDLING INFORMATION/COMMENTS:

NONE

D. METALS

METALS	TOTAL	EP TOX
Ag	<u>NA</u>	<u>NA</u>
As	<u>NA</u>	<u>NA</u>
Ba	<u>NA</u>	<u>NA</u>
Cd	<u>NA</u>	<u>NA</u>
Cr	<u>NA</u>	<u>NA</u>
Cu	<u>NA</u>	<u>NA</u>
OTHER	<u>NA</u>	<u>NA</u>

E. OTHER COMPONENTS

☐ PCB'S*	<u>NA</u>
☐ PESTICIDES/HERBICIDES*	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS*	<u>NA</u>
OTHER	<u>NA</u>

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87

DATE

TITLE

GENERATOR'S SIGNATURE

301391

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3 (s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO., INC.

DATED: 3-31-87

BY: Robert A. Chalmers

Secretary
WITNESS: Alan Z. Kessler

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-31-87

ISLAND CHEMICAL CO., INC.
BY: Robert A. Chalmers

WITNESS: Alan Z. Kessler

TABLE 1.0
30870-0705
ENVIROSCIENCES

Sample Identification: MARE 64980

<u>PCB Isomer</u>	<u>Result, ug/L</u>
PCB 1016	<0.20
PCB 1221	<0.20
PCB 1232	<0.20
PCB 1242	<0.20
PCB 1248	<0.20
PCB 1254	<0.20
PCB 1260	<0.20

301393



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07863 201-584-0330

August 13, 1986

Mr. Al Kyles
ENVIRO SCIENCES INC.
610 West Main Street
Rockaway, NJ 07866

RE: Island Chemical Project - Flashpoints

Dear Mr. Kyles:

Upon your request three samples from Island Chemical(Sample date: 2/28/86) have been reanalyzed for Flashpoint using a Pensky-Martens Closed Tester. Sample #5 (Lab# 52958) and Sample #7(Lab# 52960) were composited and analyzed on August 7, 1986. The composite boiled at 98°C. The original results reported(Report date: March 7, 1986) were Sample #5 - 40°C duplicate 41°C and Sample # 7 - 45°C. Sample #5 and #7 were originally analyzed separately. There was insufficient sample remaining to reanalyze sample #5 and #7 individually.

Sample #4(lab# 52957) was also reanalyzed on August 7, 1986. The original Flashpoint reported for this sample was 50°C. The reanalysis resulted in a flashpoint of 54°C.

We do not feel that the results of these reanalyses are as reliable as possible since the samples have been held for over five months from the date of collection. As stated in the method erroneously high flashpoints may be obtained due to loss of volatile material. These samples were not stored in volatile organic bottles and therefore volatiles may have been lost. We are also unsure as to the correctness of compositing hazardous waste for analysis. Enclosed please find a page from the NJDEP Field Procedures Manual, November 1985, cautioning against this practice. I have also enclosed a copy of the procedure for determining flashpoint by Pensky-Martens Closed Tester.

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

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.

Susan Richardson
Susan Richardson
Quality Assurance Coordinator

SR:dls
enclosures,

301394



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-9330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52960

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #7

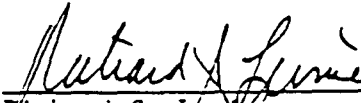
SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	<u>45°C</u>
Specific Gravity -----	<u>1.0836</u>
pH(units) -----	<u>5.05</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301395

MAR 26 1986



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB# 52958

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #5

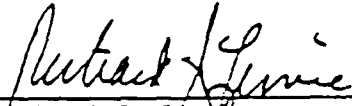
SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	<u>40°C</u> <u>41°C(dup)</u>
Specific Gravity -----	<u>1.0206</u>
pH(units) -----	<u>4.51</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301396

MASS 64980



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07863 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52958

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #5

SAMPLE DATE: February 28, 1986 SAMPLED BY: A. Kyles AT LAB DATE: March 7, 1986

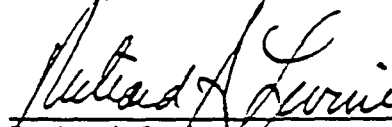
LABORATORY ANALYSIS
REPORT

<u>Parameter</u>	<u>Result</u>
**Petroleum Hydrocarbon -----	<u>LT 5</u> mg/l(ppm)

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
LT=less than

**This test employs analytical methodology which can give false positive readings. Simply stated, this test is measuring the Carbon-Hydrogen linkage in organic molecules. While Petroleum Hydrocarbons most certainly possess this link, a number of organic molecules (Humus, Lignin etc.) not considered petroleum based, also possess it as well. Therefore in order to more correctly confirm a high reading, it is suggested that a GC run be additionally performed.

The above Total Petroleum Hydrocarbon concentration may not represent true petroleum hydrocarbon value as indicated by an interference at 1745 cm⁻¹.

301397



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52960

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #7

SAMPLE DATE: February 28, 1986 SAMPLED BY: A. Kvles AT LAB DATE: March 7, 1986

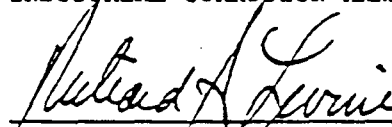
LABORATORY ANALYSIS
REPORT

<u>Parameter</u>	<u>Result</u>
**Petroleum Hydrocarbon -----	<u>100</u> mg/l(ppm)

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
LT=less than

**This test employs analytical methodology which can give false positive readings. Simply stated, this test is measuring the Carbon-Hydrogen linkage in organic molecules. While Petroleum Hydrocarbons most certainly possess this link, a number of organic molecules (Humus, Lignin etc.) not considered petroleum based, also possess it as well. Therefore, in order to more correctly confirm a high reading, it is suggested that a GC run be additionally performed.

The above Total Petroleum Hydrocarbon concentration may not represent true petroleum hydrocarbon value as indicated by an interference at 1745 cm^{-1} .

301398

MANE69980



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52956

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #3

SAMPLE DATE: February 28, 1986 SAMPLED BY: A. Kyles AT LAB DATE: March 7, 1986

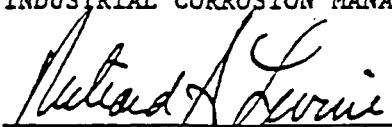
LABORATORY ANALYSIS
REPORT

<u>Parameter</u>	<u>Result</u>
**Petroleum Hydrocarbon -----	<u>220</u> mg/l(ppm)

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
LT=less than

**This test employs analytical methodology which can give false positive readings. Simply stated, this test is measuring the Carbon-Hydrogen linkage in organic molecules. While Petroleum Hydrocarbons most certainly possess this link, a number of organic molecules (Humus, Lignin etc.) not considered petroleum based, also possess it as well. Therefore in order to more correctly confirm a high reading, it is suggested that a GC run be additionally performed.

The above Total Petroleum Hydrocarbon concentration may not represent true petroleum hydrocarbon value as indicated by an interference at 1745 cm⁻¹.

301399

ALAE64310

S & W WASTE, INC.

115 JACCBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____TECHNICAL
REP. INITIALS _____

GENERAL INFORMATION

GENERATOR NAME IRENEO CHEMICAL CO. (BROOKLYN)GENERATOR EPA I.D. NO. V1098065075ADDRESS Box 6773, CHRISTIANBURG, ST. LOUIS, MISSOURI 63020TECHNICAL CONTACT KEVIN L. KYCET (Enviro Services)TITLE VPPHONE 901/366-6257WASTE NAME WATERDOWN WHITE SOLID - N/APROCESS GENERATING WASTE SALT

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☒ SOLID ☐ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____	ODOR <u>None</u> COLOR <u>NA</u>	☐ ORGANIC ☒ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL _____ <u>NA (No Feeding)</u> % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS <u>NA</u> ☐ MULTI LAYERED ☐ BI-LAYERED ☐ SINGLE PHASED	TOC <u>NA</u> COD _____ % SOLIDS _____
PH: ☐ 0-2 ☐ 7.1-10 ☒ N/A ☐ 2.1-4 ☐ 10.1-12.5 ☐ 4.1-6.9 ☐ >12.5 ☐ 7 ☐ EXACT _____	SPECIFIC GRAVITY ☐ <8 ☐ 1.1-1.24 ☐ 8-9 ☐ 1.25-1.4 ☐ 9-9.5 ☐ 1.5-1.7 ☐ 9.5-1.0 ☒ >1.7 ☐ 1.0-1.1 ☐ EXACT _____	☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☐ <200 ☐ EXACT <u>NO DATA</u>	VISCOSITY (Centipoise) ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT <u>None</u>		

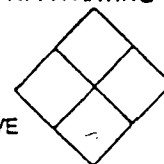
C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

<u>Metal Drum</u>	<u>60</u>
<u>Shredded C</u>	<u>40</u>
<u>Toluene (Trace)</u>	<u><0.0001</u>

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS

NFWA RATING

☐ INHALATION
☐ DERMAL
☐ ORALNONE☐ EXPLOSIVE ☐ PYROPHORIC
☐ WATER REACTIVE ☐ SHOCK SENSITIVE
☐ MSDS ATTACHED

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME WATERDOWN WHITE SOLIDDOT HAZARD CLASS ORM-EUN/NA NO. NA-9189EPA/STATE WASTE TYPE U220EPA/STATE HAZARD CODE REST

H. SHIPPING INFORMATION 17H STEEL DR

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____SHIPPING FREQUENCY: QUANTITY 10 PER CHILL

I. SPECIAL HANDLING INFORMATION/COMMENTS:

Name: CUT UP PIECE OF METAL DRUM
WATER CONTAINED TOLUENE CONTAMINATED
SOL. BUT WILL BE REFINED. PACKED
W/ SHREDDER C, CLEAN WATER (C)

D. METALS ☐ TOTAL

Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

E. OTHER COMPONENTS

☐ PCB'S*	<u>NA</u>
☐ PESTICIDES/HERBICIDES*	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS*	<u>NA</u>
☐ OTHER	<u>NA</u>

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

DATE 3-10-87TITLE Pres. SchenckGENERATOR'S SIGNATURE C.R. Willis

301400

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3 (s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

~~R. CHALON~~ ^{SA} / ISLAND CHEMICAL CO. INC. hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

BY: R. Chalmon Secretary

WITNESS: Alan Z. Kypke

Herbicide/Pesticide Warranty

~~R. CHALON~~ ^{SA} / ISLAND CHEMICAL CO. INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

BY: R. Chalmon Secretary

WITNESS: Alan Z. Kypke

Aluminum and Reactive Metal Warranty

~~R. CHALON~~ ^{SA} / ISLAND CHEMICAL CO. INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-11-87

BY: R. Chalmon Secretary

WITNESS: Alan Z. Kypke

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

GENERATORS WASTE MATERIAL PROFILE SHEET

GENERAL INFORMATION

GENERATOR NAME ISCARD CHEMICAL CO. (Pentacene) CRW 3/10/87

ADDRESS Box 6773, CHRISTIANSTED, ST. JOHN, USVI 00820

GENERATOR EPA I.D. NO. V10950651095

TECHNICAL CONTACT ALAN L. KYCAL (Enviro Science) TITLE VP PHONE 201-366-6236

WASTE NAME HAZARDOUS WASTE SOLID NOF

PROCESS GENERATING WASTE NONE (Used Drums)

PHYSICAL STATE @ 70°F ☒ SOLID ☐ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____		ODOR <u>Slight Acetic Acid</u> COLOR <u>NA</u>		☐ ORGANIC ☒ INORGANIC ☐ CHLORINATED ORGANIC		BTU VALUE PER GAL <u>NA</u> % CL _____ % S _____ BS&W _____ % ASH _____		LAYERS <u>NA</u> ☐ MULTI LAYERED ☐ BI-LAYERED ☐ SINGLE PHASED		TOC <u>NA</u> COD _____ % SOLIDS _____	
pH: ☐ 0-2 ☐ 7.1-10 ☒ N/A ☐ 2.1-4 ☐ 10.1-12.5 ☐ 4.1-6.9 ☐ >12.5 ☐ 7 ☐ EXACT _____			SPECIFIC GRAVITY ☐ <8 ☐ 1.1-1.24 ☐ 8-9 ☐ 1.25-1.4 ☐ 9-95 ☐ 1.5-1.7 ☐ 95-1.0 ☒ >1.7 ☐ 1.0-1.1 ☐ EXACT _____			☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☐ <200 ☐ EXACT <u>NO FLASH</u>			VISCOSITY (Centipoise) ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT <u>NA</u>		

Metal Deposits	60
Refractory C	40
Acetic Acid (Trace)	0.0001

TOXICITY RATINGS

_____ INHALATION

_____ DERMAL

_____ ORAL

☐ EXPLOSIVE

☐ WATER REACTIVE

☐ MSDS ATTACHED

NFPA RATING

NONE

☐ PYROPHORIC

☐ SHOCK SENSITIVE

PROPER DOT SHIPPING NAME Intermix White L-100S

Ag	NA	Hg	NA
As	NA	Ni	NA
Ba	NA	Pb	NA
Cd	NA	Se	NA
Cr	NA	Zn	NA
Cu	NA	Te	NA
OTHER	NA		

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____
SHIPPING FREQUENCY: QUANTITY 5 PER ONE

☐ PCB'S* NA
☐ PESTICIDES/HERBICIDES* NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS* NA
☐ OTHER NA

NOTE: CUT UP PIECES OF ACETIC ACID
DRUMS, SOME WERE TRIPLES RULLED,
OTHERS DETERIORATED; PACKED WITH
ACIDICANT C, CLEAN WATER (2)

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

Lucy Lakeland Lewis
TITLE

CR. Willis
GENERATOR'S SIGNATURE

301402

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3 (s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

~~ISLAND CHEMICAL CO INC~~
ISLAND CHEMICAL CO INC hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

BY: R. Chalmers Secretary
WITNESS: Alan J. Kyles

Herbicide/Pesticide Warranty

~~ISLAND CHEMICAL CO INC~~

~~ISLAND CHEMICAL CO INC~~
ISLAND CHEMICAL CO INC hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

BY: R. Chalmers Secretary
WITNESS: Alan J. Kyles

Aluminum and Reactive Metal Warranty

~~ISLAND CHEMICAL CO INC~~

~~ISLAND CHEMICAL CO INC~~
ISLAND CHEMICAL CO INC hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-11-87

BY: Robert Chalmers, Secretary
WITNESS: Alan J. Kyles

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

A. GENERAL INFORMATION

CP 3-10-87

GENERATOR NAME Island Chemical Co. (P.L.C.)

GENERATOR EPA I.D. NO. V10 984651075

ADDRESS Box 6773, Christiansburg, VA, USVI 00820

TECHNICAL CONTACT Ann L. Kijest (Enviro. Services)

TITLE VP

PHONE 202/366-6256

WASTE NAME Island Waste S-10 Not

PROCESS GENERATING WASTE UNKNOWN

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☒ SOLID ☐ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____		ODOR <u>Sweet (Rose)</u> COLOR <u>Pinkish Brown</u>	☒ ORGANIC ☐ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL _____ <u>UNL. LAMINATE</u> % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS <u>NA</u> ☐ MULTI LAYERED ☐ BI-LAYERED ☐ SINGLE PHASED	TOC <u>NA</u> COD _____ % SOLIDS _____
pH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 7 ☐ 7.1-10 ☐ 10.1-12.5 ☐ >12.5 ☐ EXACT <u>8.06</u> ☐ N/A		SPECIFIC GRAVITY ☐ <.8 ☐ .8-.9 ☐ .9-.95 ☐ .95-1.0 ☐ 1.0-1.1 ☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 ☐ EXACT <u>21.97</u>		☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☒ EXACT <u>2200</u>		VISCOSITY (Centipoise) ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT <u>NA</u>

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

<u>Benzophenone (Crystals)</u>	<u>50</u>
<u>Alcohol C</u>	<u>50</u>
<u>Isobutane (3900 pph)</u>	<u><0.001</u>

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS

INHALATION _____

DERMAL _____

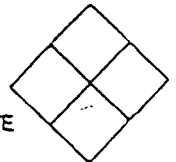
ORAL _____

☐ EXPLOSIVE

☐ WATER REACTIVE

☐ MSDS ATTACHED

NFPA RATING



G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME ISOBUTANE LIQ. SOL. N

DOT HAZARD CLASS ORM-E

UN/NA NO. NA 9197

EPA/STATE WASTE TYPE U220

EPA/STATE HAZARD CODE 7

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____

SHIPPING FREQUENCY: QUANTITY 1 PER ONE

I. SPECIAL HANDLING INFORMATION/COMMENTS:

Material packed in polyethylene bag
in drum with Alcohol C

D. METALS

☐ TOTAL

☐ EP TOX

Ag	<u>NA</u>
As	<u>NA</u>
Ba	<u>NA</u>
Cd	<u>NA</u>
Cr	<u>NA</u>
Cu	<u>NA</u>
OTHER	<u>NA</u>

Hg	<u>NA</u>
Ni	<u>NA</u>
Pb	<u>NA</u>
Se	<u>NA</u>
Zn	<u>NA</u>
Te	<u>NA</u>

E. OTHER COMPONENTS

☐ PCB'S*	<u>NA</u>
☐ PESTICIDES/HERBICIDES*	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS*	<u>NA</u>
☐ OTHER	<u>NA</u>

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87

DATE

TITLE

Pres. Island Chem. Co.

GENERATOR'S SIGNATURE

C.R. Willis, Jr.

301404

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

~~ISLAND CHEMICAL CO INC~~ ^{ISLAND CHEMICAL CO INC} hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

ISLAND CHEMICAL CO INC.
BY: Robert Chalm, Secretary

WITNESS: Alan J. Kyles

Herbicide/Pesticide Warranty

~~ISLAND CHEMICAL CO INC~~ ^{ISLAND CHEMICAL CO INC} hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

ISLAND CHEMICAL CO
BY: Robert Chalm, Secretary

WITNESS: Alan J. Kyles

Aluminum and Reactive Metal Warranty

~~ISLAND CHEMICAL CO INC~~ ^{ISLAND CHEMICAL CO INC} hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-11-87

ISLAND CHEMICAL CO INC
BY: Robert Chalm, Secretary

WITNESS: Alan J. Kyles

PRIORITY POLLUTANT VOLATILE ORGANIC ANALYSIS

LABORATORY ID #14116

LAB # 52954

CLIENT: ENVIRO SCIENCES-Island Chemical Project

SAMPLE SOURCE Sample #1

GC/MS Method 624*
Tier II Deliverables

PARAMETER	RESULT	METHOD BLANK	MDL
	ug/l	ug/l	
Chloromethane -----	U	U	10
Bromomethane -----	U	U	10
Vinyl Chloride -----	U	U	10
Chloroethane -----	U	U	10
Methylene Chloride -----	U	7.5J	10
1,1-Dichloroethene -----	U	U	10
1,1-Dichloroethane -----	U	U	10
Trans-1,2-Dichloroethene -----	U	U	10
Chloroform -----	8.2B	7.8J	10
1,2-Dichloroethane -----	U	U	10
1,1,1-Trichloroethane -----	U	U	10
Carbon Tetrachloride -----	U	U	10
Bromodichloromethane -----	U	U	10
1,2-Dichloropropane -----	U	U	10
Trans-1,3-Dichloropropene -----	U	U	10
Trichloroethene -----	U	U	10
Dibromochloromethane -----	U	U	10
1,1,2-Trichloroethane -----	U	U	10
Benzene -----	U	2.0J	10
cis-1,3-Dichloropropene -----	U	U	10
2-Chloroethylvinylether -----	U	U	10
Bromoform -----	U	U	10
Tetrachloroethene -----	U	U	10
1,1,2,2-Tetrachloroethane -----	U	U	10
Toluene -----	3.900B	4.9J	10
Chlorobenzene -----	U	U	10
Ethylbenzene -----	6.7J	U	10
Total Xylenes -----	U	U	10

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 52954

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #1

SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

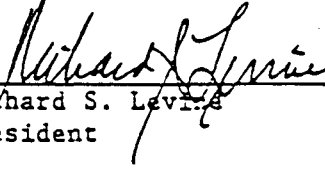
PARAMETER

RESULT

Benzophenone ----- Neat Benzophenone

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

ACCE64568

301407



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52954

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #1

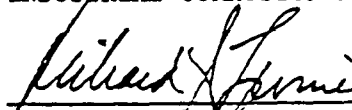
SAMPLE DATE: February-28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Ignitability -----	Ignites without persistent burning
Specific Gravity -----	<u>21.97</u>
pH(units) -----	<u>8.06</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301408

ALLEGATES.

GENERATORS WASTE MATERIAL PROFILE SHEET

TECHNICAL
REP. INITIALS

CLW 3-10-87

GENERATOR EPA I.D. NO. Y10 9F0651095

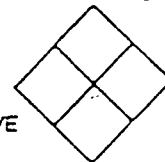
PHONE 201/366-6255

PROCESS GENERATING WASTE Washing of drums

PHYSICAL STATE @ 70°F ☐ SOLID ☒ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____			ODOR <u>MILD</u> <u>OIL</u> COLOR <u>CLEAR</u>		☐ ORGANIC ☒ INORGANIC ☐ CHLORINATED ORGANIC		BTU VALUE PER GAL _____ <u>NONE</u> % CL _____ % S _____ BS&W _____ % ASH _____		LAYERS ☐ MULTI LAYERED ☐ BI-LAYERED ☒ SINGLE PHASED		TOC _____ COD _____ % SOLIDS <u>NONE</u>	
pH: ☐ 0-2 ☐ 7.1-10 ☐ N/A ☐ 2.1-4 ☐ 10.1-12.5 ☐ 4.1-6.9 ☐ >12.5 ☐ 7 ☐ EXACT <u>7.44</u>			SPECIFIC GRAVITY ☐ <8 ☐ 1.1-1.24 ☐ 8-9 ☐ 1.25-1.4 ☐ 9-9.5 ☐ 1.5-1.7 ☐ 9.5-1.0 ☐ >1.7 ☐ 1.0-1.1 ☐ EXACT <u>0.9319</u>			☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☐ <200 ☐ EXACT <u>95°C</u>			VISCOSITY (Centipoise) ☒ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT _____			

[illegible]

☐ PYROPHORIC
☐ SHOCK SENSITIVE



EPA/STATE HAZARD CODE 24 7

Ag NA
As NA
Ba NA
Cd NA
Cr NA
Cu NA
OTHER NA

Hg NA
Ni NA
Pb C/G
Se NA
Zn NA
Te NA

☐ PCB'S* NA
☐ PESTICIDES/HERBICIDES* NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS* NA
☐ OTHER NA

*ATTACHED DISCLAIMERS MUST BE SIGNED

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____
SHIPPING FREQUENCY: QUANTITY 1 PER once

None

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

Peer Island Chem Co.

ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL

C. R. Willie
GENERATOR'S SIGNATURE

301409

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and CB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3 (s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO, INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO., INC.

DATED: 3-31-87

BY: Robert Chahara

Secretary

WITNESS: Alan Z. Kyles

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO, INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-31-87

ISLAND CHEMICAL CO., INC.
BY: Robert Chahara

WITNESS: Alan Z. Kyles

301410

TABLE 1.4
30870-0705
ENVIROSCIENCES

Sample Identification: ALAE 64870

<u>PCB Isomer</u>	<u>Result, ug/L</u>
PCB 1016	<0.20
PCB 1221	<0.20
PCB 1232	<0.20
PCB 1242	<0.20
PCB 1248	<0.20
PCB 1254	<0.20
PCB 1260	<0.20

301411

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

A. GENERAL INFORMATION

GENERATOR NAME ISCEND Chemical Co (CIV) 3-10-87 GENERATOR EPA I.D. NO. V12 9805-1095
ADDRESS Box 673, CHRISTIANSTED, St. John USVI 00820
TECHNICAL CONTACT Norm L. Kyles (Enviro Services) TITLE VP PHONE 201/366-6252
WASTE NAME Hydraulic Waste Liquid (NOL)
PROCESS GENERATING WASTE NONE

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☐ SOLID ☒ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____	ODOR <u>MILD OILY</u> COLOR <u>Reddish Tan</u>	☒ ORGANIC ☐ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL. _____ (<u>UNKNOWN</u>) % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS ☐ MULTI LAYERED ☒ BI-LAYERED ☐ SINGLE PHASED	TOC _____ COD _____ % SOLIDS <u>NONE</u>
pH: ☐ 0-2 ☐ 7.1-10 ☐ N/A ☐ 2.1-4 ☐ 10.1-12.5 ☐ 4.1-6.9 ☐ >12.5 ☐ 7 ☐ EXACT <u>6.81</u>	SPECIFIC GRAVITY ☐ <8 ☐ 8-9 ☐ 9-95 ☐ 95-1.0 ☐ 1.0-1.1	☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 ☐ EXACT <u>1.06</u>	☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☐ <200 ☐ EXACT <u>STATIC</u>	VISCOSITY (Centipoise) ☒ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT	

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

Hydraulic Oil 17.6
Water 82.4

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS

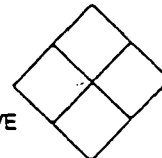
INHALATION NA

DERMAL

ORAL

☐ EXPLOSIVE
☐ WATER REACTIVE
☐ MSDS ATTACHED

NFPA RATING



☐ PYROPHORIC
☐ SHOCK SENSITIVE

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME HYDRAULIC WASTE LIQUID
NOL
DOT HAZARD CLASS ORM-E
UN/NA NO. NA-9189
EPA/STATE WASTE TYPE DDO1
EPA/STATE HAZARD CODE DEGL T, I

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____
SHIPPING FREQUENCY: QUANTITY 1 PER CONC

I. SPECIAL HANDLING INFORMATION/COMMENTS:

NONE

D. METALS

☐ TOTAL

☐ EP TOX

Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

E. OTHER COMPONENTS

☐ PCB'S* NA
☐ PESTICIDES/HERBICIDES* NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS* NA
☐ OTHER NA

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

ISCEND Chemical Co
TITLE

CR. Willis
GENERATOR'S SIGNATURE

301412

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO., INC.

DATED: 3-31-87

BY: Robert Chalmers

Secretary
WITNESS: Alvin L. Kessler

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-31-87

ISLAND CHEMICAL CO., INC.
BY: Robert Chalmers

WITNESS: Alvin L. Kessler



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52956

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #3

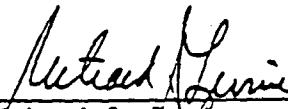
SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	GT 95°C boiled @ 95°C
Specific Gravity -----	<u>0.9319</u>
pH(units) -----	<u>7.44</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
GT=Greater Than

301414

ALAE 6870

TABLE 1.3
30870-0705
ENVIROSCIENCES

Sample Identification: ALAE 64869

<u>PCB Isomer</u>	<u>Result. mg/Kg</u>
PCB 1016	<3.0
PCB 1221	<3.0
PCB 1232	<3.0
PCB 1242	<3.0
PCB 1248	<3.0
PCB 1254	<3.0
PCB 1260	<3.0

301415



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

August 13, 1986

Mr. Al Kyles
ENVIRO SCIENCES INC.
610 West Main Street
Rockaway, NJ 07866

RE: Island Chemical Project - Flashpoints

Dear Mr. Kyles:

Upon your request three samples from Island Chemical(Sample date: 2/28/86) have been reanalyzed for Flashpoint using a Pensky-Martens Closed Tester. Sample #5 (Lab# 52958) and Sample #7(Lab# 52960) were composited and analyzed on August 7, 1986. The composite boiled at 98°C. The original results reported(Report date: March 7, 1986) were Sample #5 - 40°C duplicate 41°C and Sample # 7 - 45°C. Sample #5 and #7 were originally analyzed separately. There was insufficient sample remaining to reanalyze sample #5 and #7 individually.

Sample #4(lab# 52957) was also reanalyzed on August 7, 1986. The original Flashpoint reported for this sample was 50°C. The reanalysis resulted in a flashpoint of 54°C.

We do not feel that the results of these reanalyses are as reliable as possible since the samples have been held for over five months from the date of collection. As stated in the method erroneously high flashpoints may be obtained due to loss of volatile material. These samples were not stored in volatile organic bottles and therefore volatiles may have been lost. We are also unsure as to the correctness of compositing hazardous waste for analysis. Enclosed please find a page from the NJDEP Field Procedures Manual, November 1985, cautioning against this practice. I have also enclosed a copy of the procedure for determining flashpoint by Pensky-Martens Closed Tester.

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

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.

Susan Richardson

Susan Richardson
Quality Assurance Coordinator

SR:dls
enclosures

301416

ALAE64867



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 5295-

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #4

SAMPLE DATE: February 28, 1986 SAMPLED BY: A. Kvles AT LAB DATE: March 7, 1986

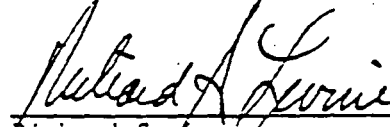
LABORATORY ANALYSIS
REPORT

<u>Parameter</u>	<u>Result</u>
**Petroleum Hydrocarbon -----	<u>176.000</u> mg/l(ppm)

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
LT=less than

**This test employs analytical methodology which can give false positive readings. Simply stated, this test is measuring the Carbon-Hydrogen linkage in organic molecules. While Petroleum Hydrocarbons most certainly possess this link, a number of organic molecules (Humus, Lignin etc.) not considered petroleum based, also possess it as well. Therefore, in order to more correctly confirm a high reading, it is suggested that a GC run be additionally performed.

____ The above Total Petroleum Hydrocarbon concentration may not represent true petrol hydrocarbon value as indicated by an interference at 1745 cm⁻¹.

301417

ALNE00862



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52957

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #4

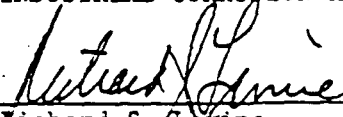
SAMPLE DATE: February 28, 1986 TAKEN BY: A. kvles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	<u>50°C</u>
Specific Gravity -----	<u>1.0565</u>
pH(units) -----	<u>6.81</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301418

PLAEG469

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

GENERAL INFORMATION

GENERATOR NAME

Island Chemical Co. (Crew 7/1/97)

GENERATOR EPA I.D. NO. VIC 980651075

ADDRESS

Box 6773 CHRISTIANSD, St. Cray, USVI 00920

TECHNICAL CONTACT

Allen L. Kuhl (Enviro Services)

TITLE

VP

PHONE

201/344-6256

WASTE NAME

Hydrous Waste Liquid 1102

PROCESS GENERATING WASTE

None

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F

☐ SOLID ☒ LIQUID

☐ SEMI-SOLID ☐ POWDER

% LIQUID _____

% H2O _____

ODOR

MILD

oily

COLOR

Clear/Brownish

☒ ORGANIC

☐ INORGANIC

☐ CHLORINATED
ORGANIC

BTU VALUE PER GAL

(UNKNOWN)

% CL _____ % S _____

BS&W _____

% ASH _____

LAYERS

☐ MULTI LAYERED

☐ BI-LAYERED

☒ SINGLE PHASED

TOC _____

COD _____

% SOLIDS None

pH:

☐ 0-2

☐ 7.1-10

☐ N/A

☐ 2.1-4

☐ 10.1-12.5

☐ 4.1-6.9

☐ >12.5

☐ 7

☐ EXACT

4.7

SPECIFIC
GRAVITY

☐ <8

☐ 8-9

☐ 9-9.5

☐ 9.5-1.0

☐ 1.0-1.1

☐ 1.1-1.24

☐ 1.25-1.4

☐ 1.5-1.7

☐ >1.7

☐ EXACT

1.05

☐ FLASH

☐ POINT

☐ (°F)

☐ CC

☐ OC

☐ EXACT

☐ <90

☐ <100

☐ 100-140

☐ 140-200

☐ <200

☐ EXACT

VISCOSITY (Centipoise)

☒ 1-100

☐ 100-1000

☐ 1000-10000

☐ >10,000

☐ EXACT

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

Water

99.99

Petroleum Hydrocarbons

0.0001

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS

☐ INHALATION

☐ DERMAL

☐ ORAL

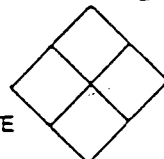
☐ EXPLOSIVE

☐ WATER REACTIVE

☐ MSDS ATTACHED

NA

NFPA RATING



G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Hydrous Waste Liquid 1102

DOT HAZARD CLASS ORM-E

UN/NA NO. NA 9189

EPA/STATE WASTE TYPE 2001

EPA/STATE HAZARD CODE 2001 1

D. METALS

☐ TOTAL

☐ EP TOX

Ag NA

As NA

Ba NA

Cd NA

Cr NA

Cu NA

OTHER NA

Hg NA

Ni NA

Pb NA

Se NA

Zn NA

Te NA

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER

SHIPPING FREQUENCY: QUANTITY 43 PER one

I. SPECIAL HANDLING INFORMATION/COMMENTS:

None

E. OTHER COMPONENTS

☐ PCB'S NA

☐ PESTICIDES/HERBICIDES NA

☐ CYANIDE OR CYANIDE PRODUCING NA

☐ SULFIDE OR SULFIDE PRODUCING NA

☐ PHENOLICS NA

☐ RADIOACTIVE NA

☐ INFECTIOUS NA

☐ ELEMENTAL METALS NA

☐ OTHER NA

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE

3-10-87

DATE

TITLE

GENERATOR'S SIGNATURE

301419

Polychlorinated Biphenyl (PCB) Warranty

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It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

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DATED: 3-31-87

BY: Robert Chalm

Secretary
WITNESS: Alan J. Kyles

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty. ISLAND CHEMICAL CO., INC.

DATED: 3-31-87

BY: Robert Chalm

Secretary
WITNESS: Alan J. Kyles

TABLE 1.0
30870-0705
ENVIROSCIENCES

Sample Identification: MARE 64980

<u>PCB Isomer</u>	<u>Result. ug/L</u>
PCB 1016	<0.20
PCB 1221	<0.20
PCB 1232	<0.20
PCB 1242	<0.20
PCB 1248	<0.20
PCB 1254	<0.20
PCB 1260	<0.20

301421



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

August 13, 1986

Mr. Al Kyles
ENVIRO SCIENCES INC.
610 West Main Street
Rockaway, NJ 07866

RE: Island Chemical Project - Flashpoints

Dear Mr. Kyles:

Upon your request three samples from Island Chemical(Sample date: 2/28/86) have been reanalyzed for Flashpoint using a Pensky-Martens Closed Tester. Sample #5 (Lab# 52958) and Sample #7(Lab# 52960) were composited and analyzed on August 7, 1986. The composite boiled at 98°C. The original results reported(Report date: March 7, 1986) were Sample #5 - 40°C duplicate 41°C and Sample # 7 - 45°C. Sample #5 and #7 were originally analyzed separately. There was insufficient sample remaining to reanalyze sample #5 and #7 individually.

Sample #4(lab# 52957) was also reanalyzed on August 7, 1986. The original Flashpoint reported for this sample was 50°C. The reanalysis resulted in a flashpoint of 54°C.

We do not feel that the results of these reanalyses are as reliable as possible since the samples have been held for over five months from the date of collection. As stated in the method erroneously high flashpoints may be obtained due to loss of volatile material. These samples were not stored in volatile organic bottles and therefore volatiles may have been lost. We are also unsure as to the correctness of compositing hazardous waste for analysis. Enclosed please find a page from the NJDEP Field Procedures Manual, November 1985, cautioning against this practice. I have also enclosed a copy of the procedure for determining flashpoint by Pensky-Martens Closed Tester.

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

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.

Susan Richardson

Susan Richardson
Quality Assurance Coordinator

SR:dls
enclosures



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 5296G

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #7

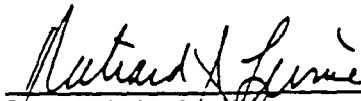
SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kvles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	<u>45°C</u>
Specific Gravity -----	<u>1.0836</u>
pH(units) -----	<u>5.05</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301423

MAR 6 1986



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB# 52958

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #5

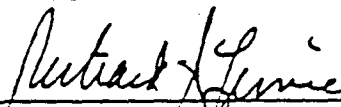
SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	<u>40°C</u> 41°C(dup)
Specific Gravity -----	<u>1.0206</u>
pH(units) -----	<u>4.51</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301424

MAR 6 1986



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52958

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #5

SAMPLE DATE: February 28, 1986 SAMPLED BY: A. Kvles AT LAB DATE: March 7, 1986

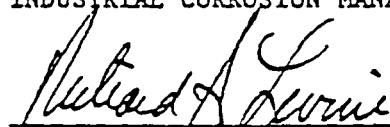
LABORATORY ANALYSIS
REPORT

<u>Parameter</u>	<u>Result</u>
**Petroleum Hydrocarbon -----	<u>LT 5</u> mg/l(ppm)

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

LT=less than

**This test employs analytical methodology which can give false positive readings. Simply stated, this test is measuring the Carbon-Hydrogen linkage in organic molecules. While Petroleum Hydrocarbons most certainly possess this link, a number of organic molecules (Humus, Lignin etc.) not considered petroleum based, also possess it as well. Therefore, in order to more correctly confirm a high reading, it is suggested that a GC run be additionally performed.

The above Total Petroleum Hydrocarbon concentration may not represent true petrol hydrocarbon value as indicated by an interference at 1745 cm⁻¹.

301425



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52960

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #7

SAMPLE DATE: February 28, 1986 SAMPLED BY: A. Kvles AT LAB DATE: March 7, 1986

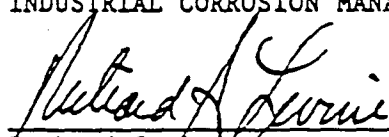
LABORATORY ANALYSIS
REPORT

<u>Parameter</u>	<u>Result</u>
**Petroleum Hydrocarbon -----	<u>100</u> mg/l(ppm)

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Sincerely,

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL: dlh
LT=less than

**This test employs analytical methodology which can give false positive readings. Simply stated, this test is measuring the Carbon-Hydrogen linkage in organic molecules. While Petroleum Hydrocarbons most certainly possess this link, a number of organic molecules (Humus, Lignin etc.) not considered petroleum based, also possess it as well. Therefore, in order to more correctly confirm a high reading, it is suggested that a GC run be additionally performed.

_____ The above Total Petroleum Hydrocarbon concentration may not represent true petroleum hydrocarbon value as indicated by an interference at 1745 cm⁻¹.

301426

MANE 64930

S & W WASTE, INC.

115 JACOBUS AVE. . SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

.. GENERAL INFORMATION

3-10-87

GENERATOR NAME ISLAND CHEMICAL CO. (P)

GENERATOR EPA I.D. NO. V109851095

ADDRESS Box 6713, CHRISTIANSTEDT, St. Croix, USVI, 00820

TECHNICAL CONTACT ARM L. KIRK (Enviro Science)

TITLE VP

PHONE 201/366-6256

WASTE NAME Hexachlorocyclopentadiene solid not

PROCESS GENERATING WASTE UNKNOWN

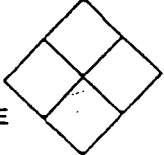
B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☒ SOLID ☐ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____	ODOR <u>MILD</u> <u>RANCID</u> COLOR <u>Black</u>	☒ ORGANIC ☐ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL <u>(UNKNOWN)</u> % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS <u>NA</u> ☐ MULTI LAYERED ☐ BI-LAYERED ☐ SINGLE PHASED	TOC <u>NA</u> COD _____ % SOLIDS _____
pH: ☐ 0-2 ☐ 7.1-10 ☐ N/A ☐ 2.1-4 ☐ 10.1-12.5 ☐ 4.1-6.9 ☐ >12.5 ☐ 7 ☐ EXACT <u>7.38</u>	SPECIFIC GRAVITY ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-1.0 ☐ 1.0-1.1	☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 ☐ EXACT <u>32.47</u>	☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ 140-200 ☐ >200 ☐ CC ☐ OC ☐ EXACT	VISCOSITY (Centipoise) ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT <u>NA</u>	

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

<u>Hexachlorocyclopentadiene</u>	<u>40</u>
<u>Abundant C</u>	<u>60</u>
<u>Residue (1,295ppb)</u>	<u><0.001</u>

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS NA NFPA RATING 

_____ INHALATION
_____ DERMAL
_____ ORAL

☐ EXPLOSIVE ☐ PYROPHORIC
☐ WATER REACTIVE ☐ SHOCK SENSITIVE
☐ MSDS ATTACHED

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Hexachlorocyclopentadiene solid not

DOT HAZARD CLASS ORM-E

UN/NA NO. NA-9189

EPA/STATE WASTE TYPE U239

EPA/STATE HAZARD CODE U239 I, T

D. METALS

☐ TOTAL	☐ EP TOX
Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____

SHIPPING FREQUENCY: QUANTITY 1 PER once

E. OTHER COMPONENTS

☐ PCB'S	<u>NA</u>
☐ PESTICIDES/HERBICIDES	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS	<u>NA</u>
☐ OTHER	<u>NA</u>

*ATTACHED DISCLAIMERS MUST BE SIGNED

I. SPECIAL HANDLING INFORMATION/COMMENTS:

Hexachlorocyclopentadiene
bag and drum filled with
Abundant C

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE

3-10-87
DATE

P. Schuchman
TITLE

C.R. Willis
GENERATOR'S SIGNATURE

301427

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO., INC.

DATED: 3-31-87

BY: Robert Chalm

Secretary

WITNESS: Alan J. Kyles

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-31-87

ISLAND CHEMICAL CO., INC.
BY: Robert Chalm

WITNESS: Alan J. Kyles

TABLE 1.2
30870-0705
ENVIROSCIENCES

Sample Identification: ALAB 64867

<u>PCB Isomer</u>	<u>Result. mg/Kg</u>
PCB 1016	<1.0
PCB 1221	<1.0
PCB 1232	<1.0
PCB 1242	<1.0
PCB 1248	<1.0
PCB 1254	<1.0
PCB 1260	<1.0

301429



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52954

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #1

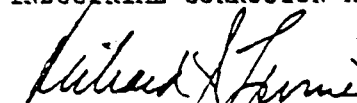
SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Ignitability -----	Ignites without persistent burning
Specific Gravity -----	<u>21.97</u>
pH(units) -----	<u>8.06</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301430

ALDEGAS



PRIORITY POLLUTANT VOLATILE ORGANIC ANALYSIS

LABORATORY ID #14116

LAB # 52955

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE Sample #2

GC/MS Method 624*
Tier II Deliverables

PARAMETER	RESULT	METHOD	MDL
	ug/kg	BLANK ug/kg	
Chloromethane -----	U	U	10
Bromomethane -----	U	U	10
Vinyl Chloride -----	U	U	10
Chloroethane -----	U	U	10
Methylene Chloride -----	7.8B	7.5J	10
1,1-Dichloroethene -----	U	U	10
1,1-Dichloroethane -----	U	U	10
Trans-1,2-Dichloroethene -----	U	U	10
Chloroform -----	6.4B	7.8J	10
1,2-Dichloroethane -----	U	U	10
1,1,1-Trichloroethane -----	U	U	10
Carbon Tetrachloride -----	U	U	10
Bromodichloromethane -----	U	U	10
1,2-Dichloropropane -----	U	U	10
Trans-1,3-Dichloropropene -----	U	U	10
Trichloroethene -----	U	U	10
Dibromochloromethane -----	U	U	10
1,1,2-Trichloroethane -----	U	U	10
Benzene -----	3.0B	2.0J	10
cis-1,3-Dichloropropene -----	U	U	10
2-Chloroethylvinylether -----	U	U	10
Bromoform -----	U	U	10
Tetrachloroethene -----	U	U	10
1,1,2,2-Tetrachloroethane -----	U	U	10
Toluene -----	U	4.9J	10
Chlorobenzene -----	U	U	10
Ethylbenzene -----	U	U	10
Total Xylenes -----	1.295	U	10

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

301431

ALAE 64567



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 52955

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #2

SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

PARAMETER

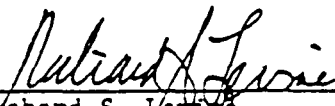
RESULT

Z Paraphenetidene ----- None Found

FINDINGS: Neat benzophenone

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52955

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #2

SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kvles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Ignitability -----	Ignites without persistent burning
Specific Gravity -----	<u>32.47</u>
pH(units) -----	<u>7.38</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301433

ALAE64867

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

A. GENERAL INFORMATION

GENERATOR NAME Ischemo Chemical Co (C.R.W. 3/10/87) GENERATOR EPA I.D. NO. VIC90657095
ADDRESS Box 6773, CHRISTIANSTEDT ST CORN USVI 00820
TECHNICAL CONTACT Adam L. Kitch (Ex-Vice President) TITLE VP PHONE 201/366-6256
WASTE NAME Hazardous Waste Liquid - NCS
PROCESS GENERATING WASTE None

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☐ SOLID ☒ LIQUID ☐ SEMI-SOLID ☐ POWDER % LIQUID _____ % H2O _____	ODOR <u>Pungent</u> COLOR <u>Brownish Red</u>	☒ ORGANIC ☐ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL _____ <u>UNKNOWN</u> % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS ☐ MULTI LAYERED ☐ BI-LAYERED ☒ SINGLE PHASED	TOC _____ COD _____ % SOLIDS <u>NONE</u>
PH: ☐ 0-2 ☐ 7.1-10 ☐ N/A ☐ 2.1-4 ☐ 10.1-12.5 ☐ 4.1-6.9 ☐ >12.5 ☐ 7 ☐ EXACT <u>6.71</u>		SPECIFIC GRAVITY ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-1.0 ☐ 1.0-1.1 ☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 EXACT <u>1.09</u>		☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ 140-200 ☐ 200-250 ☐ EXACT <u>Boiling Point 167°C</u> ☐ CC ☐ 100-1000 ☐ >10,000 ☐ EXACT _____	

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

CHLOROMETHYL Benzene 74
Benzene, METHANOLIC 26
N,N-DIMETHYL
TOLUENE CO. 10001

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS
____ INHALATION
____ DERMAL
____ ORAL
☐ EXPLOSIVE ☐ PYROPHORIC
☐ WATER REACTIVE ☐ SHOCK SENSITIVE
☐ MSDS ATTACHED

NFPA RATING

1	2	3	4

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Hazardous Waste Liquid
DOT HAZARD CLASS ORME
UN/NA NO. NA 9189
EPA/STATE WASTE TYPE U220
EPA/STATE HAZARD CODE RM 7

D. METALS

Ag	As	Ba	Cd	Cr	Cu	OTHER	Hg	Ni	Pb	Se	Zn	Te
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

E. OTHER COMPONENTS

☐ PCB'S* NA
☐ PESTICIDES/HERBICIDES* NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS* NA
☐ OTHER NA

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____
SHIPPING FREQUENCY: QUANTITY 1 PER ONE

I. SPECIAL HANDLING INFORMATION/COMMENTS:

NONE

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

TITLE

GENERATOR'S SIGNATURE

301434

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3 (s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO. INC.

DATED: 3-31-87

BY: Robert L. Chalmers

WITNESS: _____
Alan L. Kelly

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-31-87

BY: Robert L. Chalmers

WITNESS: _____
Alan L. Kelly

TABLE 1.1
30870-0705
ENVIROSCIENCES

Sample Identification: MARE 64981

<u>PCB Isomer</u>	<u>Result. ug/L</u>
PCB 1016	<0.20
PCB 1221	<0.20
PCB 1232	<0.20
PCB 1242	<0.20
PCB 1248	<0.20
PCB 1254	<0.20
PCB 1260	<0.20

301436



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52959

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #6

SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kvles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

PARAMETER

RESULT

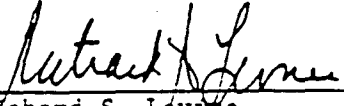
Paraphenetidene ----- Not Present

Findings:

chloromethyl benzene
benzene methanamine, n,n-dimethyl

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

MARE61951

301437



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0320

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52959

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #6

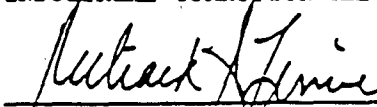
SAMPLE DATE: February 25, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	97°C boiled @ 97°C
Specific Gravity -----	<u>1.0809</u>
pH(units) -----	<u>6.71</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301438

MAR 6 1986

S & W WASTE, INC.

15 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

GENERAL INFORMATION

GENERATOR NAME Island Chemical Co (Acetic Acid) *CEW 3/10/87*

GENERATOR EPA I.D. NO. V10 990 ES1095

ADDRESS 6723 CHRISTOPHER ST. CARLE, NJ 08020

TECHNICAL CONTACT Ken L. Kitch (Enviro Services)

TITLE V.P.

PHONE 609/366-6250

WASTE NAME Acetic Acid Waste Solid NOS

PROCESS GENERATING WASTE None

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F		ODOR	☐ ORGANIC	BTU VALUE PER GAL	LAYERS	TOC
☒ SOLID	☐ LIQUID	<u>NONE</u>	☒ INORGANIC	<u>NA</u>	<u>NA</u>	<u>NA</u>
☐ SEMI-SOLID	☐ POWDER	COLOR	☐ CHLORINATED ORGANIC	% CL	☐ MULTI LAYERED	COD
☐ LIQUID		<u>NA</u>		% S	☐ BI-LAYERED	% SOLIDS
% H2O				BS&W	☐ SINGLE PHASED	
				% ASH		

pH:		SPECIFIC GRAVITY		FLASH		VISCOSITY (Centipoise)
☐ 0-2	☐ 7.1-10	☐ <8	☐ 1.1-1.24	☐ FLASH	☐ <90	☐ 1-100
☐ 2.1-4	☐ 10.1-12.5	☐ 8-9	☒ 1.25-1.4	☐ POINT	☐ <100	☐ 100-1000
☐ 4.1-6.9	☐ >12.5	☐ 9-9.5	☐ 1.5-1.7	☐ (°F)	☐ 100-140	☐ 1000-10000
☐ 7	☐ EXACT	☐ 9.5-1.0	☐ >1.7	☐ CC	☐ 140-200	☐ >10,000
		☐ 1.0-1.1	☐ EXACT	☐ OC	☐ <200	☐ EXACT
				☐ EXACT	<u>ABOVE</u>	<u>NA</u>

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

<u>Acetic Acid (Acetic Acid)</u>	<u>70</u>
<u>Acetic Acid C</u>	<u>30</u>
<u>Acetic Acid (Tercel)</u>	<u>0.004</u>

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS

INHALATION NONE

DERMAL NONE

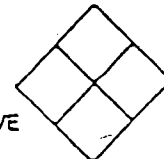
ORAL NONE

☐ EXPLOSIVE ☐ PYROPHORIC

☐ WATER REACTIVE ☐ SHOCK SENSITIVE

☐ MSDS ATTACHED

NFPA RATING



G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Acetic Acid Solid NOS

DOT HAZARD CLASS ORM-E

UN/NA NO. NA 9189

EPA/STATE WASTE TYPE 2002

EPA/STATE HAZARD CODE 2002

D. METALS

☐ TOTAL	☐ EP TOX
Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

H. SHIPPING INFORMATION

17th Feb 87

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER

SHIPPING FREQUENCY: QUANTITY 1 PER ONE

E. OTHER COMPONENTS

☐ PCB'S*	<u>NA</u>
☐ PESTICIDES/HERBICIDES*	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS*	<u>NA</u>
☐ OTHER	<u>NA</u>

*ATTACHED DISCLAIMERS MUST BE SIGNED

I. SPECIAL HANDLING INFORMATION/COMMENTS:

None: Acetic Acid Drum (Acetic Acid)

cut up, Fyler, mixed and packed

with Acetic Acid C, Clean Water, etc.

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

Ken L. Kitch
TITLE

C.R. Willis, Jr.
GENERATOR'S SIGNATURE

301439

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

ISLAND CHEMICAL CO. INC. hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalmers, Secretary
WITNESS: Alan Z. Kyle

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalmers, Secretary
WITNESS: Alan Z. Kyle

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty. ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalmers, Secretary
WITNESS: Alan Z. Kyle

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032 • (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

CODE _____

TECHNICAL
REP. INITIALS _____

A. GENERAL INFORMATION

GENERATOR NAME Island Chemical Co. (CPW 3-10-87)GENERATOR EPA I.D. NO. V10 98065109ADDRESS Box 6773, CHRISTIANSTED, ST. CROIX, USVI 00820TECHNICAL CONTACT ROSE L. RYAN (Enviro Sciences) TITLE V.P.PHONE 201/366-6256WASTE NAME HERCULEX White LiquidPROCESS GENERATING WASTE All Materials Original Bottle Lab. Reagents

B. PHYSICAL CHARACTERISTICS OF WASTE

See Attached Drum List

PHYSICAL STATE @ 70°F

☐ SOLID ☐ LIQUID☐ SEMI-SOLID ☐ POWDER

% LIQUID _____

% H2O _____

ODOR _____

COLOR _____

☐ ORGANIC☐ INORGANIC☐ CHLORINATED
ORGANIC

BTU VALUE PER GAL _____

% CL _____ % S _____

BS&W _____

% ASH _____

LAYERS

☐ MULTI LAYERED☐ BI-LAYERED☐ SINGLE PHASED

TOC _____

COD _____

% SOLIDS _____

pH: ☐ 0-2 ☐ 7.1-10 ☐ N/A☐ 2.1-4 ☐ 10.1-12.5☐ 4.1-6.9 ☐ >12.5☐ 7 ☐ EXACT _____SPECIFIC
GRAVITY☐ <8☐ 8-9☐ 9-9.5☐ 9.5-1.0☐ 1.0-1.1☐ 1.1-1.24☐ 1.25-1.4☐ 1.5-1.7☐ >1.7☐ EXACT _____☐ FLASH☐ POINT☐ (°F)☐ CC☐ OC☐ EXACT☐ <90☐ <100☐ 100-140☐ 140-200☐ <200

VISCOSITY (Centipoise)

☐ 1-100☐ 100-1000☐ 1000-10000☐ >10,000☐ EXACT

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

See Attached Drum List

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS

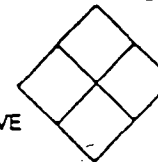
____ INHALATION

____ DERMAL

____ ORAL

☐ EXPLOSIVE☐ WATER REACTIVE☐ MSDS ATTACHEDSee Attached
Drum List

NFPA RATING



G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME HERCULEX White Liq.DOT HAZARD CLASS VAR. (See List)UN/NA NO. VAR. (See List)EPA/STATE WASTE TYPE VAR. (See List)EPA/STATE HAZARD CODE VAR. (See List)

D. METALS

☐ TOTAL☐ EP TOXAg NAAs NABa NACd NACr NACu NA

OTHER _____

Hg NANi NAPb NASe NAZn NATe NAH. SHIPPING INFORMATION 17H Sec. O.H.☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHERSHIPPING FREQUENCY: QUANTITY 29 PER DRUM

I. SPECIAL HANDLING INFORMATION/COMMENTS:

See Attached Drum List; All
Materials Packed with Absorbent C.E. OTHER COMPONENTS NA☐ PCB'S NA☐ PESTICIDES/HERBICIDES NA☐ CYANIDE OR CYANIDE PRODUCING NA☐ SULFIDE OR SULFIDE PRODUCING NA☐ PHENOLICS NA☐ RADIOACTIVE NA☐ INFECTIOUS NA☐ ELEMENTAL METALS NA☐ OTHER NA

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

TITLE

GENERATOR'S SIGNATURE

301441

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

ISLAND CHEMICAL CO. INC. hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalm, Secretary

WITNESS: Alan Z. Kyle

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalm, Secretary

WITNESS: Alan Z. Kyle

Aluminum and Reactive Metal Warranty

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ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalm, Secretary

WITNESS: Alan Z. Kyle

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

GENERAL INFORMATION

3-10-87

GENERATOR NAME IRVING CHEMICAL CO. (DELETED)

GENERATOR EPA I.D. NO. V10 98251095

ADDRESS Box 6712 Christenedel St. Crown, NJ, 07020

TECHNICAL CONTACT ALAN L. KYCE (Enviro Science)

TITLE VP

PHONE 201/344-6256

WASTE NAME IRVING WASTE SOLID NOT

PROCESS GENERATING WASTE UNKNOWN

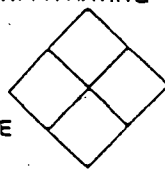
B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F ☒ SOLID ☐ LIQUID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID ☐ H2O	ODOR <u>MILD</u> <u>RANCID</u> COLOR <u>BROWN</u>	☒ ORGANIC ☐ INORGANIC ☐ CHLORINATED ORGANIC	STU VALUE PER GAL <u>(UNKNOWN)</u> % CL _____ % S _____ BS&W _____ % ASH _____	LAYERS <u>NA</u> ☐ MULTI LAYERED ☐ BI-LAYERED ☐ SINGLE PHASED	TOC <u>NA</u> COD _____ % SOLIDS _____
PH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 7 ☐ 7.1-10 ☐ 10.1-12.5 ☐ >12.5 ☐ EXACT <u>7.38</u>	SPECIFIC GRAVITY ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-1.0 ☐ 1.0-1.1 ☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 ☐ EXACT <u>32.47</u>	☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☐ >200 ☐ EXACT		VISCOSITY (Centipoise) ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT <u>NA</u>	

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

<u>Benzophenone</u>	<u>40</u>
<u>Acetone C</u>	<u>60</u>
<u>Xylene (1,2,4-trimethyl)</u>	<u><0.001</u>

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS	<u>NA</u>	NFPA RATING
INHALATION		
DERMAL		
ORAL		
☐ EXPLOSIVE	☐ PYROPHORIC	
☐ WATER REACTIVE	☐ SHOCK SENSITIVE	
☐ MSDS ATTACHED		

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME IRVING WASTE SOLID NOT

DOT HAZARD CLASS ORM-E

UN/NA NO. NA-9189

EPA/STATE WASTE TYPE U239

EPA/STATE HAZARD CODE U239 T, T

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____
SHIPPING FREQUENCY: QUANTITY 1 PER ONE

I. SPECIAL HANDLING INFORMATION/COMMENTS:

Benzophenone packed in polyethylene
bags and drums filled with
Acetone C

D. METALS

☐ TOTAL

☐ EP TOX

Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

E. OTHER COMPONENTS

☐ PCB'S*	<u>NA</u>
☐ PESTICIDES/HERBICIDES*	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS*	<u>NA</u>
☐ OTHER	<u>NA</u>

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

TITLE

GENERATOR'S SIGNATURE

301443

TABLE 1.2
30870-0705
ENVIROSCIENCES

Sample Identification: ALAE 64867

<u>PCB Isomer</u>	<u>Result, ng/Kg</u>
PCB 1016	<1.0
PCB 1221	<1.0
PCB 1232	<1.0
PCB 1242	<1.0
PCB 1248	<1.0
PCB 1254	<1.0
PCB 1260	<1.0

301444



PRIORITY POLLUTANT VOLATILE ORGANIC ANALYSIS

LABORATORY ID #14116

LAB # 52955

CLIENT: ENVIRO SCIENCES - Island Chemical ProductsSAMPLE SOURCE Sample #2GC/MS Method 624 *
Tier II Deliverables

<u>PARAMETER</u>	<u>RESULT</u>	<u>METHOD</u> <u>BLANK</u>	<u>MDL</u>
	<u>ug/kg</u>	<u>ug/kg</u>	
Chloromethane -----	U	U	10
Bromomethane -----	U	U	10
Vinyl Chloride -----	U	U	10
Chloroethane -----	U	U	10
Methylene Chloride -----	7.8B	7.5J	10
1,1-Dichloroethene -----	U	U	10
1,1-Dichloroethane -----	U	U	10
Trans-1,2-Dichloroethene -----	U	U	10
Chloroform -----	6.4B	7.8J	10
1,2-Dichloroethane -----	U	U	10
1,1,1-Trichloroethane -----	U	U	10
Carbon Tetrachloride -----	U	U	10
Bromodichloromethane -----	U	U	10
1,2-Dichloropropane -----	U	U	10
Trans-1,3-Dichloropropene -----	U	U	10
Trichloroethene -----	U	U	10
Dibromochloromethane -----	U	U	10
1,1,2-Trichloroethane -----	U	U	10
Benzene -----	3.0B	2.0J	10
cis-1,3-Dichloropropene -----	U	U	10
2-Chloroethylvinylether -----	U	U	10
Bromoform -----	U	U	10
Tetrachloroethene -----	U	U	10
1,1,2,2-Tetrachloroethane -----	U	U	10
Toluene -----	U	4.9J	10
Chlorobenzene -----	U	U	10
Ethylbenzene -----	U	U	10
Total Xylenes -----	1.295	U	10

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

301445

ALNE 64567

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO., INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO., INC.

DATED: 3-31-87

BY: Robert Chalm

Secretary

WITNESS: Alvin L. Kaylor

Aluminum and Reactive Metal Warranty

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DATED: 3-31-87

BY: Robert Chalm

WITNESS: Alvin L. Kaylor



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 52955

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-534-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #2

SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

PARAMETER

RESULT

% Paraphenetidene ----- None Found

FINDINGS: Neat benzophenone

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301447

ACA E69567



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52955

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #2

SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kvies AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Ignitability -----	Ignites without persistent burning
Specific Gravity -----	<u>32.47</u>
pH(units) -----	<u>7.38</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301448

ALAE64867

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

A. GENERAL INFORMATION

GENERATOR NAME Isamo Chemical Co (E. R. W. 3/10/97) GENERATOR EPA I.D. NO. VIC97657095
ADDRESS Box 6773, CHRISTIANES ST CORN USVI 00520
TECHNICAL CONTACT Alan L. Kitch (Service Manager) TITLE VP PHONE 501/366-6256
WASTE NAME Hydrous Waste Liquid - NGS
PROCESS GENERATING WASTE None

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F	ODOR	ORGANIC	STU VALUE PER GAL	LAYERS	TCC
☐ SOLID ☒ LIQUID	<u>Pungent</u>	☒ ORGANIC	<u>UNKNOWN</u>	☐ MULTI LAYERED	_____
☐ SEMI-SOLID ☐ POWDER	COLOR	☐ INORGANIC	% CL _____ % S _____	☐ BI-LAYERED	CCD _____
% LIQUID _____	<u>Brownish Red</u>	☐ CHLORINATED ORGANIC	BS&W _____	☒ SINGLE PHASED	% SOLIDS <u>NONE</u>
% H2O _____			% ASH _____		

PH: ☐ 0-2 ☐ 7.1-10 ☐ N/A	SPECIFIC GRAVITY ☐ <8 ☐ 1.1-1.24	☐ FLASH ☐ <90	VISCOSITY (Centipoise):
☐ 2.1-4 ☐ 10.1-12.5	☐ 8-9 ☐ 1.25-1.4	☐ POINT ☐ <100	☒ 1-100
☐ 4.1-6.9 ☐ >12.5	☐ 9-95 ☐ 1.5-1.7	☐ (°F) ☐ 100-140	☐ 100-1000
☐ 7 ☐ EXACT <u>6.71</u>	☐ 95-1.0 ☐ >1.7	☐ CC ☐ 140-200	☐ 1000-10000
	☐ 1.0-1.1 ☐ EXACT <u>1.08</u>	☐ OC ☐ <200	☐ >10,000
		☐ EXACT <u>Boiling Point 167°C</u>	☐ EXACT _____

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

<u>CHLOROMETHYL BENZENE</u>	<u>74</u>
<u>BENZENE, METHYLENE</u>	<u>26</u>
<u>DLIN-DIMETHYL</u>	
<u>TOLUENE</u>	<u>CO.0001</u>
_____	_____
_____	_____
_____	_____

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS
_____ INHALATION
_____ DERMAL
_____ ORAL
☐ EXPLOSIVE ☐ PYROPHORIC
☐ WATER REACTIVE ☐ SHOCK SENSITIVE
☐ MSDS ATTACHED

NFPA RATING

1	2	3	4

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Hydrous Waste Liquid - NGS
DOT HAZARD CLASS ORME
UN/NA NO. NA 9149
EPA/STATE WASTE TYPE U220
EPA/STATE HAZARD CODE U220 1

D. METALS

_____	TOTAL	EP TOX
Ag	<u>NA</u>	Hg
As	<u>NA</u>	Ni
Ba	<u>NA</u>	Pb
Cd	<u>NA</u>	Se
Cr	<u>NA</u>	Zn
Cu	<u>NA</u>	Te
OTHER	<u>NA</u>	

E. OTHER COMPONENTS

☐ PCB'S*	<u>NA</u>
☐ PESTICIDES/HERBICIDES*	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS*	<u>NA</u>
☐ OTHER	<u>NA</u>

*ATTACHED DISCLAIMERS MUST BE SIGNED

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER _____
SHIPPING FREQUENCY: QUANTITY 1 PER CRU

I. SPECIAL HANDLING INFORMATION/COMMENTS:

NOTE

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

Pres. Island Chem. Co.
TITLE

C.R. Willis Jr.
GENERATOR'S SIGNATURE

301449

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and CB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

_____ hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: _____

BY: _____

WITNESS: _____

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty. ISLAND CHEMICAL CO. INC.

DATED: 3-31-87

BY: Robert A. Chalmers

Secretary

WITNESS: Alan L. Kypur

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-31-87

BY: Robert A. Chalmers

WITNESS: Alan L. Kypur



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52959

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #6

SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

PARAMETER

RESULT

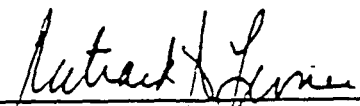
Paraphenacidene ----- Not Present

Findings:

chloromethyl benzene
benzene methanamine, n,n-dimethyl

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

INDUSTRIAL CORROSION MANAGEMENT, INC.



Richard S. Levine
President

RSL:dlh

301451

MAKREC1951

TABLE 1.1
30870-0705
ENVIROSCIENCES

Sample Identification: MARE 64981

<u>PCB Isomer</u>	<u>Result, ug/L</u>
PCB 1016	<0.20
PCB 1221	<0.20
PCB 1232	<0.20
PCB 1242	<0.20
PCB 1248	<0.20
PCB 1254	<0.20
PCB 1260	<0.20

301452



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52959

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #6

SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Flashpoint -----	97°C boiled @ 97°C
Specific Gravity -----	<u>1.0809</u>
pH(units) -----	<u>6.71</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
President

RSL:dlh

301453

INPRE 62781

S & W WASTE, INC.

5 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

CODE

TECHNICAL
REP. INITIALS

GENERAL INFORMATION

GENERATOR NAME Island Chemical Co (C.F.W. 3/10/87) GENERATOR EPA I.D. NO. V10 980 651075
 ADDRESS 6773, CHRISTOPHER ST. CENK, USVI 00820
 TECHNICAL CONTACT RON L. KURT (CIVIC SCIENCE) TITLE V.P. PHONE 901/366-6200
 SITE NAME HEAVY WASTE LID NO.
 PROCESS GENERATING WASTE NONE

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F		ODOR	☐ ORGANIC	BTU VALUE PER GAL	LAYERS	TOC
☐ SOLID	☐ LIQUID	<u>NONE</u>	☒ INORGANIC	<u>NA</u>	<u>NA</u>	<u>NA</u>
☐ SEMI-SOLID	☐ POWDER	COLOR	☐ CHLORINATED ORGANIC	% CL	☐ MULTI LAYERED	COD
☐ LIQUID		<u>NA</u>		% S	☐ BI-LAYERED	% SOLIDS
H2O				BS&W	☐ SINGLE PHASED	
				% ASH		

PH:	☐ 0-2	☐ 7.1-10	☒ N/A	SPECIFIC GRAVITY	☐ <8	☐ 1.1-1.24	☐ FLASH	☐ <90	VISCOSITY (Centipoise)
	☐ 2.1-4	☐ 10.1-12.5			☐ 8-9	☒ 1.25-1.4	☐ POINT	☐ <100	☐ 1-100
	☐ 4.1-6.9	☐ >12.5			☐ 9-95	☐ 1.5-1.7	☐ (°F)	☐ 100-140	☐ 100-1000
	☐ 7	☐ EXACT			☐ 95-1.0	☐ >1.7	☐ CC	☐ 140-200	☐ 1000-10000
					☐ 1.0-1.1	☐ EXACT	☐ OC	☐ S200	☐ >10,000
							☐ EXACT	<u>NONE</u>	<u>NA</u>

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

Acetic Acid Liners (Acetic Acid) 70
Acetic Acid C 30
Acetic Acid (Trace) 0.001

F. HAZARDOUS CHARACTERISTICS:

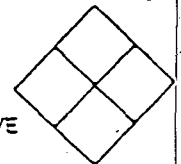
TOXICITY RATINGS

INHALATION
 DERMAL
 ORAL

☐ EXPLOSIVE
☐ WATER REACTIVE
☐ MSDS ATTACHED

☐ PYROPHORIC
☐ SHOCK SENSITIVE

NFPA RATING



D. METALS

☐ TOTAL	☐ EP TOX
Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

E. OTHER COMPONENTS

☐ PCB'S* NA
☐ PESTICIDES/HERBICIDES* NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS* NA
☐ OTHER NA

*ATTACHED DISCLAIMERS MUST BE SIGNED

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Heavy Waste LID NO.DOT HAZARD CLASS ORII-EUN/NA NO. NA 9189EPA/STATE WASTE TYPE DOOREPA/STATE HAZARD CODE B-T

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER
 SHIPPING FREQUENCY: QUANTITY 1 PER CHC

I. SPECIAL HANDLING INFORMATION/COMMENTS:

Note: Acetic Acid Drum Liners
at up, fup, and and packed
with Acetic Acid, Chemicals, etc.

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE

3-10-87
 DATE

TITLE

GENERATOR'S SIGNATURE

301454

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

ISLAND CHEMICAL CO. INC. hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalmers, Secretary

WITNESS: Alan Z. Kyle

Herbicide/Pesticide Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalmers, Secretary

WITNESS: Alan Z. Kyle

Aluminum and Reactive Metal Warranty

ISLAND CHEMICAL CO. INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

ISLAND CHEMICAL CO. INC.

DATED: 3-11-87

BY: R. Chalmers, Secretary

WITNESS: Alan Z. Kyle

GENERATORS WASTE MATERIAL PROFILE SHEET

CODE _____
TECHNICAL
REP. INITIALS _____

A. GENERAL INFORMATION

GENERATOR NAME ILCRO Chemical Co. (EPA 3-10-87) GENERATOR EPA I.D. NO. VID 980651085
 ADDRESS Box 6773, CHRISTIANSTED, ST. JOHN, USVI 00820
 TECHNICAL CONTACT Ken L. Kyles (Enviro Scientist) TITLE V.P. PHONE 201/366-6256
 WASTE NAME Household Waste Liquid
 PROCESS GENERATING WASTE All Materials Original Bottle Lab. Reagents

B. PHYSICAL CHARACTERISTICS OF WASTE

SEE ATTACHED DRUM LIST

PHYSICAL STATE @ 70°F		COOR	☐ ORGANIC	BTU VALUE PER GAL	LAYERS	TCC
☐ SOLID	☐ LIQUID		☐ INORGANIC	% CL	☐ MULTI LAYERED	COD
☐ SEMI-SOLID	☐ POWDER	COLOR	☐ CHLORINATED ORGANIC	% S	☐ BI-LAYERED	% SOLIDS
% LIQUID				BS&W	☐ SINGLE PHASED	
% H2O				% ASH		

pH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 7	☐ 7.1-10 ☐ 10.1-12.5 ☐ >12.5 ☐ EXACT	SPECIFIC GRAVITY: ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-10 ☐ 10-11	☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☐ >1.7 ☐ EXACT	☐ FLASH ☐ POINT ☐ (°F) ☐ CC ☐ OC ☐ EXACT	☐ <90 ☐ <100 ☐ 100-140 ☐ 140-200 ☐ <200	VISCOSITY (Centipoise): ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☐ EXACT

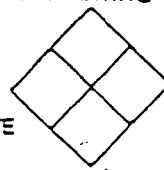
C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

SEE ATTACHED DRUM LIST

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS
 _____ INHALATION
 _____ DERMAL
 _____ ORAL
☐ EXPLOSIVE ☐ PYROPHORIC
☐ WATER REACTIVE ☐ SHOCK SENSITIVE
☐ MSDS ATTACHED

NFPA RATING



G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Household Waste Liquid
 DOT HAZARD CLASS VARIOUS (See List)
 UN/NA NO. VARIOUS (See List)
 EPA/STATE WASTE TYPE VARIOUS (See List)
 EPA/STATE HAZARD CODE VARIOUS (See List)

D. METALS

☐ TOTAL☐ EP TOX

Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER _____	

H. SHIPPING INFORMATION 17H Steel O.H.

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER
 SHIPPING FREQUENCY: QUANTITY 89 PER CHU

E. OTHER COMPONENTS

NA

☐ PCB'S* NA
☐ PESTICIDES/HERBICIDES* NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS* NA
☐ OTHER NA

*ATTACHED DISCLAIMERS MUST BE SIGNED

I. SPECIAL HANDLING INFORMATION/COMMENTS:

SEE ATTACHED DRUM LIST; ALL
 MATERIALS PACKED WITH ABSORBENT C.

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
 DATE

Resident Clerk
 TITLE

G.R. Willis Jr.
 GENERATOR'S SIGNATURE

Polychlorinated Biphenyl (PCB) Warranty

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DATED: 3-11-87

BY: R. Chalmers, Secretary
WITNESS: Alan Z. Kyle

Herbicide/Pesticide Warranty

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DATED: 3-11-87

BY: R. Chalmers, Secretary
WITNESS: Alan Z. Kyle

Aluminum and Reactive Metal Warranty

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DATED: 3-11-87

BY: R. Chalmers, Secretary
WITNESS: Alan Z. Kyle

301457

DRUM INVENTORY

Page 1 of 9

Drum Type	55-gal. 17H OPEN HEAD
Drum Number	1
Generator	Isoda Chemical Co.
Hazard Class	FLAMMABLE LIQUID

WPS #

Date 2 MAY 1956

NOTED CODE: I, T

[illegible]

301458

DRUM INVENTORY

Page 2 of 2

Drum Type 55-gal. Spill, 17H Camlock

WPS #

um Number

Data

Generator

Hazard Class

* HAZZRO CODE: I, T

[illegible]

301459

DRUM INVENTORY

Page 51 of 9

Drum Type

um Number

Generator

Hazard Class

WPS #

Data

* HZRD CODE: I, T

[illegible]

301460

Page 4 of 9

WFS # _____
Date 3 MAR 1986

* HAZARD CODE: I

301461

DRUM INVENTORY

Page 5 of 9

Drum Type

55-gal Still 17H Open Head

WPS #

um Number

(

Date

2 May 1970

Generator

Isco Chemical Co.

Hazard Class

Fennel Leaf

AD2220 CODE: H (PANDA)
I (Cyber)

[illegible]

301462

DRUM INVENTORY

Page 6 of 9

Drum Type

am Number

Generator

Hazard Class

WPS #

Date _____

HAZARD CODE: I

[illegible]

301463

DRUM INVENTORY

Page 7 of 9

Drum Type 55-Gal Steel 17 1/2" Open Head

WPS #

Jim Number

Generator

Hazard Class

ALZARD CODE: I

И, т (тошете)

[illegible]

301464

DRUM INVENTORY

Page 8 of 9

Crum Type

55-42. 17 H OPEN NEED

Jim Number

8

Generator

Isaac Cramer Co.

Hazard Class

FAMILY Liquid

WPS #

Date 2 MAR 1956

HEARD CODE I

[illegible]

301465

Page 9 of 9

WPS # _____

Date 2 MAY 1976

Generator L-5000 CRISTALL CO.

WORLD CODE: I

301466

DRUM INVENTORY

Page 1 of 9

Drum Type

55-02. 17H OPEN HEAD

Jim Number

1

Generator

Trans Pacific Co.

Hazard Class

Femmine Liquio

WPS #

Date _____

2 MAY 1956

ALZARO CODE: IT

[illegible]

301467

DRUM INVENTORY

Page 2 of 9

Crum Type

55-202. Sp. 1. 17H Osm. 1000

WFS #

um Number

2

Generator

LEUNG CHEUNG CO.

Data

2 MAY 1936

Hazard Class

Flammé Liquor

HB2280 COOE: I, T

[illegible]

301468

Page 11 of 9

55-2, 562, 178 Dec 11/20

Am Númer

Data

2 MAY 1974

Generator

Isene Chemical Co.

Harvard Class

Fleming Linn

* HAZARD CODE: I, T

301469

DRUM INVENTORY

Page 4 of 9

Crum Type

55-22. Street 1714 Ocean Drive

WFS #

Am Number

d

Cata

3 MAY 1996

Generator

Isidoro Chumbezi Co

Hazard Class

Flammula lignis

2. HAZARD CODE: I

[illegible]

301470

DRUM INVENTORY

Page 5 of 9

Drum Type 55-gal Steel 17H Open Head

WPS #

um Number

Date _____

Generator

Hazard Class

AZ2220 CODE: H (PYRIDINE)
I (Cytosine)

[illegible]

301471

DRUM INVENTORY

Page 6 of 9

Drum Type

Jim Number

Generator

Hazard Class

WFS #

Date _____

HP23RD CODE: I

[illegible]

301472

DRUM INVENTORY

Page 7 of 9

Drum Type 55-gal Steel 1711 Open Head

WFS #

Jim Number 7

Date _____

Generator 15000 Learning Co

Hazard Class FLAMMABLE LIQUID

HAZARD CODE: I

И, Т (то же).

[illegible]

301473

Page 8 of 9

WPS # _____
Date 2 MAR 1996

H222RD CODE I

301474

Page 9 of 9

WPS # _____
Date 2 MAR 1972

HEARD CODE = I

301475

S & W WASTE, INC.

15 JACCBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____TECHNICAL
REP. INITIALS _____

GENERAL INFORMATION

CRW 3-10-87

GENERATOR NAME Island Chemical Co. (Brockton)GENERATOR EPA I.D. NO. V1098065075ADDRESS Box 6773, Christened, St. Croix, USVI 00800TECHNICAL CONTACT Kevin L. Kyelet (Enviro Science)TITLE VPPHONE 201-366-6250WASTE NAME Hexachloro White Solid - NofPROCESS GENERATING WASTE SAC

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F		ODOR	☐ ORGANIC	BTU VALUE PER GAL	LAYERS <u>NA</u>	TOC <u>NA</u>
☒ SOLID	☐ LIQUID	<u>None</u>	☒ INORGANIC	<u>NA (No Test)</u>	☐ MULTI LAYERED	CCO _____
☐ SEMI-SOLID	☐ POWDER	COLOR	☐ CHLORINATED ORGANIC	% CL _____ % S _____	☐ BI-LAYERED	% SOLIDS _____
% LIQUID _____		<u>NA</u>		BS&W _____	☐ SINGLE PHASED	
% H2O _____				% ASH _____		
pH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 7		☐ 7.1-10 ☐ 10.1-12.5 ☒ N/A	SPECIFIC GRAVITY ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-1.0 ☐ 1.0-1.1	☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☒ >1.7 ☐ EXACT	☐ FLASH ☐ POINT ☐ (°F) ☐ CC ☐ OC ☐ EXACT	☐ <90 ☐ <100 ☐ 100-140 ☐ 140-200 ☐ <200 ☒ NO TEST
						VISCOSITY (Centipoise) ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000 ☒ EXACT <u>None</u>

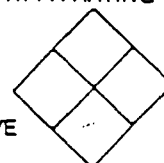
C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

<u>Metal Drums</u>	<u>60</u>
<u>Hexachloro C</u>	<u>40</u>
<u>Toluene (Trace)</u>	<u><0.0001</u>

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS

NFPA RATING

☐ INHALATION
☐ DERMAL
☐ ORALNone☐ EXPLOSIVE
☐ WATER REACTIVE
☐ MSDS ATTACHED☐ PYROPHORIC
☐ SHOCK SENSITIVE

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME Hexachloro White Solid - NofDOT HAZARD CLASS ORM-EUN/NA NO. NA-9189EPA/STATE WASTE TYPE U220EPA/STATE HAZARD CODE NA-9189

H. SHIPPING INFORMATION 17H STEEL DRUM

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHERSHIPPING FREQUENCY: QUANTITY 10 PER CHL

I. SPECIAL HANDLING INFORMATION/COMMENTS:

Note: Cut up piece of Metal Drum
which contained toluene contaminated
oil but were still rinsed. Packed
w/ Hexachloro C, Clean Water

D. METALS ☐ TOTAL

Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

E. OTHER COMPONENTS

☐ PCB'S*	<u>NA</u>
☐ PESTICIDES/HERBICIDES*	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS*	<u>NA</u>
☐ OTHER	<u>NA</u>

*ATTACHED DISCLAIMERS MUST BE SIGNED

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87

DATE

TITLE

GENERATOR'S SIGNATURE

301476

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3 (s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

~~R. Chalmon~~ ^{RM} ISLAND CHEMICAL CO. INC. hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

BY: R. Chalmon Secretary
WITNESS: Alan J. Kyles

Herbicide/Pesticide Warranty

~~R. Chalmon~~ ^{RM} ISLAND CHEMICAL CO. INC. hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

BY: R. Chalmon Secretary
WITNESS: Alan J. Kyles

Aluminum and Reactive Metal Warranty

~~R. Chalmon~~ ^{RM} ISLAND CHEMICAL CO. INC. hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-11-87

BY: R. Chalmon Secretary
WITNESS: Alan J. Kyles

S & W WASTE, INC.

15 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____TECHNICAL
REP. INITIALS _____

GENERAL INFORMATION

GENERATOR NAME ISLMO Chemical Co. (Kearny) *CRW 3/10/87* GENERATOR EPA I.D. NO. V109506-1095
ADDRESS Box 6773, CHRISTIANSTEDT ST. CRATE, USLT 00820
TECHNICAL CONTACT ALAN L. KYCE (Enviro Science) TITLE VP PHONE 201-356-6256
WASTE NAME 16220000 Waste Solid NOF
PROCESS GENERATING WASTE None (Used Drums)

B. PHYSICAL CHARACTERISTICS OF WASTE

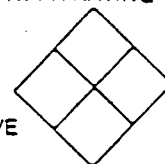
PHYSICAL STATE - 70°F ☒ SOLID ☐ LIQUID ☐ SEMI-SOLID ☐ POWDER
ODOR Slight Acetic Acid ☐ ORGANIC ☒ INORGANIC
COLOR NA ☐ CHLORINATED ORGANIC
STU VALUE PER GAL NA LAYERS NA TOC NA
% CL _____ % S _____ ☐ MULTI LAYERED
BS&W _____ ☐ BI-LAYERED COD _____
% ASH _____ ☐ SINGLE PHASED % SOLIDS _____
pH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 7 ☐ 7.1-10 ☐ 10.1-12.5 ☒ N/A
SPECIFIC GRAVITY ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-1.0 ☐ 1.0-1.1 ☐ 1.1-1.24 ☐ 1.25-1.4 ☐ 1.5-1.7 ☒ >1.7 ☐ EXACT
FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☐ <200 ☐ EXACT NO DATA
VISCOSITY (Centipoise) ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10000 ☐ EXACT NA

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

Metals Drums 60
Residual C 40
Acetic Acid (Trace) 0.0001

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS NFPA RATING
INHALATION NONE
DERMAL NONE
ORAL NONE
☐ EXPLOSIVE ☐ PYROPHORIC
☐ WATER REACTIVE ☐ SHOCK SENSITIVE
☐ MSDS ATTACHED



G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME 16220000 Waste Solid NOF
DOT HAZARD CLASS 06.1-E
UN/NA NO. NA 9189
EPA/STATE WASTE TYPE D002
EPA/STATE HAZARD CODE 1

H. SHIPPING INFORMATION

16220000
☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER
SHIPPING FREQUENCY: QUANTITY 5 PER CRW

I. SPECIAL HANDLING INFORMATION/COMMENTS:

NOTE: CUT UP PIECE OF ACETIC ACID
DRUMS. SOME WERE TRIPLE RULLED,
OTHERS DETERIORATED. PACKED WITH
RESIDUAL C, CLEAN WATER

D. METALS

☐ TOTAL ☐ EP TOX
Ag NA Hg NA
As NA Ni NA
Ba NA Pb NA
Cd NA Se NA
Cr NA Zn NA
Cu NA Te NA
OTHER NA

E. OTHER COMPONENTS

☐ PCB'S NA
☐ PESTICIDES/HERBICIDES NA
☐ CYANIDE OR CYANIDE PRODUCING NA
☐ SULFIDE OR SULFIDE PRODUCING NA
☐ PHENOLICS NA
☐ RADIOACTIVE NA
☐ INFECTIOUS NA
☐ ELEMENTAL METALS NA
OTHER NA

ATTACHED DISCLAIMERS MUST BE SIGNED

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE, AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

Alan L. Kyce
TITLE

CRW
GENERATOR'S SIGNATURE

301478

Polychlorinated Biphenyl (PCB) Warranty

This disclaimer is to all persons who generate and dispose of chemical waste. The terms PCB and PCB's are used in this disclaimer to refer to any chemical substances and combinations of substances that contain 50 ppm or greater of PCB's as defined in 40 CFR 761.3(s), including any byproduct, in a process which contains less than 50 ppm PCB because of any dilution; again, these latter shall be included as PCB and PCB's. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts.

It is unlawful for S&W Waste, Inc. to receive PCB's. Any generator and/or transporter who knowingly or willfully ships PCB's to our facility will be subject to civil penalties or criminal prosecution.

~~ISLAND CHEMICAL CO INC~~
ISLAND CHEMICAL CO INC hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

BY: R. Chalmers Secretary
WITNESS: Alan J. Kyles

Herbicide/Pesticide Warranty

~~ISLAND CHEMICAL CO INC~~
ISLAND CHEMICAL CO INC hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED: 3-11-87

BY: R. Chalmers Secretary
WITNESS: Alan J. Kyles

Aluminum and Reactive Metal Warranty

~~ISLAND CHEMICAL CO INC~~
ISLAND CHEMICAL CO INC hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED: 3-11-87

BY: Robert Chalmers Secretary
WITNESS: Alan J. Kyles

S & W WASTE, INC.

115 JACOBUS AVE. • SOUTH KEARNY, N.J. 07032. (201) 344-4004

GENERATORS WASTE MATERIAL PROFILE SHEET

APPROVAL
CODE _____

TECHNICAL
REP. INITIALS _____

GENERAL INFORMATION

CH 3-10-87

GENERATOR NAME Island Chemical Co. (EPA List)

GENERATOR EPA I.D. NO. V10 98-651095

ADDRESS Box 6773, Christiansburg, St. Crux, USVI 00820

TECHNICAL CONTACT Ann L. Kyles (Enviro Services)

TITLE VP

PHONE 21/266-6156

WASTE NAME 1 kg/dm white solid NW

PROCESS GENERATING WASTE UNKNOWN

B. PHYSICAL CHARACTERISTICS OF WASTE

PHYSICAL STATE @ 70°F		ODOR	☒ ORGANIC ☐ INORGANIC ☐ CHLORINATED ORGANIC	BTU VALUE PER GAL	LAYERS	TCC	
☒ SOLID ☐ SEMI-SOLID ☐ LIQUID ☐ POWDER	☐ LIQUID ☐ POWDER	<u>Sweet (Rose)</u>		<u>UNKNOWN</u>	<u>NA</u>	<u>NA</u>	
COLOR			% CL	% S	☐ MULTI LAYERED ☐ BI-LAYERED ☐ SINGLE PHASED	COD	
<u>Pinkish Brown</u>			BS&W	% ASH		% SOLIDS	
PH: ☐ 0-2 ☐ 2.1-4 ☐ 4.1-6.9 ☐ 7		☐ 7.1-10 ☐ 10.1-12.5 ☐ >12.5	SPECIFIC GRAVITY: ☐ <8 ☐ 8-9 ☐ 9-9.5 ☐ 9.5-1.0 ☐ 1.0-1.1		☐ FLASH ☐ <90 ☐ POINT ☐ <100 ☐ (°F) ☐ 100-140 ☐ CC ☐ 140-200 ☐ OC ☒ 200		VISCOSITY (Centipoise): ☐ 1-100 ☐ 100-1000 ☐ 1000-10000 ☐ >10,000
<u>8.06</u>			<u>21.97</u>		<u>NA</u>		

C. CHEMICAL COMPOSITION (MUST TOTAL 100%) %

<u>BUTACRYLONIC (Crystals)</u>	<u>50</u>
<u>Aluminum C</u>	<u>50</u>
<u>Isobutene (2900 ppt)</u>	<u><0.001</u>

F. HAZARDOUS CHARACTERISTICS:

TOXICITY RATINGS	NFPA RATING
INHALATION	
DERMAL	
ORAL	
EXPLOSIVE	
WATER REACTIVE	PYROPHORIC
MSDS ATTACHED	SHOCK SENSITIVE

G. MANIFEST INFORMATION

PROPER DOT SHIPPING NAME HAZARDOUS WASTE SOLID

DOT HAZARD CLASS ORM-E

UN/NA NO. NA 9187

EPA/STATE WASTE TYPE U220

EPA/STATE HAZARD CODE T

D. METALS

TOTAL	EP TOX
Ag <u>NA</u>	Hg <u>NA</u>
As <u>NA</u>	Ni <u>NA</u>
Ba <u>NA</u>	Pb <u>NA</u>
Cd <u>NA</u>	Se <u>NA</u>
Cr <u>NA</u>	Zn <u>NA</u>
Cu <u>NA</u>	Te <u>NA</u>
OTHER <u>NA</u>	

E. OTHER COMPONENTS

☐ PCB'S*	<u>NA</u>
☐ PESTICIDES/HERBICIDES*	<u>NA</u>
☐ CYANIDE OR CYANIDE PRODUCING	<u>NA</u>
☐ SULFIDE OR SULFIDE PRODUCING	<u>NA</u>
☐ PHENOLICS	<u>NA</u>
☐ RADIOACTIVE	<u>NA</u>
☐ INFECTIOUS	<u>NA</u>
☐ ELEMENTAL METALS*	<u>NA</u>
OTHER	<u>NA</u>

H. SHIPPING INFORMATION

☐ BULK LIQUID ☐ BULK SOLID ☒ DRUMS ☐ OTHER

SHIPPING FREQUENCY: QUANTITY 1 PER month

I. SPECIAL HANDLING INFORMATION/COMMENTS:

Material packed in polyethylene bag

in drums with Aluminum C

J. I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED ABOVE AND ALL ATTACHMENTS ARE COMPLETE AND ACCURATE AND THAT ALL SAMPLES SUBMITTED ARE REPRESENTATIVE OF THE WASTE.

3-10-87
DATE

TITLE

GENERATOR'S SIGNATURE

301480

Polychlorinated Biphenyl (PCB) Warranty

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~~ISLAND CHEMICAL CO INC~~ ISLAND CHEMICAL CO INC hereby warrants that materials transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by polychlorinated biphenyl (PCB) at a level greater than 40 ppm when measured in each container or vessel, and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED:

3-11-87

BY:

ISLAND CHEMICAL CO INC.
Robert Chalm, Secretary

WITNESS:

Alan L. Kyle

Herbicide/Pesticide Warranty

~~ISLAND CHEMICAL CO INC~~ ISLAND CHEMICAL CO INC hereby warrants that material transferred by it to S&W Waste, Inc. for transportation, treatment and/or disposal is not contaminated by herbicide/pesticide at a level greater than 0.001% when measured in each container or vessel transferred to S&W Waste, Inc., and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages or other liability resulting from the breach of this warranty.

DATED:

3-11-87

BY:

ISLAND CHEMICAL CO
Robert Chalm, Secretary

WITNESS:

Alan L. Kyle

Aluminum and Reactive Metal Warranty

~~ISLAND CHEMICAL CO INC~~ ISLAND CHEMICAL CO INC hereby warrants that material offered to S&W Waste, Inc. for transportation, treatment and/or disposal does not contain elemental aluminum or reactive metal paste, powder or pigment and hereby agrees to indemnify and hold S&W Waste, Inc. harmless from any costs, damages, or other liability resulting from breach of this warranty.

DATED:

3-11-87

BY:

ISLAND CHEMICAL CO INC
Robert Chalm, Secretary

WITNESS:

Alan L. Kyle

PRIORITY POLLUTANT VOLATILE ORGANIC ANALYSIS

LABORATORY ID #14116

LAB # 52954

CLIENT: ENVIRO SCIENCES-Island Chemical Project

SAMPLE SOURCE Sample #1

GC/MS Method 624*
Tier II Deliverables

PARAMETER	RESULT ug/l	METHOD BLANK ug/l	MDL
Chloromethane -----	U	U	10
Bromomethane -----	U	U	10
Vinyl Chloride -----	U	U	10
Chloroethane -----	U	U	10
Methylene Chloride -----	U	7.5J	10
1,1-Dichloroethene -----	U	U	10
1,1-Dichloroethane -----	U	U	10
Trans-1,2-Dichloroethene -----	U	U	10
Chloroform -----	8.2B	7.8J	10
1,2-Dichloroethane -----	U	U	10
1,1,1-Trichloroethane -----	U	U	10
Carbon Tetrachloride -----	U	U	10
Bromodichloromethane -----	U	U	10
1,2-Dichloropropane -----	U	U	10
Trans-1,3-Dichloropropene -----	U	U	10
Trichloroethene -----	U	U	10
Dibromochloromethane -----	U	U	10
1,1,2-Trichloroethane -----	U	U	10
Benzene -----	U	2.0J	10
cis-1,3-Dichloropropene -----	U	U	10
2-Chloroethylvinylether -----	U	U	10
Bromoform -----	U	U	10
Tetrachloroethene -----	U	U	10
1,1,2,2-Tetrachloroethane -----	U	U	10
Toluene -----	3.900B	4.9J	10
Chlorobenzene -----	U	U	10
Ethylbenzene -----	6.7J	U	10
Total Xylenes -----	U	U	10

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

301482

AL2E6424



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 52954

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #1

SAMPLE DATE: February 29, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

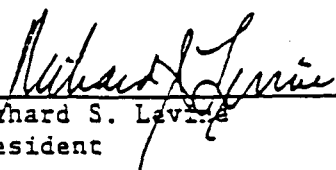
PARAMETER

RESULT

Benzophenone ----- Neat Benzophenone

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

HC664568

301483



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 14, 1986

LAB # 52954

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: Sample #1

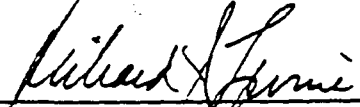
SAMPLE DATE: February 28, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 7, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Ignitability -----	Ignites without persistent burning
Specific Gravity -----	<u>21.97</u>
pH(units) -----	<u>8.06</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301484

ALN669168

Appendix J
Disposal Manifests



HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

Form Approved

res 7-31-85

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1

ATTACHMENT K

ac areas Federal

Generator's Name and Mailing Address

ISLAND CHEMICAL COMPANY
300 FAIRFELD ROAD
WAYNE NEW JERSEY 07090

Trailer Number
RME 251880

A. State Manifest Document Number

CWMA 243031

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

205/652-9721

4. Generator's Phone (201) 694-4100

5. Transporter 1 Company Name

O'NEALE'S TRUCKING & TRAILER
TRANSPORT, INC.

6. US EPA ID Number

PRD 98061815719

7. Transporter 2 Company Name

TRICAL MARINE TRANSPORT INC.

8. US EPA ID Number

PRD 98061815710

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number

A L D 00062214614

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers

No. Type

13. Total Quantity

14. Unit

Wt/Vol

Waste No.

a. HAZARDOUS WASTE LIQUID NOS (TOLUENE & BENZENE)

ORM-E NA 9189

CWM Profile Number ALAD 43602

44 M

b. HAZARDOUS WASTE LIQUID NOS (TOLUENE & CHLOROFORM)

ORM-E NA 9189

CWM Profile Number ALAD 43603

350 M

c. HAZARDOUS WASTE SOLID NOS (TOLUENE & CHLOROFORM)

ORM-E NA 9189

CWM Profile Number ALAD 43604

110 M

d. CWM Profile Number

Additional Descriptions for Materials Listed Above

11a. Less than 1.0% Toluene and Benzene

SLIGHT ODDOR OF BENZYL ACETATE

11b. APPROXIMATELY 20% BENZENE, PRIMARILY BENZYL ACETATE

11c. Less than 1.0% Toluene and Benzene Chloroform

K. Handling Codes for Wastes Listed Above

D81

D81

D81

D81

15. Special Handling Instructions and Additional Information

11c. Soil present in these drums. Must be inspected by USDA-PAC Prior to
Departure from Ft. Cox. Permit Included.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name

Alan L. Kyle

Signature

Alan L. Kyle

Month Day Year

11/01/89

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

O'Neale's Transport Inc.

Signature

Thorton C. M. Smith Jr.

Month Day Year

11/01/89

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

HELEN HENRI

Signature

HELEN HENRI

Month Day Year

11/01/89

19. Discrepancy Indication Space

0 12/3

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name

HOWARD TOMPCE

Signature

Howard Tompce

Month Day Year

11/20/89

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. V10980651095	Manifest Document No.	22. Page 2 of 2	Information in the shaded areas is not required by Federal law	
23. Generator's Name ISLAND CHEMICAL COMPANY 300 FARRFIELD ROAD 07470 WAYNE, NEW JERSEY 07470		Trailer Number RTM2 251880		L. State Manifest Document Number CWMA 243031		
24. Transporter Company Name RENKER NATIONAL		25. US EPA ID Number FL0980803977		N. State Transporter's ID		
26. Transporter Company Name DVDES DANGER		27. US EPA ID Number FL0980803977		O. Transporter's Phone		
				P. State Transporter's ID		
				Q. Transporter's Phone 319-43062110		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)					29. Containers	30. Total Quantity
					No.	Type
a. ~~HAZARDOUS WASTE LIQUID NOS (TOLUENE & BENZENE)~~ CRATE NO 9189						
CWM Profile Number ALAD 48602					111	711
b. ~~HAZARDOUS WASTE LIQUID NOS (TOLUENE & CHLORFORM)~~ CRATE NO 9189						
CWM Profile Number ALAD 48603					35	DM
c. ~~HAZARDOUS WASTE SOLID NOS (TOLUENE & CHLORFORM)~~ CRATE NO 9189						
CWM Profile Number ALAD 48604					1	DM
d.						
CWM Profile Number						
e.						
CWM Profile Number						
f.						
CWM Profile Number						
g.						
CWM Profile Number						
h.						
CWM Profile Number						
i.						
CWM Profile Number						
S. Additional Descriptions for Materials Listed Above					T. Handling Codes for Wastes Listed Above	
28a. Less than 1% Toluene and Benzene Slight odor of benzene acetate					a. d. g.	
28b. Approximately 20% organic peroxide Benzyl Acetate					b. e. h.	
28c. Less than 1% Toluene & Chloroform					c. f. i.	
32. Special Handling Instructions and Additional Information 28c. See permit in these drums. Must be registered by USDO-PPQ prior to departure from NJ. Permit included.						
33. Transporter Acknowledgement of Receipt of Materials					Date	
Printed/Typed Name Oneida Transport, Inc			Signature Robert M. Smith		Month Day Y. 1 11 76	
34. Transporter Acknowledgement of Receipt of Materials					Date	
Printed/Typed Name CHARLES M. DUKON			Signature Charles M. Dukon		Month Day Y. 12 1 76	
35. Discrepancy Indication Space						



HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Use print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2000-0404 Expires 7-31-03

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. V11098016151095170003	Manifest Document No. 170003	2. Page 1 of 2	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address ISLAND CHEMICAL COMPANY 300 FAIRFIELD ROAD 07070 WAYNE, NEW JERSEY 07090		Trailer Number TME 680365		A. State Manifest Document Number CWMA 243032		
4. Generator's Phone (201) 690-4100				B. State Generator's ID		
5. Transporter 1 Company Name ONEALE'S TRUCKING AND TRAILER TRANSPORT, INC.		6. US EPA ID Number P2201980161425179		C. State Transporter's ID		
7. Transporter 2 Company Name TRAILER MARINE TRANSPORT, INC.		8. US EPA ID Number P2201980161425179		D. Transporter's Phone		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459		10. US EPA ID Number A11000016121241614		E. State Facility's ID		
				F. Facility's Phone 205/652-9721		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.	
a. HAZARDOUS WASTE LIQUID NCS (TOLUENE & BENZENE) ORM-E NA9189 CWM Profile Number ALAD 48602		11	20	1	11	
b. HAZARDOUS WASTE LIQUID NCS (TOLUENE & CHLOROPHENE) ORM-E NA9189 CWM Profile Number ALAD 48603		11	10	1	11	
c. HAZARDOUS WASTE SOLID NCS (METAL DRUMS) ORM-E NA9189 CWM Profile Number ALAE 68804		11	4	1	11	
d. CWM Profile Number						
J. Additional Descriptions for Materials Listed Above 11a. Less than 1.0% Toluene and Benzene 11b. Approximately 20% organic, primarily Benzene 11c. Drums contain pieces of metal drums w/ Voids		K. Handling Codes for Wastes Listed Above a. DB1 c. DB1 b. DB1 d.				
15. Special Handling Instructions and Additional Information 11c. Drums will have to be filled with inert material by CWMA						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.						
Printed/Typed Name ALAN L. KYLE		Signature Alan L. Kyle		Month Day Year 11/01/1985		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Oneale's Transport Inc Norton C. M. Burt		Signature Norton C. M. Burt		Month Day Year 11/01/1985		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name GEORGE KERRI		Signature George Kerr		Month Day Year 11/20/85		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name HOWARD TOMPCE		Signature Howard Tompce		Month Day Year 11/20/85		

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. V 1 D 9 8 0 6 5 1 0 9 5	Manifest Document No. IC003	22. Page 2 of 2	Information in the shaded areas is not required by Federal law	
23. Generator's Name ISLAND CHEMICAL COMPANY 300 PARKFIELD ROAD WAUNATE, NEW JERSEY 07070 TEL 201-674-0100		Trailer Number TMTZ 680365		L. State Manifest Document Number CWMA 243032		
24. Transporter's Company Name RENGER NATIONWIDE		25. US EPA ID Number FLD 980803977		N. State Transporter's ID		
26. Transporter's Company Name RYDER RANGER		27. US EPA ID Number FLD 007022579		O. Transporter's Phone		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		29. Containers		30. Total Quantity		31. Unit
		No. Type				Wt/Vol
a. HAZARDOUS WASTE LIQUID NOS (TOLUENE & Benzene) ORM-E NA 9189 CWM Profile Number ALAD 48602		12 DM				
b. HAZARDOUS WASTE LIQUID NOS (TOLUENE & Benzene) ORM-E NA 9189 CWM Profile Number ALAD 48602		10 DM				
c. HAZARDOUS WASTE SOLID NOS (METAL DRUMS) ORM-E NA 9189 CWM Profile Number ALAE 61802		14 DM				
d. CWM Profile Number ALAE						
e. CWM Profile Number 12/3						
f. CWM Profile Number						
g. CWM Profile Number						
h. CWM Profile Number						
i. CWM Profile Number						
S. Additional Descriptions for Materials Listed Above				T. Handling Codes for Wastes Listed Above		
28a. Less than 10% Toluene & Benzene				a. d. g.		
28b. Approximately 20% organic, primarily benzene & acetone				b. e. h.		
28c. Drums contain pieces of metal drums & voids				c. f. i.		
32. Special Handling Instructions and Additional Information 28c. Drums will have to be filled with inert material by CWM.						
33. Transporter Acknowledgement of Receipt of Materials						
Printed/Typed Name WILLIAM C. M. RENT		Signature <i>William C. M. Rent</i>		Date 11/21/98		
34. Transporter Acknowledgement of Receipt of Materials						
Printed/Typed Name JEFFREY DAILEY JR		Signature <i>Jeffrey Dailey</i>		Date 11/21/98		
35. Discrepancy Indication Space						



HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Use print or type. (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No. 2000-CAC-3 Expires 7-31-05

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. **V1101980651101952001**
Manifest Document No. **2001**

2. Page 1 of 2
Information in the shaded areas is not required by Federal law

Generator's Name and Mailing Address

ISLAND CHEMICAL COMPANY
500 FAIRFIELD ROAD
WAYNE NEW JERSEY 07470
Generator's Phone (201) 674-4100

Trailer Number
RTMZ;274676

A. State Manifest Document Number
CWMA 243033

B. State Generator's ID

3. Transporter 1 Company Name
O'NEALE'S TRUCKING & TRAILER
TRANSPORT, INC.

6. US EPA ID Number
P.R.D. 91806142579

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name
TRAILER MARINE TRANSPORT, INC.

8. US EPA ID Number
P.R.D. 91806142579

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number
A L D 0 0 0 6 2 2 4 6 4

G. State Facility's ID

H. Facility's Phone
205/652-9721

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers
No. Type

13. Total
Quantity

14. Unit
Wt/Vol

15. Waste No.

a. **HAZARDOUS WASTE SOLID NOS (TOLUENE & ACETONE)**
ORM-E NA 9189
CWM Profile Number **ALA E68803**

115 D M

b. **HAZARDOUS WASTE SOLID NOS (TOLUENE & CHLOROFORM)**
ORM-E NA 9189
CWM Profile Number **ALA D48604**

23 D M

c. **HAZARDOUS WASTE LIQUID NOS (TOLUENE & BENZENE)**
ORM-E NA 9189
CWM Profile Number **ALAD48602**

38 D M

CWM Profile Number

Additional Descriptions for Materials Listed Above

11a. less than 1.0% Toluene and Acetone
11b. less than 1.0% Toluene and Chloroform
11c. less than 1.0% Toluene and Benzene
NOS SLIGHT ODOR OF Benzyl Acetate

K. Handling Codes for Wastes Listed Above

a. DB1

c. DB1

b. DB1

d.

15. Special Handling Instructions and Additional Information

NONE / ITEMS 11a, 11b, 11c. SOLID. MUST BE INSPECTED BY CWM-PPD PRIOR TO DEPARTURE FROM ST. CROIX. PERMIT IN HAND

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name

ALAN L. KYLES

Signature

Alan L. Kyles

Month Day Year

11/01/98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

O'Neale's Transport Inc
NOTION C.M. BURT

Signature

Thorton C. M. Burt Jr.

Month Day Year

11/01/98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

GENDA HENRI

Signature

Genda Henri

Month Day Year

11/02/98

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

HOWARD TEMPLE

Signature

Howard Temple

Month Day Year

11/20/98

UNIFORM HAZARDOUS
WASTE MANIFEST
(Continuation Sheet)

21. Generator's US EPA ID No.

V1D980651095 IC001

Manifest
Document No.

22. Page

2 of 2

Information in the shaded areas
is not required by Federal
law

3. Generator's Name

ISLAND CHEMICAL COMPANY
300 FAIRFIELD ROAD 07070
WAYNE, NEW JERSEY ~~07093~~ TEL 201-694 2100

Trailer Number
RTM2; 274676

L. State Manifest Document Number

CWMA 243033

M. State Generator's ID

24. Transporter's Company Name

RANGER NATIONWIDE

25. US EPA ID Number

FLD 980803977

N. State Transporter's ID

O. Transporter's Phone

26. Transporter's Company Name

RYDER RANGERS

27. US EPA ID Number

1-1-1 007002570

P. State Transporter's ID

Q. Transporter's Phone 212-430-6210

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

a. ~~HAZARDOUS WASTE SOLID NON-FLAMMABLE~~

ORM-E NA 9189

CWM Profile Number ALA66023

15 DM

b. ~~HAZARDOUS WASTE SOLID NON-FLAMMABLE~~

ORM-E NA 9189

CWM Profile Number ALA09104

23 DM

c. ~~HAZARDOUS WASTE LIQUID NON-FLAMMABLE~~

ORM-E NA 9189

CWM Profile Number ALA6602

58 DM

d. ~~HAZARDOUS WASTE SOLID NON-FLAMMABLE~~

CWM Profile Number ALA1013

e. ~~HAZARDOUS WASTE SOLID NON-FLAMMABLE~~

CWM Profile Number

f. ~~HAZARDOUS WASTE SOLID NON-FLAMMABLE~~

CWM Profile Number

g. ~~HAZARDOUS WASTE SOLID NON-FLAMMABLE~~

CWM Profile Number

h. ~~HAZARDOUS WASTE SOLID NON-FLAMMABLE~~

CWM Profile Number

i. ~~HAZARDOUS WASTE SOLID NON-FLAMMABLE~~

CWM Profile Number

S. Additional Descriptions for Materials Listed Above

20. Less than 10% Toluene and Benzene
21. Less than 10% Toluene and Chloroform
22. Less than 10% Toluene and Benzene
23. Less than 10% Toluene and Benzene
24. Less than 10% Toluene and Benzene

T. Handling Codes for Wastes Listed Above

a. d. S.
b. e. h.
c. f. i.

22. Special Handling Instructions and Additional Information

See Permit for Items 11a & 11b. MUST BE INSPECTED BY USOP-PFO PRIOR
TO DEPARTURE FROM ST. CROIX PERMIT INCLUDES

Chas. R. 10/09/85

33. Transporter Acknowledgement of Receipt of Materials

Date

Printed/Typed Name
Walter C. M. Roubert

Signature

Walter C. M. Roubert

Month Day Year

10 11 1985

34. Transporter Acknowledgement or Receipt of Materials

Date

Printed/Typed Name
Walter R. Louett

Signature

Walter R. Louett

Month Day Year

11 11 1985

Discrepancy Indication Space

301491

Appendix K
ESI February 7, 1986 Letter to USEPA Regarding Waste Disposal



19 COPELAND RD., DENVILLE, NEW JERSEY 07834
(201) 366-6256

February 7, 1986

Mr. Conrad Simon
USEPA Region II
26 Federal Plaza
New York, N.Y. 10007

Dear Mr. Simon:

Enviro-Sciences, Inc. (ESI) has completed the proposed scope of work for on site cleanup of the Island Chemical Company (Berlex) facility in St. Croix, U.S. Virgin Islands. The cleanup program and methodology were presented to Mr. Robert Harris of your office in December, 1984 and ammended in a subsequent report dated April 4, 1985.

Briefly, the cleanup involved decontamination at several locations. These are:

- 1) soil around above ground storage tanks - Toluene;
- 2) soil around a concrete pad - Toluene;
- 3) soil along a collapsed drain line - Toluene, Heavy Metals;
- 4) water and sludge in a process pit - Toluene, Heavy Metals, Benzyl Acetate; and
- 5) soil in a laboratory waste pit - Pyridine.

All materials from the first four (4) locations listed above were containerized in proper 55-gallon steel drums, manifested and shipped as hazardous wastes to Chemical Waste Management, Inc. (CWM) Emelle, Alabama. CWM acknowledged receipt of these materials for disposal.

The laboratory waste pit soil was treated on site to decrease pyridine contamination level from above 1000 ppm to less than 2 ppm. ESI considers this level of contamination to be below levels which would require any additional cleanup efforts.

February 7, 1986

Page -2-

The collapse of the drain line and subsequent analysis of soil has initiated the need to conduct additional sampling off-site in the "gut" or dry creekbed. ESI will undertake this sampling program immediately to ascertain the presence of contamination and, if present, concentration levels.

We would appreciate any comments relating to our cleanup program at the Island Chemical Company site.

You may contact me or Mr. Irving Cohen at (201) 366-6256.

Very truly yours,

ENVIRO-SCIENCES, INC.

Alan L. Kyles, Ph.D.
Vice President

ALK/ak

cc: Robert Milos
Frank Curtis

301494



Appendix L
USEPA Pollution Reports

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: February 8, 1989

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
M. Randol, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, DPNR
LEPC
TAT

POLREP NO: One (1)
INCIDENT/SITE NO.: N/A
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VI CHEM)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Groundwater, Caribbean Sea

1. SITUATION:

A. The Virgin Island Chemical Company (VICHEM) site is located on the Island's south side. The site is situated on Route 66, approximately 0.5 miles due north of the Alexander Hamilton Airport. The site covers approximately 3.5 acres and is bordered to the north by an intermittent stream that originates on the north side of the Island and discharges into the Caribbean Sea.

A number of residences and industries are located as close as one-tenth of a mile from the site. In addition, several well fields are located in the vicinity of the site. The St. Croix prison is located 1/4 mile downwind from the site. DPNR stated it would be very difficult to evacuate prisoners in the event of a chemical fire at the site.

B. The site consists of a main warehouse building including offices, the reactor, centrifuge and maintenance buildings and fourteen above ground tanks. Living on-site adjacent to the main warehouse building are anywhere from 15 to 25 guard dogs housed in individual kennels.

Also living on-site is the kennel operator, Kate Wesp. A house trailer is located on the concrete surface near the

loading dock. It is also apparent that Wesp uses the restroom facilities and kitchen area in the main building as living quarters.

C. Presently occupying the site is the company VIAG Fuels, Inc. VIAG utilizes some office space in the main building and also has ethanol stored in four of the aboveground tanks. The principals of the firm plan to begin an alcohol dehydration project on-site in the near future.

D. The 3.5 acre site is owned by Charles H. Steffey, Inc. On May 1, 1969 Steffey leased the property to Houston Chemical Industries, Inc. Houston Chemical assigned the lease to Caribe Chemical Company, Inc., (subsequently known as Pierrel America, Inc.) on March 20, 1972.

On June, 1978, Pierrel America assigned the ground lease to Cooper Laboratories, Inc. (Cooper). On October 30, 1979 Cooper Laboratories assigned the lease to its subsidiary, Island Chemical Company (ICC). On November 1, 1979, Cooper Laboratories sold all of the stock of ICC to the predecessor of Berlex Laboratories, Inc. (Berlex). On September 14, 1984, ICC sold its assets to Virgin Island Chemical Company (VICHEM).

This background information has been supplied by the Virgin Islands Department of Planning and Natural Resources (DPNR).

E. Limited PRP (Berlex) site clean-up and soil excavation has taken place in the recent past under a RCRA enforcement action. Berlex is currently finalizing a scope of work for a remedial investigation/feasibility study addressing soil and groundwater contamination.

2. ACTION TAKEN:

A. On Tuesday, January 31, 1989, the U.S. EPA Response and Prevention Branch conducted a Preliminary Assessment and Removal Evaluation at the VICHEM site. This action is in reply to a request from George Pavlou, Associate Director Enforcement Programs dated 1/23/89.

B. This preliminary assessment was coordinated with and observed by DPNR personnel. DPNR's primary concerns with this site are the threat of fire/explosion, and the threat (or actual) migration of spilled materials to the surrounding soil and groundwater.

C. The initial entry into the main warehouse building was made at 0930 hrs. on January 31, 1989. All safety procedures were followed for a level "B" entry in a hot climate. Air monitoring was conducted with OVA, HNU, CGI, Radiation Detector, HCN Monitox, H₂S Monitox and pyridine

Draeger tubes. All air monitoring readings were equivalent to background (taken off-site), except for in room 5 of the drum warehouse which showed ambient conditions 1 unit above background on the OVA. All further entries were made in level "C".

D. Three areas were delineated based upon the type of material located in each of these areas are:

- A. The laboratory (main building).
- B. The drum storage warehouse (main building).
- C. The grounds outside the building including the reactor and centrifuge.

Each of these areas will be described below.

1. Laboratory

813 containers of laboratory reagents and unknown liquid and solid material are located in this area. Some of the more dangerous items of note are as follows:

- a. Sodium metal (2 boxes). Water reactive.
- b. Ethyl Ether (6 cans). Potential explosive.
- c. Diisobutyl aluminum hydride (4 lecture bottles). Spontaneously combusts in air.
- d. Potassium cyanide (2 bottles). Poisonous. Stored near acids, potential for release of hydrogen cyanide gas.
- e. Phosphorous pentoxide (1 bottle). Reactive.
- f. Sodium hydride (1 bottle). Water reactive.
- g. Two flammable storage cabinets containing various materials and unknowns.
- h. Two office type storage cabinets. One cabinet has spilled material on the top shelf which has dripped downward to mix with other chemicals.

Many other chemicals exist in the laboratory, as well as many containers with unknown materials. All the chemicals which had dates are at least five years old.

2. Drum Storage Warehouse

In the main warehouse are located approximately 400 drums, of these, 211 are green painted drums which have the words ETHYL ALCOHOL stenciled on the lid. The condition of the ethyl alcohol drums vary from fairly sound to extremely deteriorated. Some of the drums consist of only a rusted shell with gaping corroded holes. A rough estimate shows that 100 are empty and 100 contain material. This material may be some type of sludge. Other materials found are as follows:

- a. Laboratory unknowns (75 containers less than 1 gal.)
- b. Methanol (5 x 55 gal.)
- c. Glacial acetic acid (13 x 55 gal.)
- d. Benzyl acetate (21 x 55 gal.)
- e. Toluene (8 x 55 gal.)
- f. Antifreeze/glycol (20 x 55 gal.)
- g. Benzyl chloride (28 x 55 gal.)
- h. Salicylic acid (27 fiber drums)
- i. Methyl isobutyl carbinol (12 x 55 gal.)
- j. Sodium hydroxide (12 x 55 gal.)
- k. Bulging drum, unmarked (1)
- l. Drums in which some type of reaction has taken place, lid popped off (2)
- m. Drums of known and unknown material.
- n. Paint (97 x 5 gal. - 21 x 1 gal.)
- o. Cylinder chlorine (1 poor condition).
- p. Cylinder hydrogen chloride (1 deteriorated condition).
- q. One drum of sulfonic acid, broken and leaking its contents.
- r. A cistern with PVC pipe leading to a pumping system outside the building.

3. Outside Grounds

An inspection of the reactor and centrifuge and maintenance buildings revealed various production materials including lubricating oils; propane; oxygen and acetylene cylinders; filter media; ethanol; assorted paints and some sodium hexa-meta phosphate. Some of the oil drums are leaking.

Scattered around the facility are eight stainless steel tanks with quantities of unknown liquid varying from empty to three quarters full. A large storage tank is on site along with numerous pressure and reaction vessels. Fourteen large green storage tanks are also on-site. Ten are planned to be used in the alcohol dehydration project. Four of the ten are full of ethanol. The other six are empty. The remaining four not being used are empty and unsound.

E. The Governors office Department of Fire Services was contacted to assess local chemical fire control capabilities. Three fire companies are located on the island with the nearest to the site being Grove Place. All firefighting personnel are equipped with SCBA, however, only some have had formalized chemical hazard training. A limited amount of foam capability is available.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. The USEPA CERCLA Enforcement Program is actively pursuing PRP involvement in a site clean-up and drum removal.

B. An action memo and disposal plan will be drafted by this branch in the event the PRP's fail to act promptly.

FURTHER
POLREPS
FINAL POLREP _____ FORTHCOMING X SUBMITTED BY Douglas R. Kodama
Douglas R. Kodama,
OSC
Response and
Prevention Branch

DATE RELEASED Feb 8, 1989

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: June 7, 1989

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
M. Randol, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, DPNR
LEPC
TAT

POLREP NO.: Two (2)
INCIDENT/SITE NO.: N/A
POLLUTANT: Lab chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, U.S. Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Groundwater, Caribbean Sea

1. SITUATION:

A. Same as previous polrep. Site conditions have not significantly changed.

2. ACTION TAKEN:

A. OSC discusses contents of Notice Letters with ORC and Enforcement Programs. On March 13, 1989 Notice Letters were issued to the following Potentially Responsible Parties (PRPs): Berlex Laboratories, Island Chemical Company, CHS Holding Company (land owner), Virgin Island Chemical Company, and VIAG Fuels.

B. March 30, OSC receives copies of Notice Letter replies from Berlex, VIChem and VIAG Fuels. None of the PRP's are willing to conduct or finance a CERCLA response. OSC informed verbally that Region II will conduct a removal action at this site and that an Administrative Order may not be issued to the PRPs.

301501

C. April 5, OSC contacts D. Weston of VIAG Fuels and requests him to inform Enforcement Programs of VIAG's intended use of ethanol, paints and water treatment chemicals, thus averting the need for EPA to dispose of these materials.

D. OSC drafts memo to Enforcement Programs concerning enforcement issues which must be addressed prior to an EPA removal action. Issues include material owned or planned for purchase by VIAG and temporarily evacuating VIAG and St. Croix Security Kennels (SCSK). Memo issued April 20, 1989.

E. Draft Action Memorandum prepared and distributed for comment on May 17, 1989. Comments due June 2.

F. OSC contacts Fred Schubert, President of VIChem and receives verbal permission for access to the site during the week of May 22, 1989. Mr. Schubert was not aware that there were hydrogen chloride and chlorine cylinders on-site and knew nothing about the cans of ether stored in the labs. Mr. Schubert informed the OSC that he is making plans to repair the warehouse.

G. OSC discusses proposed removal action with representatives from DPNR on May 22. Discuss possibility of having DPNR order VIAG and SCSK to leave the site during on-site removal activities and monitoring the site prior to EPA's mobilization to the site. OSC will write a formal request for DPNR to carry out these tasks.

H. May 23, 1989, OSC discusses with Lt. Steve Hanewich, the possibility of using the US Coast Guard HazMat unit in San Juan for technical and contractor oversight assistance during the removal. USCG will need a Memorandum of Understanding (MOU) for reimbursement of lodging/per diem and disposable personnel protective gear.

I. OSC briefs the Caribbean Regional Response Team on EPA's proposed removal action at VIChem. FEMA recommends that during on-site treatment activities or a fire at the facility that the nearby prison not be evacuated.

J. OSC visits VIChem with OH Materials Project Manager on May 25, 1989 to review site conditions and discuss proposed clean up activities for the site. Conditions within the labs remains the same. Drums within the warehouse have been restaged in an orderly fashion however they are not staged by compatibility groups. The warehouse floor has been swept clean and the leaking drum of sulfamic acid has been overpacked, according to VIChem's President, however this drum was not located. One drum labeled "skin cleaner" was leaking.

According to D. Weston of VIAG, the company remains inactive and is having trouble getting ethanol from Europe. Within the tank farm, the first four tanks contain ethanol and the fifth tank contains diesel fuel. The red tank truck contains water

VIAG has had water from the on-site well analyzed and determined that it was free of contamination and suitable for their treatment process. OSC inquired if chloroform was included in these analyses, Mr. Weston was not sure.

K. May 26, 1989, OSC meets with Winston Turnbull, Director for VI Fire Services and Kirk Grybowski, Director for VI Emergency Management Services and briefed them on EPA's proposed removal action. Grybowski recommended meeting with the St. Croix hospital administrator and EMS's Deputy Director on St. Croix to discuss EPA's on-site decontamination procedures since neither the hospital or EMS is prepared to receive contaminated personnel.

L. May 30, OSC receives copies of letters from VIChem (thru Enforcement Programs) stating that "VIChem is prepared to make its best effort to undertake the clean-up at the site" and "As you know, I feel the clean up needed at the site is quite manageable...". This contradicts VIChem's reply to the Notice Letter in which VIChem stated "...I have to indicate for the record that Virgin Island Chemical Company has no funds with which to have any required work carried out and has no staff to perform such work."

M. OSC coordinates with Enforcement Programs and is informed that ORC and NY/CC will meet on June 1 to develop an enforcement strategy.

N. June 2, 1989, OSC has received comments on draft action memo from AD-REPP and at his suggestion will include resampling of wells contaminated with chloroform in the scope of work for this removal.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. OSC will investigate the possibility of developing a MOU with USCG for MSD-San Juan HazMat assistance during the removal action.

B. OSC will request ATSDR to notify and inform the St. Croix hospital and EMS of EPA's proposed activities and decontamination procedures which will be available.

C. OSC will prepare notification procedures and a contingency plan for the prison at Golden Grove.

D. OSC will develop CAMEO plume models for various weather conditions and air release scenarios.

E. OSC will formally request DPNR to monitor the site prior to EPA's mobilization, investigate the possibility of DPNR ordering SCSK and VIAG off-site during EPA's removal action, and request a list of appropriate agencies and politicians to notify concerning the proposed removal action.

FINAL POLREP _____ FURTHER
POLREFS
FORTHCOMING X SUBMITTED BY Douglas R. Kodama
Douglas R. Kodama
OSC
Response and
Prevention Branch

DATE RELEASED June 7, 1989

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: August 8, 1989

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: W. Myszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
M. Randol, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Three (3)
INCIDENT/SITE NO.: N/A
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, USVI
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Groundwater, Caribbean Sea

1. SITUATION

A. Same as previous POLREPs. Site conditions have not significantly changed.

2. ACTION TAKEN

A. June 14, 1989, conference call conducted between ORC, NYCCB, OSC and F. Schubert (owner of VIChem). Mr. Schubert explained that he will not be able to finance a clean-up at the facility. EPA informed him that due to the significant hazards presented by the site, Region II is prepared to conduct a removal action and remove the chemicals from the facility.

EPA informed Mr. Schubert that he will have approximately one month to contact facilities which may be interested in buying some of the materials on-site. EPA will send him a Letter of Intent form to be used during these recycling efforts.

Mr. Schubert had no objection to EPA removing all chemicals from the site and further stated that he would not be obstructive to EPA's cleanup.

301505

B. July 18, 1989, Action Memorandum finalized and sent to NY

office for concurrence and approval.

OSC received a copy of a letter from Mr. Schubert to NYCCB, stating that he has a potential buyer for the site and requesting EPA to hold off on the removal action. OSC coordinated with NYCCB on this matter.

C. July 25, 1989, Chief RPB coordinated with ORC on potential sale of VIChem.

D. August 1, 1989, receive fax from NYCCB concerning VIAG's request to start operation shortly and install a water treatment unit for their ethanol dehydration operation.

E. August 4, 1989, conference call conducted with OSC, ORC, NYCCB and F. Schubert. The potential sale of VIChem has fallen through and it appears doubtful that a sale with other potential buyers will occur. Mr. Schubert assured EPA that all prospective buyers of VIChem are aware of EPA's interest in having the site cleaned-up. ORC informed Mr. Schubert that EPA will proceed with our plans for a Superfund clean up, EPA will send him an access agreement form for his signature and wanted to be sure that all prospective buyers have received copies of the March 13, 1989 Notice Letter to VIChem.

F. August 8, 1989, Consent for Access to Property form sent by ORC to F. Schubert. Acting Regional Administrator approves Action Memorandum.

FUTURE PLANS AND RECOMMENDATIONS:

A. OSC will initiate a Delivery Order for O.H. Materials to conduct the site clean up.

B. OSC will inform USVI DPNR about the Action Memorandum approval.

C. OSC will coordinate contingency planning meeting for appropriate U.S.V.I. public agencies.

FURTHER
POLREPS
FINAL POLREP _____ FORTHCOMING X SUBMITTED BY


Douglas R. Kodama
On-Scene Coordinator
Response and
Prevention Branch

301506

DATE RELEASED Sept. 7, 1989

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: September 8, 1989

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
M. Randol, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Four (4)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. The Action Memorandum was approved by the Acting Regional Administrator on August 8, 1989. Site conditions have not significantly changed.

2. ACTION TAKEN:

A. August 8, 1989, OSC coordinated with ORC concerning language in Consent for Access to Property form to be sent to F. Schubert, owner of VIChem and discuss possibility of placing a lien on VIChem's property.

B. August 9, 1989, OSC informed of Action Memo approval. Receive Site ID No. from PSB, 4V. Delivery Order Number 7445-02-064. Initiate Procurement Request for \$250,000.

Upon reveiwing and approving the Action Memo, the Acting RA revealed several concerns about this removal including 1) possible RCRA violations by Berlex, 2) a schedule for the removal of the 40,000 gallons of ethanol stored on the site, 3) additional PRPs and 4) can the site be designated. OSC instructed to contact VIAG and determine the schedule for removing the ethanol from the site. Other concerns will be addressed by other program offices.

301507

C. August 10, 1989, receive DCN, KE3042 for \$250,000.

D. August 25, 1989, OSC contacts VIAG, D. Weston and was informed that VIAG intends to buy the 40,000 gallons of ethanol from Ethanol Corp. by the third week in September. It will take VIAG one day to dehydrate this alcohol and less than one week to sell and ship the material off-site to the buyer. By October, VIAG expects to be able to purchase ethanol from Europe and start full operation.

OSC expressed his concern for the safety of VIAG and St. Croix Security Kennels personnel (and dogs) while EPA is conducting the clean-up at the site and the hazards posed by the materials on-site. Mr. Weston shared the same concerns and seemed agreeable to vacating the site while EPA is working at the site.

OSC drafts reply addressing Acting RA's concerns regarding a schedule for the removal of ethanol from the site and sends it to ERRD for a coordinated response to the Acting RA.

E. August 29, 1989, John Higgins assigned as alternate OSC for the VIChem removal and D. Kodama to act as his mentor under the new Mentoring Program per OSWER Directive 89285.9-01.

A. Bosques of the CFO may also assist with this removal.

Initiate two Procurement Requests for \$250,000 and \$500,000.

F. August 30, 1989, OSC coordinates with DPNR (G. Rhymer) concerning contingency planning meeting for VIChem removal. DPNR will send out letters to appropriate public agencies and schedule the meeting.

OSC reviews Delivery Order scope of work with Program Management for the ERCS contractor, O.H. Materials (OHM). OHM will be the ERCS contractor for this removal since they are the only ERCS contractor to serve the Caribbean.

G. September 5, 1989, Jeff Bodi assigned as Response Manager for OHM.

OSC coordinates with DPNR and informed contingency planning meeting scheduled for September 13, at 10 am. St. Croix Fire Department, Police Department, Emergency Management Agency, Emergency Medical Team, and Department of Justice (Corrections) will attend.

OSC coordinates with ORC concerning access agreement. The signed access agreement has not been received from VIChem yet. However, ORC contacted Mr. Schubert on August 31 and was informed that he will send it to EPA soon.

301508

H. September 6, 1989, OSC receives two additional DCNs.

KE3069 for \$500,000 (9/1/89) and KE3073 for \$250,000 (9/6/89). This brings the total obligated funds for mitigation contracts to \$1,000,000.

OSC develops removal briefing and contingency plan for September 13 meeting.

OSC writes letter to VIAG informing them to proceed with removal of paints and that their alcohol dehydration operation may proceed as long as it does not interfere with the removal action. As for their request to discharge water from their operation to the adjacent ditch, NYCCB will make this decision.

I. September 7, 1989, OSC initiates a Procurement Request for \$262,000. This will bring the total obligated funds to \$1,262,000 which is the mitigation contracting ceiling.

Discuss Delivery Order with OHM Response Manager. The Response Manager and a Chemist will attend the contingency planning meeting and visit the site with the OSC.

J. September 8, 1989, OSC distributes POLREP 3 and sends Preliminary Assessment form (EPA Form 2070) to PSB for processing.

Concerning future plans listed in Polrep 2, time and administrative constraints will not allow for development of an Inter Agency Agreement with the US Coast Guard. OSC will coordinate with EMT, and if appropriate, the St. Croix hospital next week. TAT continues to work on CAMEO plume model for possible chlorine and hydrogen chloride release.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. Discuss local response agency concerns at contingency planning meeting on September 13.

B. Visit site and develop plan for mobilization with OHM on September 13 and 14.

C. Site mobilization tentatively scheduled for September 25 or October 2.

4. FINANCIAL ACCOUNTING:

A. Total Project Ceiling Authorized \$1,840,000

B. Total Funds Authorized for Mitigation Contracts as of 8/8/89 1,262,000

C. Expenditures for Mitigation Contracts

1.a. Amount Obligated to DCN KE3042 250,000

301509

1.b. Estimated Expenditures as of 9/8/89	-0-
1.c. Balance Remaining	250,000
2.a. Amount Obligated to DCN KE3069	500,000
2.b. Estimated Expenditures as of 9/8/89	-0-
2.c. Remaining Balance	500,000
3.a. Amount Obligated to DCN KE3073	250,000
3.b. Estimated Expenditures as of 9/8/89	-0-
3.c. Remaining Balance	250,000
D. Unobligated Balance Remaining	-0-
E. Estimate of Total Expenditures to Date for All Mitigation Contracts	-0-
F. Other Extramural Costs	
1.a. TAT salary/travel as of 8/8/89	-0-
H. Total Expenditures % of \$2 Million	-0- 0%
I. Percentage of Total Project Ceiling	0%

FINAL POLREP _____ FUTURE
 POLREPS
 FORTHCOMING X SUBMITTED BY

Douglas R. Kodama
 Douglas R. Kodama,
 On-Scene Coordinator
 Response and
 Prevention Branch

DATE RELEASED

Sept. 8, 1989

301510

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: Sept. 29, 1989

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
M. Randol, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Five(5)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. Site was impacted by hurricane "Hugo" from September 17 through September 19, 1989.

2. ACTION TAKEN:

A. September 12, 1989, OSC and Assistant OSC fly to St. Croix. Meet with VIAG, D. Weston. OSC reiterated his concerns for the safety of VIAG and St. Croix Security Kennels during site clean-up. D. Weston affirmed VIAG's agreement to vacate the site while EPA is working at the site.

VIAG also reassured EPA of their plans to process the ethanol that is now on-site and ship this material off-site by the end of September 1989. This ethanol will remain the property of Ethanol Corp. VIAG has an agreement with Ethanol Corp. in which VIAG dehydrates ethanol for them. Their plans to commence full operation of their alcohol dehydration process were also on schedule to occur in October 1989.

OSC noted the addition of a trailer to the site and VIAG responded that it was for removing their paint materials.

B. September 13, 1989, the Contingency Planning meeting is held at the St. Croix VIDPNR offices. The meeting went well with all concerned government agencies, except the National Guard, in attendance and actively participating. Agreement was reached to schedule a subsequent meeting for the following day for the purpose of developing a Local Responders site specific contingency plan using the Virgin Islands Local Contingency Plan as a model.

C. September 13, 1989, the OSC conducts a tour of the site for Jeff Bodi (Response Manager) and Jack Herzig (Chemist) of OHM, and Jeff Bechtel (TAT). Several items were discussed at subsequent meeting.

OHM agreed to develop waste treatment plan, QA/QC Plan, by September 22, 1989. The OSC agreed to coordinate with VIDPNR in requesting a waiver of the excise tax which would otherwise be levied on the materials OHM is to transport to the site. OSC directed OHM to provide daily Progress Reports while on-site, and informed OHM that financial data would have to be inputted to RCMS. OSC stated his preference for overpacking all drums to be transported for disposal because of the potential for reactions to occur during sea transport of bulked materials. The OSC directed OHM to mobilize crew when equipment is received on St. Croix.

OSC wrote up work orders for OHM activities for past two days.

D. September 14, 1989, met with VI Govt. officials at VIDPNR offices. Greg Rhymer of VIDPNR distributed a draft site-specific Contingency Plan. The Plan was reviewed, revised for phone number corrections, and the final version distributed during the meeting.

E. September 14, 1989, OSC met Alan Chardon of St. Croix Security Kennels and informed him of risks, prior to and during the clean-up, to humans and dogs that would be on-site. Alan agreed to drop off dogs prior to daily start-ups and pick up dogs after 6 p.m. OSC will write letter acknowledging this agreement and requesting contact numbers in the event of problems with the dogs.

F. September 14, 1989, VIAG expressed confusion with gaining government approval for their intended discharge of 10,000 gallons/day of wastewater from the reverse osmosis desalinization of saline well water, which is part of the alcohol dehydration process, to a drainage ditch. After conferring with Marcia Taylor of VIDPNR, the Assistant OSC and VIDPNR informed VIAG that a NPDES permit issued by VIDPNR would be necessary. VIDPNR further advised VIAG that it does not permit discharges to drainage ditches and advised VIAG to contact VIDPW for connection to the public sewerage system.

G. September 15, 1989, Assistant OSC drafted excise tax exemption letter to be signed by the VIDPNR Commissioner and sent to the VI Bureau of Internal Revenue. Greg Rhymer revised draft and said he would see to it being typed and signed.

H. OSC letter to U.S. Coast Guard, dated September 12, 1989, informing them that time and administrative constraints would not allow the development of an Inter-Agency Agreement for EPA to fund USCG involvement but that they will be welcome to observe site under USCG funding.

I. September 18, 1989, OSC receives additional DCN, KE3085 for \$262,00. This brings the total obligated funds for mitigation contracts to \$1,262,000.

J. Site Safety Plan developed by TAT is insufficient. OSC and assistant OSC will develop final plan.

K. September 26, 1989, EPIC aerial photos taken; photos showed very little structural damage to VICHem. The roof to the drum warehouse and labs appeared intact. All tanks appeared to be unaffected.

L. September 27, 1989 overflight of site was unsuccessful because site air space was closed for air traffic control reasons. September 28, 1989, Carlos O'Neill and Greg Rhymer visited site and the site conditions were assessed as stable and secure. The dogs were alive but some fence damage was noticed. VIDPNR agreed with EPA that site is not an emergency and clean-up can be postponed until support services are available.

M. October 2, 1989, Assistant OSC spoke with ORC concerning status of the Consent for Access to Property form. F. Schubert, owner of VICHem, stated to ORC on August 31, 1989 that he had received the form and that he would soon be returning the completed form. ORC has not yet received the completed form and will again contact Mr. Schubert. Also, Assistant OSC discussed possibility of placing liens on Vichem property, and any legal or financial ramifications of disaster relief, as a result of "Hugo", accruing to VICHem.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. Continue to discuss hurricane impact on site with CFO, VIDPNR, OHM, and TAT.

B. Coordinate clean-up operations with VIDPNR and prepare to mobilize when basic necessities (i.e., power, water, and lodging) are restored.

4. FINANCIAL ACCOUNTING:

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 9/29/89

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$7,116	\$242,884
KE3069	500,000	0	500,000
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$7,116	\$1,254,884

Other Costs

TAT Salary\Travel as of 8/31/89	0
EPA Salary\Travel as of 9/22/89	9,306

Estimate of Total Expenditures to Date	\$16,422

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
1%	1%	5%	0%

PERCENTAGE OF \$2 MILLION

1%

FINAL POLREP _____ FUTURE POLREPS FORTHCOMING X SUBMITTED BY John Higgins
 For Douglas R. Kodama,
 On-Scene Coordinator
 Response and
 Prevention Branch

DATE RELEASED September 29, 1989

301514

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: October 27, 1989

Region 11
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
M. Randol, EPA
G. Pavlou, EPA
E. Schaaf, EPA
ERD, WH-5488
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Six (6)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. Site was impacted by hurricane "Hugo" from September 17 through September 19, 1989.

September 28, 1989, EPA and DPNR visited site and the site conditions were assessed as stable and secure.

2. ACTION TAKEN:

A. October 17, 1989, OSC contacted by Scott Silverlight, attorney for potential purchaser of VIChem facility. Potential purchaser interested in getting the plant operating in three to four months. OSC informed Mr. Silverlight that the EPA removal action may take nine months or longer and may be postponed even further due to island disruption caused by hurricane Hugo.

OSC also informed Mr. Silverlight of the anticipated costs to conduct the clean up, types of materials present at the site, and why VIAG and SCSK have been allowed to continue operating at the site. OSC referred him to Enforcement Programs concerning information on any subsurface remediation at the site.

OSC informed Enforcement Programs and Office of Regional

301515

Counsel about his phone conversation with Mr. Silverlight.

B. October 24, 1989, OSC informed that Chief, RPB instructed the ERCS contractor to prepare to mobilize to the site to repair the site's perimeter fence and stabilize the site.

Under the circumstances of St. Croix's devastated infrastructure, OSC has revised the scope of work for this first phase to securing the site (fence repair), and if possible, sampling, segregating and overpacking drums. Due to concerns for worker safety, on-site treatment of reactive materials may not be conducted at this time.

C. OSC coordinated with ERCS contractor, OH Materials, October 24-27 deciding what equipment and supplies should be mobilized. A gally trailer (food), decon trailer, office trailer (command post), equipment trailer, three generators, bobcat, passenger van, pick-up truck, microwave communications system, foam fire fighting unit and other appropriate response gear are scheduled to be shipped from Elizabeth, NJ on Friday, October 27 and arrive in St. Croix on Thursday, November 2. All attempts to air lift the above equipment and supplies proved unsuccessful. The cost for this mobilization may range from \$100,000 to \$200,000.

As of October 27, lodging for the ERCS contractor remains an unresolved issue.

Due to the fact that the St. Croix hospital is not fully operational and outbreaks of typhoid and cholera may occur in the near future, OSC has requested an EMT certified Health and Safety Officer to monitor and treat the clean up crew as needed.

D. Response Manager arrives on St. Croix October 26 with an electrician and structural engineer to assess electrical generator hook-up needs and structural integrity of the buildings.

Initial entry by ERCS revealed water damage to the office area, however no spills were noted in the lab or drum storage area.

E. October 26, 1989, OSC receives a copy of a letter sent from DPNR Commissioner Smith to the Director of the Virgin Islands Internal Revenue Services dated October 11, 1989 requesting waiver of the Virgin Islands Excise Tax for equipment and supplies shipped to St. Croix for EPA's removal action. OSC will inquire as to the status of IRS's decision.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. OSC will arrive on St. Croix, November 1, 1989 and coordinate removal activities. OSC will instruct ERCS to mobilize crew once equipment has arrived on-island.

4. FINANCIAL ACCOUNTING:

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 9/29/89

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$7,116	\$242,884
KE3069	500,000	0	500,000
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000

Subtotal	\$1,262,000	\$7,116	\$1,254,884

Other Costs

TAT Salary\Travel as of 8/31/89	0
EPA Salary\Travel as of 9/22/89	9,306

Estimate of Total
Expenditures to Date

\$16,422

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
1%	1%	5%	0%

PERCENTAGE OF \$2 MILLION

1%

FINAL POLREP FUTURE
POLREPS FORTHCOMING SUBMITTED BY

Douglas R. Kodama
Douglas R. Kodama,
On-Scene Coordinator
Response and
Prevention Branch

Date Released
10/27/89

301517

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: November 8, 1988

Region II

TO: C. Sidamon-Bristoff,
EPA

Response and Prevention Branch
Kearney, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

W. Muczynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPWR
LEPC
TAT

POLICE NO.: Seven (7)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VICHem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1 SITUATION:

A Site damage from hurricane Hugo was minor. Portions of the perimeter fence were knocked down. No spills of materials attributed to storm, despite damage to roof of one lab. ERCS contractor (Oil Materials) directed to mobilize to site to repair perimeter fence, and if possible, sample, stabilize (overpack), and logrotate materials.

2 ACTION TAKEN:

A October 31, 1988. OSC continues removal mobilization coordination and preparation from Edison office. OSC authorizes two trailer loads of overpack drums, trauma kit for medic (EMT and Health and Safety Officer), cylinder overpacks, and a portion of partial crew from ERCS: Response Manager, Field and two electricians.

Continued with OSC and informs them of site status. OSC informs OSC that they still have a few more drums. VICHem Prep. but that VICHem will be EPA (verbally) that he would like to discuss with EPA's action.

301518

OSC informed that all four trailers (dorm, gally, office and equipment trailers), hobcat, pick-up truck and two 100 KW generators will arrive on St. Croix November 1 or 2.

OSC informed that phone service may be available at prison and quarter mile rock sites within one month. OSC will instruct OHM to prep phone lines for land line as well as microwave reception.

B November 1, 1989, OSC flies to St. Croix. ERCS mobilizes partial crew (Response Manager, Field Clerk, and two electricians).

C November 2, 1989, OSC temporarily works out of FEMA Disaster Field Office Annex, and coordinates with DPNR on status of excise tax waiver. OSC informed that VI Internal Revenue Service believed that the waiver of the excise tax is appropriate even though a private contractor is shipping and using materials. OSC informed of appropriate forms and procedures to clear materials and equipment through Customs.

OSC informed ERCS subcontractor (Lyman Brothers) on-island and working on the installation of microwave communications system.

1800 hours, OSC meets with Response Manager and one electrician. Three OHM personnel are staying on St. Thomas and commuting to St. Croix. They were able to find lodging for one electrician on St. Croix, however, hotel does not have electricity, phones or water. All four OHM personnel will stay on St. Thomas tonight and charter plane to commute between islands. OSC will meet OHM at airport at 1800 hours to get update on OHM's search for on-island lodging, rental cars (they are presently using taxi service) and if trailers arrived in port.

OSC gets waybill numbers for trailers and supplies from Edison and informed supplies arrived in St. Croix today at 0700 hours via Navieras de Puerto Rico.

1800 hours, OSC meets OHM at airport prior to their flight to St. Thomas. OHM was not able to find on-island lodging or rental cars and was informed that none of the trailers or supplies have arrived in the port. OHM departs for St. Thomas.

OSC coordinates with Edison Office and ERCS Program Manager and is informed that trailers and supplies are due in St. Croix tomorrow, November 3 at 0700 hours. Edison office has indicated that it may be possible to get hard line phone hook ups and has request letter to VI Telephone Company (VITELCO).

301519

OSC visits site and meets with Kate Wesp, site resident. Informed by Ms. Wesp that two other hurricane homeless

people are living on site with her. OSC asks her if it would be possible to hire SCSE attack dogs to guard trailers and supplies while EPA/OHM is off-site. Ms. Weep has had a falling out with her partner, but still has shares in the business. She was reluctant to have EPA use the attack dogs, but explained that she has never had a trespass/vandalism/robbery problem at the site and would voluntarily look after our equipment and supplies over-night. She felt the site would be safe and secure.

D. November 3, 1989, 0800 hours, OSC goes to Navarre's office at port and was informed that four trailers arrived on Tuesday, October 31.

OSC proceeds to site and meets Lynn Brothers and VITELCO. VITELCO is able to provide two "hard line" connections and Lynn Brothers will lay line through approximately 200 feet of "jungle" in order to reach site.

OSC meets with OHM, clears three trailers through Customs. Decan and equipment trailers are transported from port to site. The third trailer (gally) will arrive on-site tomorrow. The office trailer is missing and unaccounted for.

"Hard line" phones installed and working. Due to the temporary nature of these "hard line" hook-ups, OSC decides to proceed with microwave system since neither is 100% reliable.

OHM departs for St. Thomas at 1800 hours. OHM has found lodging on St. Croix for tomorrow. Since office trailer and other equipment and supplies are due into port tomorrow, OSC decides to mobilize additional ERCS personnel (3 Clean up Techs, 1 laborer, and 1 carpenter).

OSC meets with D. Weston of VIAG at site.

E. November 4, 1989, OSC works with CBP on island on VICHEN press release.

OHM electrician attempts to repair VICHEN's generator. Electric power is intermittent for office area of building.

OSC coordinates with VITELCO and connects microwave hook-up for four lines for microwave system.

Gally trailer moved to site.

OSC informed by D. Weston of VIAG that electric pole on-site has electricity and only needs a hook-up.

F. November 5, 1989, 0800 hours OHM on scene. Unloading of decan and equipment trailers into office area of building. Field Clerk and Cook depart to look for additional rental cars and stock up on food for lunch and liquids. Lynn Brothers on-scene and at microwave station (off-site) working on microwave

system preparation. The microwave station will be set up in a store owned by Santiago Ruiz, Plot 152, since WTRC cannot allow installation on their property.

Steps built for equipment trailer. Water hooked up from on-site hydrant to decon. Pump unit and fire hose set up in drug warehouse. Electrician continues to attempt repair of on-site generator. The voltage regulator for the site generator is not functioning properly, voltage oscillating by 100 volts. 1500 hours OSC conducts overflight of Vichon site. Lynn Brothers arrange for air freight of microwave dish and equipment.

OSC drafts memo for DPNR concerning contingency planning and informational meeting on Vichon site. Request attendance by Police, Fire, BMT, DPNR, VITEMA and Corrections. OSC requests meeting to be scheduled November 7, 8, or 9, prior to curpling and stabilization activities.

G. November 8, 1989, 0800 hours OMM on scene and conducting safety meeting. Microwave system arrives. Carpenter repairing building roof and draining water from ceiling tiles (mosquito control). OSC informed two trailers of overpack drums shipped on November 2.

Due to lack of generators and uncertainty of black out time, OSC considers air freight of a 100 kw generator. Phone working sporadically.

OSC delivers draft contingency meeting memo to DPNR.

Grow using weed whackers to clear vegetation near fence needing repair. Response Manager will check port to see if overpack drums have arrived. Cook reports 15 minute wait to get into Pueblo Grocery store, Grand Union still closed. Since no propane for gally, cook buys charcoal grill for cooking meals.

Microwave dish set up on site and at off site station. North side of fence line cleared of vegetation by ethanol tanks. Continuous air monitoring with explosimeter and low elevated readings during the clearing operation. General G. announced to drop off bottled air cylinders. Carpenter continues to repair ceiling tiles and repair building roof.

Repair of northern portion of perimeter fence by ethanol tanks initiated. Electrician placing electrical wire for trailer connections. OSC approves air freight of 100 kw generator. OSC informed by Edison that EPA personnel working on hurricane damage saw an add that Navieras has a generator and bobcat for rent. OSC sends electrician to port to inquire about these items and check serial numbers to see if these are EPA's. Electrician reports that Navieras knew nothing about the add, generator or bobcat.

301521

OSC informed that two generators, pick up fuel and bobcat

generator is being loaded on ship in San Juan today and due to arrive in St. Croix on Wednesday. OSC cancels airlift of 100 kw generator. Office trailer and overpacks may be available today or tomorrow through TMT (shipper).

On November 7, 1969, OSC accompanies M. Chong of RPB to WAPA to discuss WAPA line supervisor V. Chen electric pole and requests for power hook-up. This power will be good for building air conditioning only. If WAPA power is obtained electrician will install transformer in hot zone to prevent fire hazard. This transformer cannot be used to step down WAPA power (480) for use in generators (220). WAPA requests clearing path to pole so they can bring truck in and check transformers. WAPA will return at 11:00 AM when path is cleared.

OSC receives 55's for 9/12-9/15 and 10/24-11/3. Review of 55's. Propane arrives, however gally propane tanks are empty. Carpenters continue building repairs, including roof. Electrician continues trailer hook-ups. The electrician (phone) demobed from site. TAT has been detailed to work with EPA/TAT on hurricane cleanup. During TAT's first full day on-scene they inventory ERCS equipment and supplies on site. Medic (BMT certified health and safety officer) arrives on-site. ERCS trying to determine how much fuel was shipped to St. Croix.

OSC and Response Manager go to port to check on two trailers containing overpacks and office trailer. Overpack trailers have been moved. Office trailer cleared through Customs and scheduled to be delivered to site tomorrow. No generators, bobcat or pick-up truck.

OSC continues to clear path to utility pole. Porta John arrives on-site. "Hard line" phones working sporadically. WAPA estimates it will take two to three weeks to get electricity to site. ERCS starts clearing vegetation along western portion of perimeter fence needing repair.

Tractor tracks hit arrives on-site. Lab roof repaired. Auger bent while digging fence post hole, spare auger used in place. Soil is extremely hard. Extremely low morale among crew.

On November 8, 1969, again morale among crew is extremely low. No air conditioning at the site, but the hotel where ERCS is staying has no air conditioning and turns off its air conditioning at 2130 hours and the mosquitoes are bad. This situation and the risk of getting malaria has seriously dampened morale.

301522

OSC goes to port with Response Manager, ship with generators, and pick up truck will not be docked until 1900 hours and will not be able to pick up equipment until tomorrow morning.

In order to try to boost crew morale, will instruct Response Manager that after the fence is repaired crew may have the rest of the day off, if they want.

Office trailer arrives on site. Power auger blows engine when digging last post hole. OSC coordinates with Contracts in re attempting to change per diem to actual subsistence for ERCS. Ask Edison office for assistance in this matter. Lyman Brothers hooking up phone system to trailer.

Clean up tech steps on nail while repairing fence. Serious wound, the nail entered forward of the steel shank of work boots. Medic administers first aid injured has had no shot within the last year. Clean up tech voluntarily returns to work. Phones working sporadically.

Generator fence is repaired and two strands of barbed wire installed. Only two clean up techs (including injured) remain to take afternoon off.

Bob picks up voltage regulator for site generator. 1500 volt is just getting in to port. Electrician finds large regulator is broken as shipped, no power.

REMOVAL PLANS AND RECOMMENDATIONS:

Plan to conduct a safe removal action.

1. Situation remains desperate and no generators are available. Will denob crew.

FINANCIAL ACCOUNTING:

A. Total Project Ceiling Authorized	\$ 1,840,000
B. Total Funds Authorized for Mitigation Contracts as of 8/8/88	1,282,000
C. Expenditures for Mitigation Contracts	
a. Amount Obligated to DCN KB3042	250,000
b. Estimated Expenditures as of 11/5/88	149,888
Balance Remaining	100,114
Amount Obligated to DCN KB3088	500,000
Estimated Expenditures as of 301523	-0-
Remaining Balance	500,000
Amount Obligated to DCN KB3073	250,000

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: November 17, 1989

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Eight (8)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VICHem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. Site damage from hurricane Hugo was minor. Portions of the perimeter fence were knocked down. No spills of materials attributed to storm, despite damage to roof of one lab. ERCS contractor (OH Materials) directed to mobilize to site to repair perimeter fence, and if possible, sample, stabilize (overpack), and segregate materials.

2. ACTION TAKEN:

A. November 9, 1989, OSC receives waybills for two generators and bobcat, shipper informed Response Manager that pick-up truck is still in San Juan. OSC and Response Manager go to port to clear Customs and arrange for transport of generators and bobcat from the port to the site. After clearing Customs, OSC and Response Manager accompany transporter to dock and see that the pick-up truck is also at the port. OSC contacts shipper and is given waybill for pick-up truck, and eventually clears Customs with some difficulty. Generators are 10 kw and not 100 kw generators. Apparently, the retailer shipped the wrong size generators, OHM had purchased two 100 kw generators. May be able to supply enough power for the

C. Estimated Expenditures as of	-0-
D. Remaining Balance	250,000
E. Unobligated Balance Remaining	-0-
F. Estimate of Total Expenditures to Date for All Mitigation Contracts	148,888
G. Other Extramural Costs	16,234
H. TAT Salary/Travel as of 11/03/89	
I. Extramural Costs	
J. EPA Salary/Travel as of 11/8/89	15,300
K. Total Expenditures % of \$2 Million	9.1%
L. % of Total Project Ceiling	9.9%

FUTURE
POLREPS
FORTHCOMING ☒ SUBMITTED BY Douglas R. Kodama
Douglas R. Kodama,
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED Nov. 10, 1989

office trailer lighting and air conditioning, but these generators will not supply adequate lighting for inside the warehouse and labs. OSC considers demobing crew.

OHM can airlift a 100 kw generator through American Airlines, however EPA will have to fax American a request since the airline can only airlift emergency relief supplies for private companies.

OSC coordinates with HQ-Contracts attempting to get actual subsistence for ERCS contractor. Contracting Officer and RPB Chief call back OSC and inform him that CO has authorized actual subsistence for ERCS and will send OSC a memo confirming this matter.

The clean-up tech who stepped on a nail yesterday was informed by the local police last night that his wife is in the hospital (no phones available at hotel). This clean-up tech demobed today.

B. November 10, 1989, OSC completes POLREP 7 and gives to TAT for distribution. OHM having difficulty finding a 100 kw generator which will fit on air craft. Generator which does fit inside jet will have to be purchased in Columbus, Ohio and driven to JFK Airport by 0700 hours tomorrow in order reach St. Croix Airport by tomorrow afternoon. Few transporters work over the weekend, so we will have difficulty getting the generator delivered from the airport to the site. Due to the uncertainty that a generator will be airlifted to the site, OSC requests EPA to ask FEMA if EPA can rent, buy or borrow a generator, this appears doubtful since VICHem is a superfund action and not hurricane relief related. OSC goes to Hess and requests a generator from Hess. P. Rubee of Hess will look into it and ask that the OSC return tomorrow since Hess does not have working phones. OSC also asks Mr. Rubee if he thought that Hess may consider recycling some of the materials from the VICHem site. He replied that Hess was not interested.

Stairs built for office trailer. ERCS begins staging of lab reagents and drums. Generators are hooked up for lighting in warehouse (minimal lighting) and office trailer air conditioning. Demand from office trailer is too great and generator works for no more than ten minutes.

OSC informed that two people at the FEMA Disaster Field Office Annex have come down with Dengue Fever. OSC informs medic, Response Manager and TAT. Crew morale drastically affected by this news. Ask ERCS and TAT to research Dengue Fever.

While staging thirty of the drums in the warehouse, two of the drums developed leaks. These drums appeared to be in good condition, but use of a drum cart as opposed to a remote handling drum grapppler, was apparently too much rough handling. ERCS experienced break-through in respiratory protection (Level C). TAT conducted Hot Zone perimeter air monitoring and found seven units on the hnu. All Hot Zone operations cease.

OSC receives the following information on Dengue Fever from TAT: Description-acute, febrile epidemic disease, mosquito transmitted virus. Incubation 3-15 days, usually 5-6 days. Symptoms-seldom fatal, two fever periods with intermission, skin eruptions similar to measles, severe pain in muscles and joints, high temperature, lazy, loss of appetite, diminished urine, irritability. Treatment-no specific treatment, analgesic sedative treatment.

A safe removal action cannot be conducted at this time. Additional equipment and supplies are necessary. Island conditions will have to improve or stabilize.

OSC demobs crew except for Response Manager, Foreman and Field Clerk.

TAT informs OSC that air monitoring show no readings above one unit along the Hot Zone perimeter.

C. November 11, 1989, ERCS secures equipment on-site and posts warning signs on building entrances. OSC goes to Hess and is informed that overnight Hess had two generators stop working. Hess has no extra generators to loan to EPA. OSC informed that 125 kw generator is on American air freight and will arrive at airport this afternoon at 1500 hours. ERCS looks for security firm to guard site while EPA/ERCS are off-site. No security services available on St. Croix. ERCS will look for security guards on St. Thomas, however either no phones or not answering.

ERCS and OSC receive 125 kw generator at airport. Few transporters are available over weekend, so car carry-all is hired. This process takes two hours even though site is less than one mile from airport. Carry-all is also used to transport bobcat from port to site. OSC must clear generator through Customs on Monday.

D. November 12, 1989, OSC picks up Chief, RPB at airport and tours the site with him.

E. November 13, 1989, waybill for generator has not arrived at American air freight office yet. OSC leaves note for other EPA OSCs on island to clear generator through Customs when waybill is available.

OSC flies to Newark, NJ.

F. November 14, 1989, J. Rotola clears generator through Customs. OSC had previously decided to leave the trailers containing drum overpacks at the port until ERCS is remobilized to the site. The monthly rental charge for these trailers is minor, the port may be more secure than the site, and we may use trailers to store drums when they arrive on-site.

ERCS informs OSC that they have found a security service on Puerto Rico. This service will cost \$4000-\$5000 per week for a 24

hour guard service. It is the OSC's opinion that this guard service is too costly, will have minimal impact on security (may make the site less secure) and is not necessary. Chief, RPB concurs with this rational. Security measures will involve regular visits to the site by EPA, TAT and possibly DPNR.

TAT distributes Polrep 7.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. Deliver all remaining medical supplies, electrical supplies drum over packs and sorbents to the site.

B. Remobilization for sampling, segregation and stabilization activities tentatively scheduled for January, 1990.

4. FINANCIAL ACCOUNTING:

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 11/12/89

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	28,178	471,822
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$278,178	\$983,822
Other Costs			
TAT Salary\Travel as of 11/03/89		16,234	
EPA Salary\Travel as of 11/17/89		22,576	
Estimate of Total Expenditures to Date		\$316,988	

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
17%	22%	11%	15%

PERCENTAGE OF \$2 MILLION

16%

FINAL POLREP FUTURE POLREPS FORTHCOMING ☒ SUBMITTED BY Douglas R. Kodama
 Douglas R. Kodama,
 On-Scene Coordinator
 Response and
 Prevention Branch

DATE RELEASED Nov. 17, 1989

301529

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: January 10, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
E. Schaaf, EPA
ERD, Washington,
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Geiabert, EPA
A. Smith, VIDPNR
LEPC, VIDPNR
TAT

POLREP NO.: Nine (9)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. Site conditions remain the same.

2. ACTION TAKEN:

A. December 5, 1989, OSC certifies Invoice 001.

B. January 8, 1990, EPA, TAT and OH Materials travel to St. Croix.

C. January 9, 1990, OH Materials, EPA, TAT mobilized on site for the first phase of the VI Chem removal. Two trailers containing overpack drums cleared through customs.

D. Phone service was returned to the site along with electrical service via the use of an on-site generator.

E. A contingency planning meeting was held on January 10, 1990, with the local government agencies to inform them of the removal action being taken at VI Chem. Site visit by local responders scheduled for January 11, 1990.

F. A public notice will be placed in the Daily New newspaper as soon as possible informing the public of the VI Chem removal action. The administrative record was placed in the DPNR office on St. Croix for public access.

G. Additional OH Materials personnel were mobilized to the site on January 10, 1990.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. The overpacked drums will be delivered to the site from the port authority on January 11, 1990.

B. TAT will sample public wells in area to determine if there is a change in the level of chloroform contamination.

C. Sampling and stabilization will commence as soon as mobilization is complete. Anticipate starting on Friday, January 12, 1990.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING

C. COSTS & BALANCES as of 1/10/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	53,304	446,696
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000

SUBTOTAL	\$1,262,000	\$303,304	\$958,696

OTHER COSTS

TAT Salary\Travel as of 1/5/90	26,786
EPA Salary\Travel as of 1/10/90	<u>24,576</u>

Estimate of Total

Expenditures to Date	\$354,666

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
19%	24%	12%	26%

PERCENTAGE OF \$2 MILLION

18%

FURTHER
POLREPS
FINAL POLREP _____ FORTHCOMINGXSUBMITTED BY Bruce Hodgman (R)
Douglas R. Rodama
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED

1/19/90

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: January 13, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
E. Schaaf, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Ten (10)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. St. Croix Security Kennels have removed their dogs from the site. There is currently only one on-site resident, hired by VIAG for site security. Site conditions remain the same.

2. ACTION TAKEN:

A. January 11, 1990, two additional phone lines were installed, received and unloaded two trailers containing overpack drums, cook trailer brought on-line, additional crew mobilized to site bringing total crew to twelve. The microwave phone system was demobed due to lack of a functioning phone line at the relay station. Approximately 200 feet of phone line was stolen at this location affecting not only the relay station, but at least 30 residences upstream from the break in the phone line.

301533

A bull wandered onto the site and was chased off by the owner.

DPNR, Fire Marshall, and EMS visited the site. OSC and Health and Safety Officer visited the St. Croix Hospital. Hospital will not be rebuilt until July, 1991 at the earliest. EMS encouraged OSC to make own arrangements for airlifting injured personnel to San Juan.

OSC contacted USCG-MSO San Juan and requested USCG Search and Rescue to be on standby for airlifting site personnel to San Juan Medical Central. OSC was informed that the response time to St. Croix was at least one hour. OSC offered the opportunity for USCG to visit the site and observe clean-up operations.

B. January 12, 1990: information was gathered from labels of lab reagents and drums, drums were numbered, initiated packaging and overpacking of bagged and drummed material, two additional unknown cylinders were discovered near dog kennels. OSC coordinated with VIAG. One electrician demobed bringing total crew to eleven.

C. January 13, 1990: 69 drums were overpacked, inventory of lab reagents continued, drum grapppler repaired with on-site welding equipment, caps of unknown cylinders were removed and photographed. Photos will be mailed to cylinder specialists for possible identification. Air monitoring in labs and warehouse showed some elevated readings during clean-up activities. EPA coordinated with the Deputy Chief of Public Safety, to notify the Golden Grove Correctional Facility when site activities are concluded for the day; this will be done daily.

D. A public notice will be placed in the Daily News newspaper on January 16, 1990 informing the public of the VI Chem removal action. The administrative record was placed in the DPNR office on St. Croix. If necessary a copy of the Administrative Record will be placed in the DPNR office on St. Thomas.

3. FUTURE PLANS AND RECOMMENDATIONS

A. TAT will sample public wells in area to determine if there is a change in the level of chloroform contamination.

B. Sampling and stabilization may be completed by January 26, 1990.

4. FINANCIAL ACCOUNTING:

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 1/12/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	91,482	408,518
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000

Subtotal	\$1,262,000	\$341,482	\$920,518

Other Costs

TAT Salary\Travel as of 1/12/90	43,932
EPA Salary\Travel as of 1/13/90	25,776

Estimate of Total Expenditures to Date	\$411,190

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
22%	27%	13%	42%

PERCENTAGE OF \$2 MILLION

21%

FUTURE
POLREPS
FINAL POLREP _____ FORTHCOMING X SUBMITTED BY

Douglas R. Kodama
Douglas R. Kodama,
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED 1/15/90
U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

301535

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: January 16, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
E. Schaaf, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Eleven (11)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: 800 Lab Chemicals, 400 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. Site conditions remain the same.

2. ACTION TAKEN:

A. January 14, 1990, 96 drums overpacked to date, samples collected from 21 drums, unknown lab reagents temporarily secured on-site, known lab reagents secured in drums with sorbent, options explored for sampling of drum containing potentially shock-sensitive tetrahydrofuran, one additional cylinder found on-site.

B. January 15, 1990, label information gathered from all cylinders. Inspection of reactor tower revealed a minor amount of residual product in these vessels. This material will be removed. Gathering of outdoor drums/containers was initiated, 52 drums sampled (73 to date), securing of known lab reagents

301536

completed, and inventory of unknown lab reagents completed. Sample techs experienced skin irritation (protective clothing breakthrough) while sampling benzylchloride drums and flammable vapors present from sampling triethylamine. Hot Zone was evacuated until ventilation reduced to safe levels. A public notice was published in the Virgin Islands Daily News newspaper informing the public of the VI Chem removal action. OSC coordinated with VIAG.

C. January 16, 1990, gathering, documentation and overpacking of outdoor drums completed, 10 drums sampled (83 to date). OHM had a car stolen the night of January 15/16. TAT previously had a car stolen the night of January 7/8. OSC reviewed options for sampling of unknown lab reagents, on-site treatment of shock-sensitive materials, and known and unknown cylinders. Breathing air in short supply and it may be difficult obtaining additional air. TAT sampled WAPA public wells in area to determine if there is a change in the level of chloroform contamination. The on-site well was sampled for priority pollutant and bacteriological analyses. Two wells owned by the Virgin Island Port Authority could not be sampled because power had not been restored to the pump.

3. FUTURE PLANS AND RECOMMENDATIONS

A. One chemist will be demobed on January 18, 1990 bringing total crew to ten.

B. Unknown lab reagents are scheduled to be remotely opened on January 22, 1990.

C. Drum sampling, sample shipment, and analytical arrangements will be completed.

D. TAT will conduct asbestos sampling of material on the reactor and bulk material.

4. FINANCIAL ACCOUNTING:

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 1/16/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	123,800	376,200
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$373,800	\$888,200
Other Costs			
TAT Salary\Travel as of 1/12/90		43,932	
EPA Salary\Travel as of 1/16/90		26,976	
Estimate of Total Expenditures to Date		\$444,708	

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
24%	30%	13%	42%

PERCENTAGE OF \$2 MILLION

22%

FINAL POLREP FUTURE POLREPS FORTHCOMING X SUBMITTED BY John Higgins
 Spr Douglas R. Kodama,
 On-Scene Coordinator
 Response and
 Prevention Branch

DATE RELEASED

January 16, 1990

301538

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: January 19, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
E. Schaaf, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Twelve (12)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Reagents, 210 Drums, 22 Tanks
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. Site conditions remain the same.

2. ACTION TAKEN:

A. January 17, 1990, arrangements were made with the Department of Public Safety and the Virgin Islands Police Department to utilize police issued .22 caliber rifles for remote opening of unknown lab reagents on site. A police representative will notify the prison officials and remain on site during the activity.

Continued overpacking drums; 37 drums were sampled and 120 drums have been sampled to date. EPA coordinated with VITEMA and USCG. Cylinder specialist, believes that the two unknown

301539

cylinders are probably inert gases.

The Department of Public Safety will also provide information on the procedures and permits necessary to obtain explosives on the island for detonating the unknown cylinders and shock-sensitive materials on site.

B. January 18, 1990, two representatives from the U.S. Coast Guard Marine Safety Office in San Juan, Puerto Rico mobilized on site for observing a hazardous waste site and clean-up. The two were given a tour of the hot zone and removal actions utilizing level "B" personal protective equipment. One chemist was demobed, total crew now stands at ten; EPA coordinated with USCG, VITEMA and Public Safety. 17 drums sampled (137 to date).

C. January 19, 1990, results from the bacteria sample analysis of the on-site 250,000 gallon water storage tank indicated severe coliform infestation of the water poses a significant health risk. All personnel on-site were warned not to use the water.

Containerization of lab reagents has been completed. A total of 10 drums were filled. Two cabinets are being used for storage of reactive and shock-sensitive materials until such time as they can be detonated. Unknown lab reagents are stored on shelves until they can be remotely opened.

Drum sampling and overpacking has been completed. A total of 174 drums have been sampled. Device fabricated for collection of liquid and solid unknown lab reagents, during the remote opening of these containers utilizes a .22 caliber rifle. Remote opening of these containers scheduled for 1/22/90, TAT informed neighboring businesses of this activity, EPA coordinated with on-site resident, VITEMA and Public Safety.

3. FUTURE PLANS AND RECOMMENDATIONS

A. Unknown lab reagents are scheduled to be remotely opened on January 22, 1990

B. Sample shipments and analytical arrangements will be completed.

C. On site storage tanks will be sampled.

D. TAT will conduct asbestos sampling of material on the reactor and bulk material. Virgin Island Port Authority wells will be sampled once power to them has been restored.

E. ERCS contractor will be demobed from the site until analytical results are obtained, disposal options are addressed and phase two is initiated.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 1/19/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	147,838	352,162
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$397,838	\$864,162
Other Costs			
TAT Salary\Travel as of 1/19/90		51,305	
EPA Salary\Travel as of 1/19/90		28,476	
Estimate of Total Expenditures to Date		\$477,619	

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
26%	32%	14%	49%

PERCENTAGE OF \$2 MILLION

24%

FUTURE
POLREPS
FINAL POLREP _____ FORTHCOMING ☒ SUBMITTED BY Douglas R. Kodama
Douglas R. Kodama,
On-Scene Coordinator
Response and
Prevention Branch

301541

DATE RELEASED Jan. 22, 1990

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: January 23, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Thirteen (13)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 210 Drums, 240 Empty
Drums, and 22 Tanks. Possibly Asbestos and
Dioxin Containing Materials
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

A. Drum sampling and stabilization have been completed.

2. ACTION TAKEN:

A. January 20, 1990, sampling of all tanks and reactor vessels completed, QA/QC of samples and drum logs, general clean up of warehouse area completed, list of chemicals needing dioxin analyses provided by OHM. Three five gallon containers of potentially dioxin contaminated material sampled. Three bids for analytical work provided by OHM, low bid, ETC labs will be used. Decon trailer's water tank chlorinated. Equipment serviced.

B. January 21, 1990, device for collection of unknown lab reagents completed, all drums in warehouse restaged and placed on pallets, warehouse floor cleaned, completed sampling of spent personnel protective clothing and paints, initiated documentation

for shipment of samples.

C. January 22, 1990, OSC coordinated with VI Police Department and informed of proper procedures for shipment of explosives to St. Croix. VI Police Department also provided two .22 caliber rifles for the remote opening of unknown lab reagents.

Remote opening of unknown containers successfully completed. Paints secured in drums on-site. Most samples packaged and prepared for shipment. General site clean up conducted.

D. January 23, 1990, bulked, unknown lab reagents solidified, sampled and secured in three drums in warehouse. Shipment of samples initiated. Initiate final clean up activities and securing of site.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. Finalize shipment of all samples.

B. TAT will conduct asbestos sampling of material on the reactor tower and bulk material. Virgin Island Port Authority wells will be sampled once power to them has been restored.

C. OSC through DPNR will inform applicable local agencies of the completion of this phase of the removal action. List of chemicals, their location on-site and a video tape of this phase will be distributed to these agencies in the near future.

D. Analytical, transportation and disposal coordination.

E. Demob for this phase.

F. In approximately two months, on-site detonation of shock-sensitive, explosive materials, off-site (on-island) detonation of known and unknown cylinders, crushing of empty drums, and if appropriate treatment of dioxin-containing materials.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING 301543 \$0

C. COSTS & BALANCES as of 1/22/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	166,019	333,981
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000

Subtotal	\$1,262,000	\$416,019	\$845,981
Other Costs			
TAT Salary\Travel as of 1/19/90		51,305	
EPA Salary\Travel as of 1/23/90		29,113	

Estimate of Total Expenditures to Date	\$496,437

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
27%	33%	15%	49%

PERCENTAGE OF \$2 MILLION

25%

FUTURE
 POLREPS
 FINAL POLREP _____ FORTHCOMING ☒ SUBMITTED BY Douglas R. Kodama
 Douglas R. Kodama,
 On-Scene Coordinator
 Response and
 Prevention Branch

DATE RELEASED 1/23/90

Schaaf
MAY 24 1990

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: May 18, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
E. Schaaf, EPA
ERD, WH-548B,
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC, VIDPNR
TAT

POLREP NO.: Fourteen (14)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VICHem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 210 Drums, 240 Empty
Drums, and 22 Tanks.
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Emergency Response to a report of a fuming drum.

2. ACTION TAKEN:

A. May 9, 1990, 4 TAT personnel and Adalberto Bosque of the EPA Caribbean Field Office arrived on-site in Emergency Response to a report of a fuming drum. TAT suited up in Level B with SCBA's to assess the situation. The fuming drum, Drum No. 29, was found in the rear of the warehouse. After Edison EPA was informed that the drum was still fuming and that drum was in a bulging condition, EPA decided to mobilize the ERCS contractor.

B. May 10, 1990, two ERCS contractors arrived on site and one TAT was demobilized. ERCS made an entry along with TAT and EPA in Level B. The ERCS contractor loosened the lid of the overpack in order to dissipate the pressure build-up, exited Hot Zone, conducted literature search for benzyl chloride, initiated plans to transfer chemical, made a request for shipment of necessary

301545

equipment (i.e., poly overpack drums, Level A PPE, teflon pump). Benzyl chloride is a corrosive liquid and a severe skin irritant. An incident involving sampling of benzyl chloride drums during Phase I at VIChem occurred on January 15, 1990 and is documented in POLREP # 11. In the previous incident, sample techs experienced skin irritation while sampling benzyl chloride drums, the Hot Zone was evacuated until safe air levels were reached, and the OSC decided that it was not necessary to continue sampling of benzyl chloride drums.

C. May 11, 1990, two additional ERCS contractors arrived for a total of four ERCS on site. Equipment was picked up at the airport. ERCS contractor is delayed due to condensation build-up inside the drums during shipment. Two ERCS in Level A suits on an air line entered the Hot Zone. Two TAT and the EPA representative entered in Level B with SCBA's. Three men were on backup. Level B personnel didn't handle the drums. The fuming drum was found to have a bung not in the bung hole but off to one side sitting on the top of the inner-drum. Apparently, benzyl chloride reacted with moisture in the air to form hydrochloric acid fumes. Except for the un-secured bung, the inner-drum was assessed to be in good condition. ERCS secured the bung and used lime based cement as an absorbent/neutralizer.

D. May 12, 1990, ERCS contractor performed a site clean-up before demobilizing. The site electric generator was in operation during the day.

E. Other site activities during emergency response

While on-site during the emergency response, ERCS contractor had their ordinance specialist assess site for the on-site detonation of shock-sensitive materials that is planned for June 1990. A suitable on-site area was located. Also, ERCS noted that the EPA phones, which are in the office trailer, were not in service and that an ERCS 12,000 gallon waste treatment pool was missing.

F. Other activities

- February 2, 1990, OSC received a call from Dave Weston of VIAG. He said that a stranger was on the site during the past three days claiming that he was providing security for EPA. Dave told him to leave site yesterday but noticed today that hand tools, lawn mower, etc. are missing. Dave got the license plate number of the stranger's white Chevrolet pickup and he will follow up on this.
- March 2, 1990, OSC updated Paul Simon of ORC on status of Removal Action and on March 5, 1990 the OSC mailed him a complete set of Polreps (nos. 1-13).
- March 5, 1990, OSC reviewed analytical results collected from materials potentially containing asbestos. None of the insulation on the reactor tower or bulk material with hand-

written asbestos labels had any detectable levels of asbestos. They all were comprised of a cellulose-type material.

- April 11, 1990, due to the significantly increased SPCC activities associated with recent oil spills, OSC duties were transferred, with branch chief approval, to the former AOSC, John Higgins, and the former OSC, Doug Kodama, assumed the AOSC position.
- April 24, 1990, separate letters were sent to Commissioner Smith, members of the VI Local Emergency Planning Committee, and VITEMA updating them on the Removal Action status and plan for Phase II. List of chemicals, their location on-site and a video tape of Phase I were distributed to these agencies.
- April 26, 1990, OSC letter was transmitted to Commissioner Smith requesting VIDPNR approval for use of the Anguilla landfill, or an alternate site, for detonation of cylinders containing both known and unknown hazardous substances.
- May 1, 1990, the AOSC received a call from Jim Sutherland of VIAG. He complained that EPA conducted a very shoddy job, cut electric lines, blew up phone junction box, interfered with their business, is storing additional hazardous waste on site. AOSC disagreed with his statements. He stated that VIAG will seek compensation. He also stated that he wants the equipment trailer to be moved next to the decon trailer. The AOSC agreed that this could be done during Phase II.
- May 15 & 16, 1990, OSC met with TAT in Edison and discussed the chemical analytical data on water samples collected from the on-site water tank and Fairfield Wells Nos 1 & 2. TAT was instructed to provide summary tables and a narrative summary on the quality of the data to the OSC by May 25, 1990. Based on these discussions, the data is of good quality and indicates no exceedances of Drinking Water Maximum Contaminant Levels. However, since sample collection was both incomplete (WAPA wells were not sampled because they were not operating) and perhaps not representative (Fairfield well pumps had been inactive, as a result of Hurricane "Hugo", and were just turned on the morning of sampling), additional well sampling will be conducted during Phase II.
- May 16, 1990, OSC discussed Phase II plans with Jeff Bodi of ERCS and instructed that a workplan be submitted for this work by May 25, 1990. Also, we discussed whether ERCS had any responsibility for the fuming drum and whether ERCS should absorb some of these costs. The OSC will discuss matter with AOSC, TAT, and the contract DPO prior to concluding the matter.
- May 15 & 18, 1990, OSC discussed the status of the Removal Action with ORC Attorney Carol Burns, who was recently assigned VICHem. She informed OSC that ORC is proceeding with placing a lien on the VICHem property. I faxed her a copy of this POLREP on May 18.

3. FUTURE PLANS AND RECOMMENDATIONS:

- A. ERCS completes lab pack, paint waste, and empty drum disposal arrangements as soon as possible.
- B. ERCS develops Phase II workplan by May 25, 1990.
- C. TAT completes Phase I drinking water data summary by May 25, 1990.
- D. TAT completes Phase II field sampling plan by May 25, 1990.
- E. ERCS must have all supplies and equipment necessary for Phase II shipped to St. Croix via Tropical Inc. in Miami by May 29, 1990.
- F. Mobilization for Phase II is scheduled for June 11, 1990. Phase II will consist the off-site detonation of cylinders, the on-site detonation of shock-sensitive lab reagents, crushing of empty drums, and the disposal of lab packs, paint waste materials and empty drums at a mainland hazardous waste incinerator.
- G. The OSC will prepare an Action Memo requesting additional monies and a twelve month time limit extension for the completion of VICHem.
- H. Drum compositing scheme for waste incineration analysis must be finalized by ERCS, approved by EPA, waste analysis conducted, and drum disposal arrangements finalized for actual drum disposal in Phase III, which is planned for the autumn of 1990.
- I. The OSC will review the results of the dioxin data analyzed from the three five (5) gallon containers.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 4/24/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	268,049	231,951
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$518,049	\$743,951
Other Costs			
TAT Salary\Travel as of 1/12/90		43,932	
EPA Salary\Travel as of 5/18/90		40,630	
Estimate of Total Expenditures to Date		\$602,611	

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
33%	41%	20%	42%

PERCENTAGE OF \$2 MILLION

30%

FINAL POLREP FURTHER POLREPS FORTHCOMING X SUBMITTED BY John Higgins

John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED May 18, 1990

Boris

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: June 13, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA

W. Muszynski, EPA
S. Luftig, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
ERD, WH-5488
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Fifteen (15)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VICHem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 366 Known Lab Chemicals, 390
Unknown Lab Chemicals, 210 Drums, 240 Empty
Drums, and 22 Tanks. Possibly Asbestos and
Dioxin Containing Materials
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Initiation of Phase II Removal. See previous polreps for Phase I details.

2. ACTION TAKEN:

A. June 5, 1990, OSC discussed bids for waste analysis of composite drum samples with ERCS and Rick Haworth, Region 1 OSC. Based on the discussions the OSC directed ERCS to contract with the second low bidder, "Analab", for disposal analysis.

B. June 7, 1990, as requested, AOSC transmitted memo to Regional Administrator Sidamon-Eristoff that furnished detail on the May 1, 1990 phone conversation between the AOSC and Jim Southerland of VIAG.

C. June 11, 1990, all personnel arrived on St. Croix. OSC and TAT visited site and spoke to Andy with Infinity Services, who is a sub-leasee of a portion of the warehouse. Infinity Services was informed that they could not access the hot zone during clean-up activities.

D. June 12, 1990, OSC discussed clean-up status and plans with Jim Southerland of VIAG. He reiterated his complaints, which are documented in POLREP#14 and in the June 7, 1990, memo from the AOSC to the Regional Administrator. However, he was calm and agreed that EPA and ERCS could utilize space for storage of equipment and supplies in the warehouse. He also agreed that EPA could use his phone to make credit card calls.

EPA, TAT and ERCS (7) mobilized on site. ERCS started site set-up and reported a set of aluminum steps stolen from the galley trailer. In addition, phone lines to the command post were cut. VITELCO was notified and indicated that phone service may be restored at the end of the week.

EPA and TAT met with Dave Canegata, Assistant Commissioner of DPNR to discuss cylinder detonation. In addition, EPA and TAT met with Delroy Richards, Chief of the Department of Public Safety to request police assistance with the detonation. Police agreed to accompany detonation convoy from site with two police cars and to seal off landfill from public during operations. TAT also met with Fire Marshall Cyprian King to request a fire truck and EMS service for the detonation.

E. June 13, 1990, site set-up continues. ERCS mobilized five (5) personnel on site and demobilized one (1) personnel. A chemist from Chem Waste arrived on site to supervise the lab pack operation. Breathing-air and a port-a-john were delivered to the site.

EPA and TAT held a Contingency Meeting with the following agencies: DPNR, VI Fire, Bureau of Corrections, Department of Health, ERCS. In addition EPA, TAT, ERCS and two representatives from DPNR visited the detonation site (Anguilla landfill).

WAPA and VIPA were notified by TAT that the Fairplain wells #6 and #9; and VIPA wells #1 and #2 will be sampled for halogenated hydrocarbons.

A press release will be placed in the Daily News newspaper on Friday June 15, 1990 informing the public of the temporary road and landfill closing during the detonation activity.

ERCS began re-staging the overpacked drums according to their compatibility classes delineated by the analytical results.

ERCS restored phone service to the command post.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. TAT will prepare minutes of June 13, 1990 Contingency Planning Meeting.

B. Detonation of shock sensitives and of cylinders off-site at landfill on Saturday morning June 16, 1990 in accordance with the Ordinance Plan.

C. TAT will provide all necessary notifications regarding the detonation, including St. Croix Prison, Police, Fire, EMS, DPW St. Croix STP, Alexander Hamilton Airport, FAA, and businesses near the airport and landfill. Also, TAT will notify the NRC of the environmental release within one hour after final detonation. TAT will also conduct air monitoring.

D. ERCS and Chem Waste will initiate labpacking on June 14, 1990; ERCS equipment and supplies will be delivered on June 14, 1990.

E. Drum crushing will be initiated the week of June 18, 1990. The sixteen drums containing Benzyl chloride will be transferred to poly 55 gallon closed-top drums and overpacked inside 85 gallon drums.

F. The OSC will review the results of the dioxin data analyzed from the three five (5) gallon containers.

G. TAT will perform sampling of the WAPA and VIPA wells.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 6/13/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	327,999	172,001
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$577,999	\$684,001
Other Costs			
TAT Salary\Travel as of 6/13/90		58,326	
EPA Salary\Travel as of 6/13/90		46,097	

Estimate of Total
Expenditures to Date \$682,422

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
37%	46%	23%	56%

PERCENTAGE OF \$2 MILLION

34%

FINAL POLREP _____ FUTURE
POLREPS _____ FORTHCOMING ☒ SUBMITTED BY John Higgins
John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED June 13, 1990

301553

Bills

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: June 16, 1990

Region II
 Response and Prevention Branch
 Edison, New Jersey 08837
 (201) 548-8730- Commercial and FTS
 24 Hour Emergency

TO: C. Sidamon-Eristoff,
 EPA

W. Muszynski, EPA
 S. Luftig, EPA
 R. Salkie, EPA
 J. Marshall, EPA
 G. Pavlou, EPA
 ERD, WH-548B
 (E-Mail)

B. Sprague, EPA
 G. Zachos, EPA
 P. Gelabert, EPA
 A. Smith, VIDPNR
 LCPC
 TAT

POLREP NO.: Sixteen (16)
 SITE NO.: 4V
 POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
 CLASSIFICATION: Major
 SOURCE: Virgin Island Chemical Company (VChem)
 LOCATION: St. Croix, US Virgin Islands
 AMOUNT: Approximately 500 Known Lab Chemicals, 390
 Unknown Lab Chemicals, 210 Drums, 240 Empty
 Drums, and 22 Tanks. Possibly Asbestos and
 Dioxin Containing Materials-
 WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Phase II Removal Action continues.

2. ACTION TAKEN:

A. June 14, 1990, ERCS continues labpacking and drum segregation. Box trailer with ERCS supplies was delivered to the site from the ship container port. Also, airport containers with ERCS equipment were delivered to the site and were unloaded.

TAT speaks to Dave Canegata (DPNR) about a press release informing the public of the detonation and obtains Mr. Canegata's approval to release the notification.

TAT investigates a well drilling operation on the east side of the

VI Chem site near the WAPA Fairbairn Well #6. U.S. Geologic Survey was installing eight (8) observation wells as part of a series of ground water flow-monitoring wells in the brackish aquifer.

Todd Shank of DPNR stops by the site to inform EPA that the Dept. of Public Works (DPW) is hesitant about the detonation taking place at the landfill.

ERCS explosive expert arrives on site. EPA, TAT and explosive expert visit detonation site.

ERCS inform EPA of problems transporting cylinders and shock sensitives from VI Chem to landfill. ERCS requests a waiver of RCRA transportation regulations and not to hold ERCS harmless if something goes wrong during transport.

EPA informed ERCS that the National Contingency Plan (NCP) allows EPA to transport hazardous materials in emergency situations. If challenged, EPA would exhibit credentials, however, it is unlikely for EPA to be challenged since the Police Dept. and DPNR are a part of the exercise. EPA informed ERCS that DSC did not have authority to write the requested hold-harmless waiver. Subsequent consultations with ERCS and EPA contract officials revealed that ERCS is covered by liability insurance.

EPA faxed January well sampling data summary to Susan Shaw of EPA's Region 2 Water Management Division (WMD).

At WMD request, EPA directed TAT to investigate the Texaco gasoline station on Centerline Rd. east of Frederiksted to observe if well digging was going on. TAT reported no activity at that station and no activity at the other two Texaco stations nearby Frederiksted.

EPA, TAT and ERCS have a meeting to discuss detonation operations.

B. June 15, 1990, press release notifying the public of detonation was not in the Virgin Island Daily News newspaper.

Explosive expert and TAT visit with Fire Chief Cyprian King to give details about detonation for June 16, 1990.

ERCS continues to lab pack and segregate drums.

TAT, EPA and DPNR meet with several DPW officials and receive approvals from Mr. Slater, landfill supervisor, and Mr. Hanson, sewerage treatment plant supervisor, contingent upon the approval of the acting DPW Commissioner, who is on travel in St. Thomas. Mr. Canegata of DPNR subsequently informs EPA that DPW approval for detonation at the landfill was received.

TAT called Delroy Richards, Chief of Public Safety and gave details of the detonation.

Cyprian King, of the VI Fire Dept., delivered the explosives permit to ERCS on the VI Chem site.

ERCS informs EPA of problems with transporting explosives to the island. Detonators and perforator charges are still in Texas. They will not arrive until Monday. When questioned, ERCS stated that the transporter verbally confirmed on Tuesday, June 12, 1990, that the shipment had been transported. Another shipment of explosives is on the island stored at the quarry locked up and the owner is on Puerto Rico until next week. Numerous attempts to expedite matters failed.

EPA and TAT contact all necessary agencies to inform them of the postponement of the detonation and to schedule a Contingency Planning Meeting at DPNR offices for 10:00 AM Tuesday, June 19, 1990. EPA informed ERCS that there will be no work on Sunday.

EPA questioned ERCS about the status of the drum crush operator and equipment. ERCS did not know when equipment would arrive.

ERCS informed EPA that their (ERCS) lab (ETC) made a mistake and used all of the samples from the acid liquid compatibility grouping and that additional sampling was needed. Also, samples from drum numbers 132 and 136 generated reactions (ie. elevated temperatures and gas evolution). From drum markings, it is suspected that these drums contain Muriatic acid and Hydrochloric acid and should be included in a separate waste stream. ERCS wanted to know if it was okay to composite samples on site. EPA informed ERCS that packaging and compositing of sample from the acid liquid group would be at ERCS expense and that on site compositing of sample was inappropriate due to lack of adequate laboratory facilities.

Explosive expert will work as a laborer and be billed accordingly until detonation is back on track.

C. June 16, 1990, the Daily News newspaper released an article informing the public of the postponed detonation. In addition, the Daily News mentioned that there was no news release notifying the public of the proposed detonation. However, the article did not mention that this omission was due to their failure to print the public notice furnished to them by TAT on June 14, 1990.

ERCS finishes labpacking work and continues overpacking. A drum (#B1) of Benzyl acetate mixed with Acetic acid (glacial) which is a flammable organic acid and is the only drum in a single waste stream. If the drum cannot be neutralized or diluted to a non-flashpoint condition, disposal analysis and transportation cost will approximate \$8500, as it may require its own SeaLand container. A bench scale experiment was performed. A small portion of the Benzyl acetate and Acetic acid mix was diluted with water to see if the two would separate (Benzyl acetate insoluble in water and Acetic acid soluble in water). Results were inconclusive. It is decided to ship the stock quart sample to ETC for bench scale

testing to required dilution. Final determination of how to handle drum number 81 will be made prior to Phase III.

ERCS starts and completes packaging of additional sample stock needed for disposal analysis and disposal.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. On June 19, 1990, there will be a Contingency Planning Meeting.

B. Remainder of explosives are to arrive on St. Croix, June 18, 1990.

C. Detonation of shock sensitives and cylinders off-site at landfill will be rescheduled during the Contingency Planning Meeting

D. TAT will provide all necessary notifications regarding the detonation, including St. Croix Prison, Police, Fire, EMS, DPW St. Croix STP, Alexander Hamilton Airport, FAA, and businesses near the airport and landfill. Also, TAT will notify the NRC of the environmental release within one hour after final detonation. TAT will also conduct air monitoring.

E. Drum crushing will be initiated the week of June 18, 1990. The sixteen drums containing Benzyl chloride will be transferred to poly 55 gallon closed-top drums and overpacked inside 85 gallon drums.

F. The DSC will review the results of the dioxin data analyzed from the three five (5) gallon containers.

G. TAT will perform sampling of the WAPA and VIPA wells nearest the site.

1. FINANCIAL ACCOUNTING:

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 6/16/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	375,081	124,919
KE3073	250,000	0	250,000
KED006	262,000	0	262,000
Subtotal	\$1,262,000	\$625,081	\$636,919
Other Costs			
TAT Salary\Travel as of 6/16/90		63,366	
EPA Salary\Travel as of 6/16/90		48,097	

Estimate of Total Expenditures to Date \$736,544

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
40%	50%	24%	60%

PERCENTAGE OF \$2 MILLION

37%

FINAL POLREP FUTURE POLREPS FORTHCOMING X SUBMITTED BY John Higgins
John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED June 16, 1990

301558

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U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: June 20, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff,
EPA

W. Muszynski, EPA
R. Caspi, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA

ERD, WH-548B
(E-Mail)

B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Seventeen (17)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 210 Drums, 240 Empty
Drums, and 22 Tanks. Possibly Asbestos and
Dioxin Containing Materials
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Phase II Removal Action continues.

2. ACTION TAKEN:

A. June 18, 1990, ERCS mobilized a subcontractor (drum crush operator) on site and continued overpacking. Initiated and completed labpacking, waste paint inventory and drum segregation. An air freight container was delivered to the site.

ERCS resampled drum numbers 81, 163 and 164 for disposal analysis and waste stream. This was the only additional drum sampling

conducted in Phase II.

ERCS will manifest, with material safety data sheets (MSDS), the drums containing Benzyl chloride as a separate waste stream. ERCS indicated that the Benzyl chloride may have to be put in one gallon charges. It was then decided that the Benzyl chloride will not be repacked until it is known how Chem Waste and other disposal facilities will accept the Benzyl chloride. This may not be known until completion of Phase II. In addition, EPA directed ERCS to contact "Velsicol", the manufacturer, as to returning the drums of Benzyl chloride, which have manufacturer seals.

Cyprian King, Fire Chief re-certified the explosive permit.

EPA contacted the following : Jet Research in Dallas, Arrow and Four Star, both in San Juan, several times and successfully arranged for explosives to be delivered to St. Croix at 1330 hours. Explosives arrived at 1400 hours and were cleared through Customs by EPA and ERCS.

ERCS informed EPA that drum crushing equipment is in Port Elizabeth, NJ. EPA was informed that equipment would be in St. Croix at 1400 hours on June 19, 1990.

EPA apprised ERCS that they (ERCS) and their subcontractors have managed equipment and supply delivery inadequately. It took an extended effort by EPA to get the explosives in St. Croix.

EPA faxed and received back a fax of release form for transmittal of Uranyl acetate and Mercury (metallic) compounds to Poly Sciences, Inc. a recycling/reusing facility.

B. June 19, 1990, EPA, TAT, DPNR and ERCS attended a Contingency Planning Meeting to set a new date for the detonation.

EPA, TAT and ERCS meet with the Deputy Commissioner of DPW to schedule a new date for the detonation.

ERCS sampled drum numbers 81, 163 and 164. ERCS also overpacked the spent wet cell batteries on site. In addition, ERCS completed labeling of labpacks.

ERCS informed EPA that there is a problem with a five (5) gallon can of asbestos and mineral spirits (flashing cement). This roofing material (mineral spirits) cannot be landfilled and cannot be incinerated. Dave Martin, of Chem Waste attempted to see if Chem Waste would accept the material. A material profile was sent.

ERCS informed EPA that they are "uncomfortable" shipping a glass container of Mercury (metallic) to Poly Sciences, Inc. ERCS stated that they would prefer shipping the material in a welded steel conical container, which is the single package specification for air shipment of Mercury for DOT and International Air Transport

Association (IATA) regulations. EPA indicated that this would entail the following: package shipment, receipt, clearing customs and VI excise tax and transferring Mercury from glass container to steel container. EPA then recommended that ERCS proceed with alternate packaging (overpacking) in accordance with DOT and IATA shipping regulations. ERCS questioned whether EPA was compelling them to do something that they (ERCS) was "uncomfortable" with. OSC responded that he would sign the shipping papers.

Drum crushing equipment was shipped from JFK airport, but did not arrive in St. Croix as it was taken off the plane in St. Thomas.

C. June 20, 1990, TAT provided all necessary notifications regarding the detonation, including St. Croix Prison, Police, Fire, EMS, DFW, St. Croix STP, Alexander Hamilton Airport, FAA, and businesses near the airport and landfill.

ERCS completed restaging of drums.

EPA discussed packaging of Mercury with ERCS. ERCS chemist informed EPA that he has contacted All-PAK and that they informed him that their container is acceptable for overpacking the glass container of Mercury. EPA indicated to ERCS that they should further safeguard shipment by placing material in overpacked metal can with vermiculite. ERCS agreed to overpack materials, but is still uncomfortable. OSC signed shipping papers.

Drum crushing equipment arrived on St. Croix and will be delivered tomorrow.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. Detonation of shock sensitives and cylinders off-site at landfill will take place on June 21, 1990.

B. TAT will notify the NRC of the environmental release within one hour after final detonation.

C. Drum crushing will be initiated upon arrival of the drum crushing equipment.

D. TAT will perform sampling of the WAPA and VIPA wells nearest the site on June 22, 1990, contingent upon CLP Lab selection.

E. Transportation of labpacked materials and paint waste will be coordinated with mini-removals at UVI on June 25, 1990, and June 26, 1990.

F. Phase II Site Demobilization.

G. The OSC will review the results of the dioxin data analyzed from the three five (5) gallon containers.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 6/20/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	398,823	101,177
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$648,823	\$613,177
Other Costs			
TAT Salary\Travel as of 6/20/90		68,706	
EPA Salary\Travel as of 6/20/90		49,867	

Estimate of Total
Expenditures to Date \$767,396

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
42%	51%	25%	65%

PERCENTAGE OF \$2 MILLION

38%

FUTURE
POLREPS
FINAL POLREP _____ FORTHCOMING _____ SUBMITTED BY _____
John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED

301562

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U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: June 23, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff,
EPA

W. Muszynski, EPA
R. Caspe, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA

ERD, WH-548B
(E-Mail)

B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Eighteen (18)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 210 Drums, 240 Empty
Drums, and 22 Tanks. Possibly Dioxin
Containing Materials.
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Phase II Removal Action continues.

2. ACTION TAKEN:

A. June 21, 1990, detonation of shock sensitives or reactive materials and cylinders conducted between 0600-0800 hours at Anquilla landfill.

EPA notified NRC of the environmental release within a half-hour.

ERCS initiated and completed drum crushing. ERCS prepared galley trailer for demobe. ERCS demobed explosive expert.

B. June 22, 1990, EPA (Higgins) and TAT (Bechtel) demobed from site. ERCS demobed foreman and drum crush operator (subcontractor).

ERCS continued general site clean-up and preparation for demobilization.

Box trailer for labpacked materials and paint waste arrived on site.

C. June 23, 1990, Dave Martin from Chem Waste informed EPA that the box trailer delivered to site is owned by "Tropical" and they are not allowed to transport hazardous waste.

Loading of labpacks onto appropriate boxtrailer postponed until arrangements can be made with hazardous waste transporter.

ERCS demobed three personnel from site.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. TAT will perform sampling of the WAPA and VIPA wells nearest the site on June 25, 1990.

B. Transportation of labpacked materials and paint waste will be coordinated with mini-removals at UVI. Scheduling of hazardous waste transportation is unknown at the present time; and may be determined on June 25, 1990.

C. Phase II Site Demobilization.

D. The OSC will review the results of the dioxin data analyzed from the three five (5) gallon containers.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 6/20/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	398,823	101,177
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000

Subtotal	\$1,262,000	\$648,823	\$613,177

Other Costs

TAT Salary\Travel as of 6/20/90	68,706
EPA Salary\Travel as of 6/20/90	49,867

Estimate of Total Expenditures to Date \$767,396

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
42%	51%	25%	65%

PERCENTAGE OF \$2 MILLION

38%

FUTURE
 POLREPS
 FINAL POLREP _____ FORTHCOMING ☒ SUBMITTED BY Douglas R. Higgins
 John Higgins
 On-Scene Coordinator
 Response and
 Prevention Branch

DATE RELEASED

6/26/90

301565

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U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: July 12, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
R. Caspe, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Nineteen (19)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 210 Drums, 240 Empty
Drums, and 22 Tanks. Possibly, Dioxin
Containing Materials
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Phase II of Removal Action completed.

2. ACTION TAKEN:

A. June 25, 1990, VITELCO restores phone service. TAT samples VIPA and WAPA wells, packages samples, and ships samples via FedEx. This completes all TAT work on-site. Dave Martin of ChemWaste informs EPA that Trailer Marine Transport (TMT) is a certified hazardous waste transporter. TMT spots box trailer on-site for labpack loading.

B. June 26, 1990, EPA reviews ERCS memo regarding theft of treatment pool and aluminum stairs between Phase I demob (1/24/90) and Phase II mob (6/11/90).

ERCS demobilizes the galley trailer and air compressor. The bomb box is picked up at the site for transport to EPA, Edison. ERCS contacts John Bergman of Velsicol regarding the possible

reclaim of the eight, 55 gallon benzyl chloride drums. Velsicol will consider and contact EPA.

ETC informs OHM who informs EPA that additional compatibility testing revealed unacceptable reactions for drum nos. 159 and 75 within the acid liquid group and drum no. 133 within the base neutral group. Additional four quart samples are taken from each of these drums. ERCS also informs EPA that the bench scale testing for drum no. 81 indicated that neutralization of the acetic acid would generate 3-4 additional drums of waste.

AOSC informs ERCS of his approval to reimburse ERCS for replacement of aluminum stairs and treatment pool. The basis for this decision is EPA's prior determination, as documented in a November 27, 1989 EPA letter to ERCS, to not provide security while off-site. EPA informs ERCS to provide landfill/incineration analysis for the crushed drum sample.

C. June 27, 1990, ERCS packages samples for drum nos 81, 75, 159, and 133 and arranges transport via Four Star Transport to San Juan Airport where the samples will be shepherded by TAT, who will retain the services of a custom clearance broker, and will be transferred to FedEx for delivery to ETC, Findlay.

Dave Martin of ChemWaste packages the 1 quart glass container of mercury waste and ships material to Bethlehem Apparatus, Hellertown, PA. (EPA ID# PAD002390961).

Box trailers, loaded with labpacks, are transported to the container port and clear U.S. Customs.

Phase II demobilization completed. ERCS and EPA leave site.

D. June 29, 1990, AOSC discusses compliance status of Trade Waste Incinerator (TWI) with Region V and there is no problem with sending CERCLA wastes. Also, the status of Bethlehem Apparatus is discussed with Region 3 and they are in compliance.

TAT delivers Detonation Report Summary.

OSC mails letter to Mr. Cherra Hyliger, Deputy Commissioner of Operations for the Public Works Department, detailing the June 21, 1990 detonation of VChem hazardous waste materials at the Anguilla Landfill and addressing his concerns regarding public health.

E. July 2, 1990, AOSC arranges to meet Dave Martin of ChemWaste at Port Everglades to clear hazardous waste through U.S. Customs.

FedEx informs ERCS who informs EPA that Analab is not an approved lab for the receipt of "soil from a foreign land", which was the shipping paper description for the crushed drum samples. ERCS arranges for the sample to be transported to the NYTEST lab, which is a US Dept. of Agriculture and US Customs approved lab, for analysis.

TAT informs EPA that the drum samples are still in San Juan at the Four Star Company and that TAT cannot provide the transfer services requested by EPA because such work would constitute "personal services". EPA holds several heated discussions with the TAT leader and the TAT Zone Management before TAT agrees to provide the requested transfer services. The VIChem drum samples clear customs and leave San Juan via FedEx.

Off-Site Facility Selection checklists completed for TWI and Bethlehem Apparatus are approved by Bruce Sprague.

F. July 3, 1990, ERCS informs EPA that the mercury product and Uranyl acetate arrived at Polysciences intact.

OSC discusses the matter of the stolen aluminum stairs and treatment pool with the Contract Officer, Tim Grier. He agrees that, since EPA decided not to demobilize equipment and to not provide security while off-site (as documented in the November 27, 1989 letter), replacement of this equipment is an eligible cost and he approves of the expenditure.

G. July 5, 1990, AOSC arrives in Florida and meets with U.S. Customs officials and Crowley Maritime Corp. at Port Everglade. Customs inspector is confused as to the appropriate "PL No." to be entered on Customs Form 7523 and requests EPA to return tomorrow.

H. July 6, 1990, VIChem and St. Croix "mini-removal" hazardous waste clears Customs (PL No. is 3209.90.00004). Crowley trailers are inspected by AOSC and all drums are intact, no leaking or damaged drums. Drums are transferred from Crowley trailer to ChemWaste Truck by ChemWaste. ChemWaste Truck, which is placarded "Dangerous", "Poison", and "Flammable", departs Port Everglade.

I. July 9, 1990, OSC reviews status and plans for disposal analyses. ERCS agrees to furnish revised bulking scheme and informs EPA that drum samples are scheduled to arrive at Analab today for 21 day turnaround analysis.

J. July 10, 1990, OSC discusses possible reclaim of the benzyl chloride drums with Mr. Bergman of Velsicol. He informs OSC that he had passed the matter on to Velsicol, Memphis and that someone from that office should have contacted EPA. OSC informs Mr. Bergman that he would again contact him if no word is heard from other Velsicol representatives. At this point, reclaim of this 20 year old product does not appear to be promising.

OSC directs ERCS to furnish drum location map and inventory of unused supplies at VIChem.

3. FUTURE PLANS AND RECOMMENDATIONS:

- A. The OSC will prepare an Action Memo requesting a twelve month time limit extension.
- B. The OSC will review expended and expected costs and determine whether a request for additional monies is necessary.
- C. The OSC will review the results of the dioxin data analyzed from the three five (5) gallon containers.
- D. TAT will complete Phase II photodocumentation.
- E. TAT will complete Phase II well sample analysis summary.
- F. Analab will complete disposal analyses.
- G. ERCS will transmit analytical data to EPA and procure drum disposal facility.
- H. Phase III will be planned and mobilized.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 6/23/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	434,673	65,327
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$684,673	\$577,327
Other Costs			
TAT Salary\Travel as of 7/6/90		80,880	
EPA Salary\Travel as of 7/12/90		62,387	
Estimate of Total Expenditures to Date		\$827,940	

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
45%	54%	31%	77%

PERCENTAGE OF \$2 MILLION

41%

FINAL POLREP _____ FURTHER
POLREPS
FORTHCOMING X SUBMITTED BY

John Higgins
John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED

July 12, 1990

301570

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: August 3, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
R. Caspe, EPA
R. Salkie, EPA
J. Marshall, EPA
E. Schaff, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Twenty (20)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VICHem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 210 Drums, 240 Empty
Drums, and 22 Tanks. Possibly, Dioxin
Containing Materials
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Emergency response to a report of a fuming drum.

2. ACTION TAKEN:

A. July 24, 1990, Jim Southerland of VIAG informs EPA that a drum housed in the warehouse at VICHem is fuming. The OSC contacted TAT and ERCS and instructed them to prepare for site mobilization.

B. July 25, 1990, the OSC and 1 TAT personnel arrive on-site and determined the fuming drum to be drum no. 22. A review of the drum logs indicated that this was one of sixteen drums containing benzyl chloride. Benzyl chloride is a corrosive liquid, a severe skin irritant, and will volatilize to form hydrochloric acid. A previous response to a fuming drum emergency was conducted in May 1990 and is the main subject of POLREP #14. The OSC confirmed ERCS mobilization for the next day. A single site telephone line (#809-778-2199) was operational. TAT was instructed to furnish a

301571

Material Safety Data Sheet (MSDS) for benzyl chloride in the event that it became imperative to ship this material off St. Croix.

C. July 26, 1990, the OSC visited the Virgin Island Department of Planning and Natural Resources office in Christiansted and informed Mr. Leonard Reed of the emergency situation at VIChem. 3 ERCS mobilize to site in the late afternoon. The plan to stabilize the fuming drum, to inspect all other benzyl chloride drums, to obtain additional sample from drum #81, and to ship the benzyl chloride samples stored on-site is discussed. OSC informs ERCS that material transfer of benzyl chloride to poly drums will only be conducted if the drum is fuming because of drum deterioration. Generator was started and all electric equipment functioned. However, only the single site telephone line was operational. Only 2-150# air cylinders, which will be needed to supply the ERCS airline, are full.

C. July 27, 1990, no site telephone line is operational. Based on previous arrangements, OSC utilizes VIAG phone line with his EPA AT&T card. TAT purchases 2 floor fans, which will be used to ventilate the warehouse, and obtains a fax of benzyl chloride MSDS. ERCS enters Hot Zone in Level B Acid Splash Suits. ERCS loosens overpack lid of fuming drum #22, obtains additional 3 quarts of sample from drum #81, and informs OSC that drum #26, another benzyl chloride drum, is fuming lightly. ERCS packages samples for drum no. 81 and 3 quart samples of benzyl chloride. ERCS drops off 5-150# air cylinders for recharge. After warehouse is ventilated, ERCS reenters Hot Zone, removes overpack lids for all sixteen benzyl chloride, reinstalls missing bungs on drum nos. 22, 26 and 21, stabilizes these drums with lime, replaces overpack lids, and returns drums to pallets. OSC warehouse inspection indicates that the drums have been successfully stabilized.

TAT arranges transport of samples via Four Star Transport to San Juan Airport (SJA) where the samples will be transferred to FedEx for shipment to the mainland. TATL Henne, who had conferred with TAT Zone management, instructs TAT member Bechtel that TAT cannot procure the customs broker services necessary at SJA, as this would constitute "personal services". Without success, OSC discusses matter with TATL Henne and reminds him of the two previous occasions in January and June, 1990 when TAT provided the same services being requested. OSC confers with Jennifer Johnson, who was standing in for the EPA TAT project officer, Karen Tomimatsu. After conferring with Sue Anderson, Ms. Johnson advised OSC to contact Ms. Tomimatsu on Monday. OSC responded that there was a need to settle this issue but that the problem at hand had to be resolved this afternoon. OSC instructed ERCS that they would have to provide for clearing sample packages through U.S. Customs in San Juan.

D. July 28, 1990, ERCS picks up and delivers the 5 fully charged air cylinders to VIChem. OSC again inspects warehouse; inspection indicates that the drums have been successfully stabilized. EPA, TAT, and ERCS demob site.

E. July 31, 1990, OSC reviews and approves VICHem Invoice #6.

F. August 1, 1990, OSC drafts request to the Regional Administrator for exemption from the 12 month time limit and an increase to the total project ceiling. If approved this increase would establish a new total project ceiling of \$1,950,000.

G. August 2, 1990, OSC and Joe Rotola, the OSC for the Virgin Island mini-removals, review the costs being charged by ChemWaste for the joint labpack disposal. Manpower costs are distributed based on the site entry logs whereas transportation and disposal costs are apportioned by the weight of labpacks at each site. Total costs to be charged to VICHem for ChemWaste services is \$53,066.10.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. The OSC will review the results of the dioxin data analyzed from the three five (5) gallon containers.

B. TAT will complete Phase II photodocumentation.

C. TAT will complete Phase II well sample analysis summary.

D. Analab will complete disposal analyses.

E. ERCS will transmit analytical data to EPA and procure drum disposal services.

F. Phase III will be planned and mobilized.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,840,000	\$1,262,000	\$200,000	\$105,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$0

C. COSTS & BALANCES as of 6/23/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	434,673	65,327
KE3073	250,000	0	250,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$684,673	\$577,327
Other Costs			
TAT Salary\Travel as of 7/6/90		80,880	
EPA Salary\Travel as of 7/12/90		62,387	

Estimate of Total
Expenditures to Date \$827,940

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
45%	54%	31%	77%

PERCENTAGE OF \$2 MILLION

41%

FINAL POLREP FURTHER
POLREPS
FORTHCOMING X SUBMITTED BY John Higgins

John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED August 3, 1990

301574

OCT 24 1990
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U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: September 7, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730- Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
R. Caspe, EPA
R. Salkie, EPA
J. Marshall, EPA
E. Schaff, EPA
G. Pavlou, EPA
ERD, WH-548B
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC
TAT

POLREP NO.: Twenty One (21)
SITE NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 210 Drums, 240 Empty
Drums, and 22 Tanks. Including, Dioxin
Containing Materials
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Disposal arrangements underway for Phase III.

2. ACTION TAKEN:

A. August 6, 1990, OSC reviews total waste analysis data for suspected dioxin-containing material. This material consists of two (2) five gallon containers of "Weedox". Total waste analysis data for this material indicate that 2,3,7,8 Tetrachlorodibenzo-dioxin (TCDD) was not detected but significant levels of Octo-chlorodibenzodioxin (OCDD) and Heptachlorodibenzodioxin (HpCDD) and furans were measured. OSC contacts Paul des Rosiers, Chairman of the EPA Dioxin Disposal Advisory Group, regarding disposal options for the "Weedox" herbicide and OSC faxes Paul a copy of the Analytical Data Summary.

B. August 7, 1990, OSC reviews TAT costs with TATM Bechtel. TATM Bechtel informed OSC that certain TAT preliminary assessment-type costs were planned to be transferred from TAT's Removal Account for VIChem to TAT's Preliminary Assessment Account for VIChem. Accordingly, TAT has been furnishing cost figures which were adjusted downward for POLREP purposes. However, since the Technical Direction Document (TDD) for the VIChem Preliminary Assessment is closed out, there is no possibility of proceeding with the planned transferral. Therefore, all future POLREPs, including this POLREP, will show all current TAT costs charged to the VIChem Removal Action.

C. August 10, 1990, Paul des Rosiers contacts OSC and informs OSC that because of the small quantity of the "Weedox" material and the absence of TCDD, he recommends that the "Weedox" be applied on-site with respiratory protection in accordance with manufacturer instructions. According to Paul's 8/13/90 memo to the OSC, such application "will result in the promotion of UV photolytic destruction of not only the active ingredients but the CDD's (dioxins) and CDF's (furans) as well." Furthermore, the alternative of removing and disposing of this material requires pretreatment to reduce the CDDs and the CDFs and there are no permitted facilities in the U.S. to accomplish this requirement.

D. August 31, 1990, Regional Administrator approves Action Memo granting a time limit extension and increasing the total project ceiling to \$1,950,000.

E. September 4, 1990, ERCS informs OSC that all disposal analyses have been completed. OSC directs ERCS to solicit for drum disposal.

F. September 7, 1990, OSC reviews ERCS draft, disposal solicitation letter. VIChem drum disposal will be coordinated with drum disposal for St. Croix mini-removals. Upon selection of disposal company, ERCS will prepare waste profiles for OSC review and approval.

3. FUTURE PLANS AND RECOMMENDATIONS:

A. TAT will complete Phase II photodocumentation.

B. TAT will complete Phase II well sample analysis summary.

C. ERCS will procure disposal facilities for VIChem drummed waste.

D. Phase III will be planned and mobilized. Project exigencies and EPA budget constraints indicate that Phase III mobilization will occur sometime after the latter half of October 1990.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,950,000	\$1,516,000	\$200,000	\$195,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$254,000

C. COSTS & BALANCES as of 7/25/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	500,000	0
KE3073	250,000	10,489	239,511
KE3085	262,000	0	262,000

Subtotal	\$1,262,000	\$760,489	\$501,511
Other Costs			
TAT Salary\Travel as of 8/31/90		152,261	
EPA Salary\Travel as of 9/7/90		71,649	

Estimate of Total Expenditures to Date		\$984,399	

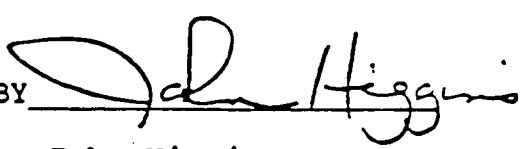
D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
50%	50%	36%	78%

PERCENTAGE OF \$2 MILLION

49%

FURTHER
POLREPS
FINAL POLREP _____ FORTHCOMING X SUBMITTED BY


John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED

September 7, 1990

301577

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U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: November 8, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
R. Caspe, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
~~E. Schaaf, EPA~~
ERD, WH-548B,
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC, VIDPNR
TAT

POLREP NO.: Twenty Two (22)
Site NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 240 Drums, 240 Empty
Drums, and 22 Tanks.
WATER BODY: Ground water, Caribbean Sea

1. SITUATION:

Disposal arrangements underway for Phase III.

2. ACTION TAKEN:

A. September 21, 1990, OSC received copy of ERCS disposal solicitation letter with list of bidders. Since one of the bidders is an ERCS subsidiary company, OSC directed ERCS to instruct bidders to mail all bids to OSC to avoid the potential for ERCS conflict of interest.

B. October 3, 1990, The videotape of the June 1990 detonations was distributed to: all local officials who participated in coordinating the detonation; the US Coast Guard in San Juan, who observed the detonations; and Sherrel Henry, the RPM.

C. October 5, 1990, OSC evaluation of disposal bids indicates that incineration of the 17 drums of benzyl chloride to be prohibitively expensive. Only one disposal company bid on the Benzyl chloride wastestream. ChemWaste Management bid \$170,000. for transferal of material from drums to 1 gallon charges, and transportation and disposal of material; an alternate bid of \$130,000. was submitted by CWM for on-site treatment. OSC decides to explore recycling this material.

D. October 9, 1990, Based on their overall low bid for transportation and disposal and their prior experience disposing of labpacked material in June 1990, OSC selects ChemWaste Management, Inc. (CWM) for disposal of drummed material. However, OSC writes letter to CWM requesting a clarification of their bid, especially CWM proposed transportation costs (\$426/drum).

E. October 18, 1990, OSC completed a "Compendium of Well Water Data Collected at VIChem by EPA from 1986 to 1990." Over this period, there were five separate sampling events at seven different locations. The data consistently indicated Chloroform contamination. The Compendium, complete with a three dimensional color graphic plot, was distributed to the RPM and VIDPNR and it will be appended to the OSC Report.

F. October 23, 1990, CWM letter reduced transportation costs to \$330/drum which is acceptable to OSC.

G. October 24, 1990, OSC met with D & O Chemical company representatives and discussed their interest in accepting 17 drums of Benzyl chloride product. The meeting went well. The OSC examined company files, including DEA import forms and invoices for Benzyl chloride, and determined that the company is a legitimate concern actively engaged in importing and wholesaling Benzyl chloride. Transportation arrangements were discussed and will be finalized prior to Phase III mobilization.

H. November 1, 1990, OSC presented a slide show of the detonations at the OSC National Conference held in Washington, D.C. The presentation was well received with avid interest displayed by OSC's in attendance.

I. November 8, 1990, OSC hand delivers signed waste profiles for twenty-one wastestreams of drummed material at VIChem for submittal to CWM for approval.

3. FUTURE PLANS AND RECOMMENDATIONS

OSC will complete plans for removal and disposal of drummed material at VIChem.

4. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,950,000	\$1,516,000	\$200,000	\$195,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$254,000

C. COSTS & BALANCES as of 10/27/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	500,000	0
KE3073	250,000	69,000	181,000
KE3085	262,000	0	262,000
Subtotal	\$1,262,000	\$819,000	\$443,000
Other Costs			
TAT Salary\Travel as of 8/31/90 -		152,261	
EPA Salary\Travel as of 11/3/90		77,650	
Estimate of Total Expenditures to Date		\$1,048,911	

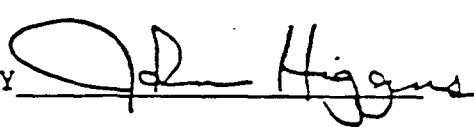
D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
54%	54%	39%	78%

PERCENTAGE OF \$2 MILLION

52%

FURTHER
POLREPS
FINAL POLREP _____ FORTHCOMING X SUBMITTED BY


John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED November 8, 1990

301580

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: November 15, 1990

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour EmBergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
R. Caspe, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
~~E. Schaaf, EPA~~
ERD, WH-548B,
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
LEPC, VIDPNR
TAT

POLREP NO.: Twenty Three (23)
Site NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 240 Drums, 240 Empty
Drums, and 22 Tanks.
WATER BODY: Ground water, Caribbean Sea

1. SUMMARY OF VANDALISM INCIDENT:

A. The VIChem Site demobilized on July 27, 1990. During the past three weeks, thieves made several break-ins at the Site. Equipment left on-site was stolen and the trailers were ransacked.

The intruders broke into the drum storage room and tampered with approximately 40 drums. The yellow poly-overpacks previously holding the drums were stolen and removed from the Site.

On Saturday November 10, 1990, Mr. Adalberto Bosque of the EPA Caribbean Field Office (CFO) and TATM's Bechtel and Mentzel arrived on the Site and assessed the extent of the situation. ERCS mobilized to the Site on Sunday November 11, 1990.

A crew of ERCS and TAT righted the drums, placed fiber pack drums on pallets and spread lime inside the warehouse to neutralize spilled acid.

The U.S. Attorney on St. Croix and local enforcement agencies are conducting a criminal investigation.

301581

2. SITUATION/BACKGROUND

A. See Previous POLREP.

B. The VICHem Site demobilized in July 1990 while EPA awaited approval to dispose of the approximately 240 drums remaining in the warehouse.

During this demobilization ERCS and TAT left equipment and gear on-site to be used in the final phase of the removal. The decision to leave gear on-site was made due to the high cost of shipment off and back on to the island.

At the time the Site was demobilized VIAG was preparing to operate an alcohol dewatering facility on the property. VIAG's owner maintained offices in the building on-site.

3. ACTIONS TAKEN

A. On Friday, November 9, 1990, the VI Department of Planning and Natural Resources (DPNR) inspectors notified EPA a break-in had occurred at the VICHem Site. EPA/TAT immediately responded to the Site to conduct a preliminary investigation in order to ascertain the extent of damage.

B. On Saturday, November 10, 1990, EPA/TAT arrived at the Site at 0800 hrs. Mr. Bosque informed OSC of the following observations made and recorded by EPA and TAT:

1. A new "Gateway" was cut into the fence surrounding the property. A well-worn pathway had been created in the vegetation. This path was obviously made by vehicular traffic over a period of time.

2. The EPA/TAT office trailer had been broken into and ransacked. Thieves stole any items which may have had any commercial value including chairs, coolers, fax machine, five telephones and other items. Expendable personal protective equipment was not removed. The intruders apparently entered through a broken window.

3. The ERCS equipment storage trailer and the decontamination trailer were broken into and ransacked. Some items stolen included tools, power tools, a washer and dryer, shovels, non-sparking drum tools, radios and other response gear. In addition, the four tires on the decon trailer were stolen.

The ERCS pick-up truck was stripped of two tires, the battery, mirrors, radiator, one door and the windshield was broken.

4. VIAG offices were also ransacked.

5. The drum storage area was also broken into. The intruders removed the lids from approximately 42 yellow poly overpacks and tipped the contents onto the floor. Several drums were broken in this process. Twenty-seven fiber drums containing powders, including salicylic acid, were removed from overpacks in the front storage room. Fifteen poly drums containing liquids, including glacial acetic acid, sodium hydroxide and other corrosive material, were removed from overpacks in the back room. Liquid corrosive material was observed on the backroom floor. Apparently, this spillage was the former contents from Drum # 159 that had contained a corrosive liquid but is now empty. This spillage was entirely contained within the warehouse.

6. Items which were not stolen and are apparently in good condition are the 125 KW generator, the bobcat, the trailers themselves, four SCBA's and other gear. A full inventory is available.

7. On the top level of the distillation tower evidence was found that a vagrant had been sleeping on-site. A bed and food were found by EPA/TAT.

After consulting with Mr. Angel Rodriguez, who is the EPA OSC on-scene at the Muriatti Site in Puerto Rico, OSC activates ERCS to respond to the Site and directs ERCS to utilize the Response Manager (RM) and two Response Technicians from the Muriatti Site.

The local police were notified of the incident and dispatched an officer to the scene. The VI Police will drive by Site but are unable to provide full time security.

C. On Sunday, November 11, 1990, DPNR visited the Site, agreed to coordinate efforts with EPA, assisted in the provision of security, and provided EPA with hand-held radios. DPNR informs EPA that yellow overpacks were spotted at a St. Croix housing development, which is within one mile from the Site. Also, DPNR took the initiative on the subsequent criminal investigation. DPNR efforts in assisting EPA are exemplary. ERCS crew arrives on Site. At TAT directive, TATM Devine mobilized to site.

D. On Monday, November 12, 1990, ERCS and TAT make a Level "B" Site entry and uprighted the overturned drums. The trailers were cleaned and reorganized. At TAT directive, TATM Bergmueller mobilized to Site.

E. On Tuesday, November 13, 1990, ERCS placed all fiber drums on pallets and spread six bags of lime around the drums to neutralize and stabilize the spilled material.

A full inventory of all equipment remaining on site was made. Also, ERCS was directed to develop a list of stolen equipment and a list of equipment necessary to conduct future removal activities at the Site.

VIDPNR Enforcement went before the St. Croix Magistrate to obtain a search warrant for the planned raid. When the Magistrate was informed of the nature of the vandalism he instructed VIDPNR to coordinate with Federal Criminal Enforcement Agencies. VIDPNR contacted the U.S. Attorney on St. Croix and a meeting was arranged.

As discussed with the OSC, Mr. Bosque contacted Mr. Jay Harrison of the FBI. Mr. Harrison explained that the FBI had only 2 agents in the USVI and they were stationed in St. Thomas. He would contact FBI Offices in Puerto Rico to see whether they could participate in the investigation.

Mr. Bosque met with the U.S. Attorney's Office on St. Croix, DPNR Enforcement, and the local police to discuss the criminal investigation and plans. A Strike Force raid is planned for Thursday, November 15, 1990. Besides vandalism at VIChem, the Strike Force is also concerned with illegal drug activity at the housing development.

TATM's Mentzel and Bergmueller demobilized from Site.

The fence surrounding the property was repaired.

OSC and Mr. Bosque discussed situation with Mr. Gary Nurkin of ORC. ORC will contact Mr. Jim Peters of the U.S. Attorneys Office in St. Croix and is willing to advise OSC in the event OSC is requested to testify before a Grand Jury. OSC leaves messages at OEP, OCI and for Mr. Andy Prachak of the CFO.

OSC contacted Mr. Southerland of VIAG at his home in St. Croix. Mr. Southerland informs OSC that vandalism has been ongoing for the past three weeks. OSC asked why he did not contact EPA directly, or through VIDPNR. He replied that his files, including his personal telephone directory was ransacked and that he did not think to go through VIDPNR. He further stated that he encountered vandals at Site but he alleged that he did not receive strong police support. Police apprehended but released a vandal for no apparent good reason. He indicated to OSC that he was abandoning VIAG operations at VIChem.

OSC contacted ChemWaste Management (CWM), the selected disposal company, for the purpose of expediting planned disposal activities by temporarily storing VIChem drummed material prior to approval from disposal facilities. He felt that this could be done, as early as the first week in December 1990, but that he would have to check with CWM Memphis facility.

E. On Wednesday, November 14, 1990, TAT assisted the U.S. Attorney with preparation of the search warrant affidavit. Mr. Bosque, TATM's Bechtel and Devine, and 3 ERCS demobilize Site.

Mr. Chris Miller of OCI contacted OSC. OCI will not get involved in the criminal investigation of vandalism at VChem because OCI is responsible for pursuing "environmental" crimes. For example, if the warehouse spillage reached outside the building to the soil, OCI would then be involved.

Mr. Andy Prachak, ORC Attorney at the CFO, contacted OSC and OSC updated him on status of criminal investigation.

ERCS subcontracts for twenty-four hour security at the Site.

F. On Thursday morning, November 15, 1990, a Strike Force raid lead by the VI Police was conducted and 8-10 yellow overpacks were recovered and the names of the thieves were learned. ERCS foreman assisted the raid, established 24 hour security at the Site, and demobilized.

4. FUTURE PLANS AND RECOMMENDATIONS:

A. EPA will cooperate with the ongoing VI Police criminal investigation and any subsequent criminal prosecution.

B. Drum removal is tentatively scheduled for December 1990.

5. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,950,000	\$1,516,000	\$200,000	\$195,000

B. UNOBLIGATED MITIGATION FUNDS REMAINING \$254,000

C. COSTS & BALANCES as of 10/27/90

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	500,000	0
KE3073	250,000	69,000	181,000
KE3085	262,000	0	262,000

Subtotal	\$1,262,000	\$819,000	\$443,000
Other Costs			
TAT Salary\Travel as of 8/31/90		152,261	
EPA Salary\Travel as of 11/3/90		77,650	

Estimate of Total Expenditures to Date	\$1,048,911

D. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
54%	54%	39%	78%

PERCENTAGE OF \$2 MILLION

52%

FINAL POLREP FURTHER POLREPS FORTHCOMING X SUBMITTED BY John Higgins

John Higgins
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED November 15, 1990

301586

Berns

U.S. ENVIRONMENTAL PROTECTION AGENCY

FINAL POLLUTION REPORT

DATE: October 25, 1991

Region II
Response and Prevention Branch
Edison, New Jersey 08837
(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
K. Callahan, EPA
R. Salkie, EPA
J. Marshall, EPA
G. Pavlou, EPA
E. Schaaf, EPA ✓
C. Berns, EPA
ERD, WH-548B,
(E-Mail)
B. Sprague, EPA
G. Zachos, EPA
P. Gelabert, EPA
A. Smith, VIDPNR
Y. Canegata, VIDPNR
TAT

POLREP NO.: Thirty (30)
Site NO.: 4V
POLLUTANT: Lab Chemicals, Alcohols, Solvents, Acids
CLASSIFICATION: Major
SOURCE: Virgin Island Chemical Company (VIChem)
LOCATION: St. Croix, US Virgin Islands
AMOUNT: Approximately 566 Known Lab Chemicals, 590
Unknown Lab Chemicals, 240 Drums, 240 Empty
Drums, and 22 Tanks.
WATER BODY: Ground water, Caribbean Sea

1. SITUATION

The final phase of site cleanup operations was completed in April 1991. This removal action, which was been pending the final disposal of all hazardous material, was completed on October 24, 1991.

2. ACTIONS TAKEN

A. On April 26, 1991, Chem Waste Management (CWM) informed OSC that a tractor-trailer containing 21 drums from Wastestream # 5 (base neutral liquids) was involved in an accident while en route to CWM's Lake Charles facility. The accident occurred at 2 AM this morning when the truck jack-knifed and collided with an automobile. A pregnant female passenger in the automobile was taken to the hospital for observation and released the next day with no reported problems. No drum material was spilled, the drums were transferred to another trailer, and transported to the disposal facility later this morning.

301587

When - FY
Jan 8/25/93

4. FUTURE PLANS AND RECOMMENDATIONS:

- A. Complete review of upcoming 1900-55 forms and invoices.
- B. Completion of OSC Report in FY '92.
- C. Coordinate with ORC on enforcement case.
- D. The OSC will continue working on closing this project out. ERCS has requested reimbursement for approximately \$57,000. worth of supplies and equipment that were stolen or damaged during the November 1990 vandalism incident. A complete review of costs by the OSC, as requested by the Contract Officer, will require that ERCS submit additional documentation.

5. KEY ISSUES

In accordance with the Action Memo and the CERCLA Off-Site Compliance Policy, the following materials were disposed of at off-site facilities during clean-up activities: over 8,000 pounds of laboratory chemicals; 189 - 55 gallon drums of hazardous waste chemicals; 40 - 85 gallon drums of miscellaneous hazardous waste (i.e., drained batteries, contaminated PPE, and contaminated floor sweepings); and 240 crushed empty drums. Approximately 590 unknown laboratory containers were opened remotely on-site by rifle and the contents solidified into 3 - 55 gallon drums that were included in drum disposal operations.

The following materials were disposed of through on-site/off-site treatment or recycle: 11 compressed gas cylinders and 70 pounds of shock-sensitive chemicals were detonated; 43 - 55 gallon drums of virgin product were recycled; and 2 five gallon containers of herbicide were sprayed on site.

The final draft of the Site Inspection report was submitted by FIT to EPA (ESD) on September 4, 1991. The in-house FIT data validation for organic and inorganic data was completed but only the inorganic data has received EPA final approval. Groundwater data indicated chloroform contamination in the on-site well (31 ug/L) and the two downgradient public water supply wells sampled: Fairplains #9 (12ug/L) and Fairplains # 8 (12ug/L). The on-site soil and sediment sample data also indicated contamination. The Pre-Remedial and Data Support Section will review the SI-report and determine whether a Hazard Ranking Score package is warranted.

There are no hazardous laboratory or drummed materials remaining at the site. The possible remediation of suspected contamination of groundwater, soil, and sediment originating from VIChem will be considered under the National Priority List system for prioritizing site remediation as required by \$300.425 of the National Contingency Plan.

6. DISPOSITION OF WASTES

Wastestream*	Medium	Quantity	Treatment	Disposal
Labpacks of Chemicals	Solid & Liquid	7990 pounds	Incineration	CJM Trade Wind Incinerator
Hazardous Cylinders	Gas	11 cylinders	Detonation	Anguilla Landfill, St. Croix
Shock-Sensitive Chem.	Solid & Liquid	70 pounds	Detonation	Anguilla Landfill, St. Croix
Uranyl Acetate	Solid	100 grams	Recycle	Polysciences, Inc.
Mercury	Solid	1 pound	Recycle	Polysciences, Inc.
"Weedox" Herbicide	Liquid	2/5 g. drums	On-Site Spraying	VIChem, St. Croix
1 - Organic Liquids	Liquid	14/55 g. drums	Incineration	Rollins, Deer Park, Tx.
2 - Organic Liquids	Liquid	13/55 g. drums	Incineration	Rollins, Deer Park, Tx.
3 - Flam. Organic Liq.	Liquid	19/55 g. drums	Incineration	Rollins, Deer Park, Tx.
4 - Flam. Organic Liq.	Liquid	11/55 g. drums	Incineration	Rollins, Deer Park, Tx.
5 - Base Neutral Liq.	Liquid	21/55 g. drums	Wastewtr treat.	CJM Lake Charles, La.
6 - Base Neutral Liq.	Liquid	17/55 g. drums	Incineration	Rollins, Deer Park, Tx.
7 - Base Neutral Sol.	Solid	21/55 g. drums	Landfill	CJM Emelle, Ala.
7A- Base Neutral Sol.	Solid	15/55 g. drums	Landfill	CJM Emelle, Ala.
8 - Acid Liquids	Liquid	15/55 g. drums	Incineration	Rollins, Deer Park, Tx.
9 - Organic Solids	Solid	6/55 g. drums	Incineration	Rollins, Deer Park, Tx.
9A- Salicylic Acid	Solid	27/55 g. drums	Recycle	D&O Chemical/Pfister Chem. Englewood, NJ/Ridgefield, NJ
10- Chlor. Org. Liq.	Liquid	1/55 g. drums	Incineration	Rollins, Deer Park, Tx.
11- Flam. Org. Liq.	Liquid	1/55 g. drums	Incineration	Rollins, Deer Park, Tx.
12- Base Neutral Liq.	Liquid	1/55 g. drums	Incineration	Rollins, Deer Park, Tx.
13- Acid Liquid	Liquid	1/55 g. drums	Incineration	Rollins, Deer Park, Tx.
15- Tartaric Acid	Solid	6/55 g. drums	Landfill	CJM Emelle, Ala.
17- RCRA Empty Drums	Solid	240 drums	Landfill	CJM Emelle, Ala.
20- Benzyl Chloride	Liquid	16/55 g. drums	Recycle	D&O Chemical/Jane Fine Chem. Englewood, NJ/Bound Brook, NJ
Drained Batteries	Solid	3/85 g. drums	Landfill	CJM Emelle, Ala.
Battery Acid	Liquid	3/5 g. drums	Wastewtr. treat.	CJM Model City, NY
Line/Floor Sweepings	Solid	7/85 g. drums	Landfill	CJM Emelle, Ala.
Protective Clothing	Solid	29/85 g. drums	Incineration	TVI, Sauget, IL
Protective Clothing	Solid	1/85 g. drums	Incineration	ENSCO, Little Rock, AR
Sample Glassware	Solid	4/5 g. drums	Incineration	ENSCO, Little Rock, AR

* Numbers preceding certain wastestreams identify those wastestreams according to the bulking scheme. WS #14 was a one drum wastestream the contents of which were spilled during vandalism. WS # 16, 18, and 19 were Wastestreams for the St. Croix "Mini-Removals" project that were bid and disposed of with VIChem waste but charged under the St. Croix "Mini-Removals" project.

7. FINANCIAL ACCOUNTING

A. CEILINGS

TOTAL PROJECT	MITIGATION	EPA	TAT
\$1,950,000	\$1,516,000	\$150,000	\$245,000
B. CONTINGENCY COSTS			\$39,000
C. UNOBLIGATED MITIGATION FUNDS REMAINING			\$154,000
D. COSTS & BALANCES as of 7/30/91			

DCN	OBLIGATED AMOUNT	EXPENDED AMOUNT	BALANCE
KE3042	\$250,000	\$250,000	\$0
KE3069	500,000	500,000	0
KE3073	250,000	250,000	0
KE3085	262,000	262,000	0
KE0036	100,000	7,658	92,342
Subtotal	\$1,362,000	\$1,269,658	\$92,342
Other Costs			
TAT Salary\Travel as of 3/29/91		219,361	
EPA Salary\Travel as of 10/25/91		147,250	
Estimate of Total Expenditures to Date		\$1,636,269	

E. CEILING PERCENTAGES

TOTAL PROJECT	MITIGATION	EPA	TAT
84%	84%	98%	90%
PERCENTAGE OF \$2 MILLION			
82%			

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for recovery.

FURTHER
POLREPS
FINAL POLREP X FORTHCOMING _____

SUBMITTED BY



John Higgins, P.E.
On-Scene Coordinator
Response and
Prevention Branch

DATE RELEASED

October 25, 1991

Virgin Island Chemical Company Removal Investigation, St. Croix, U.S.V.I.

- * Site inspection conducted January 31, 1989
- * 400 drums inventoried
- * 800 lab reagents inventoried
- * 8 steel tanks with liquids
- * 4 full tanks of ethanol
- * Sodium metal; Ethyl ether; Phosphorous pentoxide; Diisobutyl aluminum hydride pose serious threat
- * Dog kennel operating on site, owner living on site
- * PRP actively using site
- * St. Croix prison 1/2 mile downwind
- * Air monitoring results on site equivalent to background

From: Michael Mentzel TAT-2 *MM*
Jeff Bechtel TAT-2

To: Doug Kodama OSC
U.S. EPA Response and Prevention Branch

Subject: Virgin Islands chemical Company (VI CHEM) Removal Evaluation
and Site Investigation preliminary report.

Date: 2/2/89

INTRODUCTION

On Tuesday January 31, 1989 the U.S. EPA Response and Prevention Branch conducted a Removal Evaluation and Site Investigation at the Virgin Island Chemical Company (VI CHEM) site in St. Croix U.S. VI. This action is in reply to a request from George Pavlou, associate director Enforcement programs dated 1/23/89.

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St. Croix VI

A. LABORATORY

Over 800 containers of laboratory reagents and unknown liquid and solid material are located in this area. Room 22 is the main lab area, Room 18 is the lab storage area, Room 15 contains unmarked glassware and Room 11 contains only a few items. Some of the more nefarious items of note are as follows:

1. Sodium metal (2 boxes). Water reactive.
2. Ethyl Ether (6 cans). Potential explosive.
3. Diisobutyl aluminum hydride (4 lecture bottles). Spontaneously combusts in air.
4. Potassium cyanide (2 bottles). Poisonous. Stored near acids, potential for release of hydrogen cyanide gas.
5. Phosphorous pentoxide (1 bottle). Reactive.
6. Two Flammable storage cabinets containing various materials and unknowns.
7. Two office type storage cabinets. One cabinet has spilled material on the top shelf which has dripped downward to mix with other chemicals.

8. 1-HCl cylinder in deteriorated condition
1-Cl₂ cylinder in poor condition

Many other chemicals exist in the laboratory, as well as many containers with unknown materials. Refer to table 1 for a listing of the known chemicals. All the chemicals which had dates are at least five years old.

B. DRUM STORAGE WAREHOUSE

In the main warehouse (Room 3, 4, 5 and 6) are located approximately 400 drums, of these, 200 are green painted drums which have the words ETHYL ALCOHOL stenciled on the lid. The condition of the ethyl alcohol drums vary from fairly sound to extremely deteriorated. Some of the drums consist of only a rusted shell with gaping corroded holes. A rough estimate shows that 100 are empty and 100 contain some type of material. This material may be some type of sludge. Other materials found are as follows:

1. Laboratory unknowns (75 containers less than 1 gal.)
 2. Methanol (5x 55 gal.)
 3. Glacial acetic acid (13x 55 gal.)
 4. Benzyl acetate (22x 55 gal.)
 5. Toluene (10x 55 gal.)
 6. Antifreeze/glycol (19x 55 gal.)
 7. Benzyl chloride (28x 55 gal.)
 8. Salicylic acid (27 fiber drums)
 9. Methyl isobutyl carbinol (12x 55 gal.)
 10. Sodium hydroxide (12x 55 gal.)
 11. Bulging drum, unmarked (1)
 12. Drums in which some type of reaction has taken place, lid popped off (2)
 13. Many other drums with contents as shown in table 2
 14. Drums of unknown material.
 15. Paint (97x 5gal. 21x 1gal.)
 16. Cylinder chlorine (1 bad condition). Cylinder hydrogen chloride (1)
- A cistern is located in room 2. PVC pipe leads to a pumping system outside the building. One drum of sulfonic acid is broken and leaking its contents.

OUTSIDE GROUNDS

An inspection of the reactor and centrifuge buildings revealed various production materials including lubricating oils; propane, oxygen and acetylene cylinders; filter media; ethanol; assorted paints and some sodium hexa-meta phosphate. Some of the oil drums are leaking.

Scattered around the facility are eight stainless steel tanks with quantities of unknown liquid varying from empty to three quarters full. A large storage tank is on site along with numerous pressure and reaction vessels. Fourteen large green storage tanks are also on-site. Ten are planned to be used in the alcohol dehydration project. Four of the ten are full of ethanol. The other six are empty. The remaining four not being used are empty and unsound. Mr. Southerland stated that sludge was removed from these tanks when his company began operation.

Mr Southerland is a partner in the alcohol dehydration project being undertaken by VIAG Fuels Inc. on the site. Mr Southerland was interviewed in order to gain information about present activities on site. VIAG uses some of the office space in the main building.

ATTACHMENT A

Island Chemical Site

Location: St Croix, U.S. V.I.

Description:

The Island Chemical site is located on the Island's South side near the west end (Figure 1). The site is situated on route 66, approximately 0.5 miles due north of the Alexander Hamilton Airport. The site covers approximately 3 acres and is bordered to the north by an intermittent stream that originates on the north side of the Island and discharge into the Caribbean sea.

A number of residences are located as close as one-tenth of a mile from the site. In addition, several well fields are located in the vicinity of the site.

In connection with sale of assets of Island Chemical Company (ICC) to Virgin Island Chemical (VICC), in October, 1984, Enviro-Science, Inc. (ESI) was retained to investigate the ICC site. The investigation conducted by ESI revealed that both of the pits and the area around the 4-inch pipe were contaminated with Toluene and Pyridine (Figure 2).

Following the discovery of the contamination, ESI removed and/or treated some of the contaminated material at the Site. Additional investigations are necessary, however, to evaluate the nature and extent of any remaining contamination at the site and the threat, if any, posed by such contamination.

ESI has submitted a RI/PS work Plan to address the additional investigations that are necessary and EPA has commented. ESI is now revising the Work Plan.

The Work Plan, however, does not address a possible removal of chemicals stored in a portion of the main building owned by VICC. The Virgin Island Company is in the process of finalizing the sale of this main building.

On November 9th EPA and DPNR conducted a site inspection of the main building. The site inspection revealed that a portion of the building contains large amounts of stored chemicals in bags and drums. Some of the chemicals included: sodium hydroxide, toluene, sulfamic acid (granular), potassium sulphate and benzyl chloride. Many of the bags and drums have ruptured and have spilled all over the floor. There are pools of liquids, and powders over various parts of the floor. There are drums with portions of their sides rusted; others showed danger signs, such as bulging, pitting, and visible accumulation on some drums.

ISLAND CHEMICAL SITE

Site History

The 3.5-acre site is owned by Charles H. Steffey, Inc. On May 1, 1969 Steffey leased the property to Houston Chemical Industries, Inc. Houston Chemical assigned the lease to Caribe Chemical Company Inc., (subsequently known as Pierrel America, Inc.) on March 20, 1972.

On June 30, 1978-Pierrel America assigned the ground lease to Cooper Laboratories, Inc. (Cooper). On October 30, 1979 Cooper Laboratories assigned the lease to its subsidiary, Island Chemical Company (ICC). On November 1, 1979 Cooper Laboratories sold all of the stock of ICC to the predecessor of Berlex Laboratories, Inc. (Berlex). On September 14, 1984, ICC sold its assets to Virgin Island Chemical Company (VICC). (See figure 1 for break down of ownership).

Site Operations

Berlex acquired the site when it purchased Cooper in 1980. At the time of purchase the facility was in a non-operational mode. Prior to the acquisition of the leasehold by Cooper, it is believed that the prior owners were in the pharmaceutical area of the chemical industry and used the site to manufacture phenacetin and ethoxyquin. Cooper produced quinidine; operations was halted in the mid-1979.

Berlex revamped the facility and operated for about two of its four years of ownership. The facility produced primarily quinidine from quinine. Production was discontinued when the methodologies used produced a more expensive product than newer methods used elsewhere in the industry. The plant did not operate for more than a year prior to purchase by VICC.

Site Investigation

Enviro-Sciences, Inc. (ESI) was contracted by Berlex to conduct an environmental study of the ICC site. Under the contractual agreement between Berlex and VICC, ESI was responsible for certifying that the site was environmentally clean and free of chemical contamination; if not, the site had to be remediated.

ESI initiated a site evaluation in September, 1984 and continued the investigation into October. Contamination was found at several locations and a preliminary cleanup plan was submitted to EPA.

ISLAND CHEMICAL SITE

FOLLOW-UP AND RECOMMENDATIONS:

It is recommended that the TAT team evaluated the site to determine if the site warrants a removal action under CERCLA. In the interim, the following corrective actions should be implemented: Chemicals in container that are leaking, rusted etc., should be repackaged. Chemicals should also be staged on a platform so that water can not get to them.

EPA will mail notice letters to PRP's to offer them a chance to perform a removal action, if the TAT team makes the determination that one is necessary.

In the interim, the site will be evaluated for possible inclusion on the NPL. All existing available data will be used for the HRS scoring.

TABLE 1

Laboratory Reagent Inventory

CHEMICAL NAME =====	COMPANY =====	QTY ==	STATE =====
1,3-dinitrobenzene	Aldrich Chemical	100 g	solid
1-butanol	J.T.Baker Chemical	500 ml	liquid
1-chlorobutane	MCB	4 L	liquid
1-propanol	J.T.Baker Chemical	500 ml	liquid
18-Crown-6 99%	Aldrich Chemical	25 g	solid
2,2-oxydiethanol	Kodak	1 kg	liquid
2,6-dimethoxybenzoic acid 99%	Aldrich Chemical	25 g	solid
2,6-ditertiarybutyl p-cresol	Biesterfeld	500 g	solid
2-hydroxybenzyl alcohol 99%	Aldrich Chemical	25 g	liquid
2-hydroxyethyl ether	Aldrich Chemical	1 kg	liquid
2-methyl-1-butanol 99%	Aldrich Chemical	10 g	liquid
2-methylbutyl amine	American Laboratorie	15 g	liquid
3,3-dimethoxy benzidene	Kodak	100 g	solid
3-hydroxybenzoin acid	Aldrich Chemical	100 g	solid
4-chlorobenzene sulfonamide	Aldrich Chemical	100 g	solid
4-hydroxy 4methyl 2pentanone	Aldrich Chemical	500 g	liquid
4-hydroxybenzoic acid	Aldrich Chemical	50 g	solid
4-methylbenzo phenone 97%	Aldrich Chemical	50 g	solid
9-hydroxyflourene	Aldrich Chemical	2x25 g	solid
Acetic acid	MCB	2x5 lb	liquid
Acetone	Fisher Scientific	4 L	liquid
Acetonitrile	Supelco	1 box	liquid
Alkalinity C,D,E,G	Mogul Corporation	4x2 oz	liquid
Aluminum Chloride	Mallinckrodt	1 lb	solid
Aluminum chloride	Witco Chemical	500 g	solid
Ammonium acetate	Fluka	1 kg	solid
Ammonium acetate	Aldrich Chemical	2 kg	solid
Ammonium acetate purified	Jarchem Industries	250 g	solid
Ammonium hydroxide	Sargent Welch Scient	500 ml	liquid
Ammonium persulfate	J.T.Baker Chemical	2.5 kg	solid
Ammonium persulfate	J.T.Baker Chemical	500 g	solid
Ammonium thiocyanate	Fisher Scientific	500 g	liquid
Amyl alcohol	Mallinckrodt	1 pt	liquid
Arsenic trioxide	Fisher Scientific	2x113g	solid
Barium chloride	Drew Chemical	1 qt	liquid
Barium chloride	Mallinckrodt	500 g	solid
Barium chloride	Fisher Scientific	1 lb	solid
Barium hydroxide	Fisher Scientific	1 lb	solid
Benzaldehyde	J.T.Baker Chemical	500 ml	liquid
Benzene	Tenneco Oil	2x1gal	liquid

Benzhydrol	Kodak	100 g	solid
Benzoic acid	Mobay Chemical	1 lb	solid
Benzoin	Fluka	2x1 kg	solid
Benzoin 98%	Aldrich Chemical	4x500g	solid
Benzophenone	Aldrich Chemical	500 g	solid
Benzophenone	H&S Chemical	1 bag	solid
Benzophenone	Upjohn	500 g	solid
Benzophenone 99+%	Aldrich Chemical	50 g	solid
Benzoyl chloride	Mobay Chemical	1 lb	solid
Benzyl acetate 99%	Aldrich Chemical	100 g	liquid
Benzyl alcohol	Mallinckrodt	1 pt	liquid
Benzyl benzoate	Aldrich Chemical	100 g	liquid
Benzyl chloride	unknown	4 oz	liquid
Benzyl chloride	Velsicol	500 g	liquid
Benzyl cinnamate 98%	Aldrich Chemical	100 g	solid
Benzyl ether	Aldrich Chemical	1 kg	liquid
Benzyltriethylammoniumchlori	Aldrich Chemical	25 g	solid
Bismuth subnitrate	MCB	1 lb	solid
Bromine	Fisher Scientific	113 g	liquid
Bromophenol blue	Fisher Scientific	5 g	solid
Brucine sulfate	Fisher Scientific	1 oz	solid
Buffer solution pH 10.00	Fisher Chemical	500 ml	liquid
Buffer solution pH 4.00	Fisher Scientific	500 ml	liquid
Buffer solution pH 7.00	Fisher Chemical	500 ml	liquid
CAO-3 BHT	Sherwin Williams	1 bag	solid
Calcium sulfate anhydrous	W.A.Hammond Drierite	4x5 lb	solid
Cello-Seal	Fisher Scientific	25 g	liquid
Chloride F	Mogul Corporation	3 oz	liquid
Chlorodiphenyl methane 98%	Aldrich Chemical	100 g	solid
Chloroform	Fisher Scientific	4 L	liquid
Chromotropic acid Na salt	Fisher Scientific	25 g	solid
Cinnamaldehyde	unknown	2x1 kg	liquid
Citric acid anhydrous	J.T.Baker Chemical	500 g	solid
Citricacidtrisodiumdihydrate	Aldrich Chemical	1 kg	solid
Cobalt chloride	Fisher Scientific	2x1 lb	solid
Color standard 4	unknown	1 oz	liquid
Congo red	Fisher Scientific	25 g	solid
Copper metal	Fisher Scientific	500 g	solid
Cupric sulfate	Fisher Scientific	500 g	solid
Cupric sulfate	Mallinckrodt	500 g	solid
DPD #1,2,3 Reagents	Taylor Chemical	3x1 oz	liquid
Dibenzo 18-Crown-6 98%	Aldrich Chemical	50 g	solid
Dibenzoyl tartaric acid	Knoll Fine Chemicals	1 kg	solid
Dichloroethane 99%	Aldrich Chemical	1 kg	liquid
Dichlorophenyl methane 99%	Aldrich Chemical	25 g	solid
Dichlorotoluene 99%	Aldrich Chemical	100 g	solid
Diethylene glycol	Fisher Scientific	1 qt	liquid
Diisobutyl aluminum hydride	Texas Acres	4 cyl	gas
Diphenylmethane 99%	Aldrich Chemical	500 g	liquid
Diphenylthiocarbazone	Fisher Scientific	25 g	solid
Eosin Y	Aldrich Chemical	25 g	solid
Ether anhydrous	Fisher Scientific	4 qt	liquid
Ethoxyguin	unknown	4 oz	liquid
Ethyl acetate	Aldrich Chemical	5 gal	liquid
Ethyl acetate	MCB	5x1gal	liquid
Ethyl benzene	Dupont	1 qt	liquid
Ethyl ether 99%	Fisher Scientific	6x500g	liquid
Ferric ammonium sulfate	Fisher Scientific	500 g	solid

Ferric chloride	unknown	100 ml	liquid
Ferric chloride	Fisher Chemical	1 lb	solid
Ferric chloride anhydrous	Pennwalt Corporation	5x500g	solid
Ferric chloride anhydrous	Kodak	500 g	solid
Ferrous ammonium sulfate	Fisher Chemical	1 lb	solid
Formic acid	unknown	200 g	liquid
Glacial acetic acid	Fisher Chemical	5 lb	liquid
Hydrazine sulfate	Fisher Scientific	4 oz	solid
Hydrazine sulfate	Fisher Scientific	100 g	solid
Hydrochloric acid	MCB	2x6 lb	liquid
Hydrochloric acid	Fisher Chemical	3x1 L	liquid
Hydroxylamine hydrochloride	Fisher Scientific	1 kg	solid
Hydroxylamine hydrochloride	MCB	4 oz	solid
Iodine	Fisher Scientific	500 g	solid
Iron chloride anhydrous	BASF	500 g	solid
Isoamyl alcohol	Fisher Scientific	500 ml	liquid
Isobutyl alcohol	J.T.Baker Chemical	500 ml	liquid
Lead acetate	MCB	1 lb	solid
Lead nitrate	Fisher Scientific	100 g	solid
Lithium perchlorate	Aldrich Chemical	500 g	solid
Magnesium sulfate	Fisher Scientific	500 g	solid
Medical oxygen	MSA	1 cyl	gas
Mercuric chloride	Fisher Scientific	2x100g	solid
Mercuric oxide	Fisher Scientific	500 g	solid
Mesityl oxide	Aldrich Chemical	100 g	solid
Methanol	Fisher Scientific	4 L	liquid
Methenamine	Fisher Scientific	500 g	solid
Methyl alcohol	Mallinckrodt	1 gal	liquid
Methyl orange	Fisher Scientific	113 g	
Methyl red	Fisher Scientific	2x10 g	solid
Monochlorobenzene	PPG Industries	10 oz	liquid
N-methylaniline	Kodak	1 kg	liquid
Na salt of ME salicylate	Sattra Chemical	1 bag	solid
Niacin N.F.	Nepera Chemical	250 g	solid
Nitric acid concentrated	J.T.Baker Chemical	2x8 lb	liquid
Nitrobenzene	Fisher Scientific	1 qt	liquid
Non aqueous buffer soln.	Beckman Instruments	1 pt	liquid
Nutrizyme	Merck	2 oz	solid
Oil #3	Frich Oil	5 gal	liquid
Paraffin oil	Fisher Scientific	1 qt	liquid
Paraformaldehyde	MCB	1 qt	liquid
Paraformaldehyde prills 91%	Celanese Chemical	1 lb	solid
Perchloric acid	MCB	2x8 lb	liquid
Phenol red	Fisher Scientific	5 g	solid
Phenophtalein	Fisher Scientific	1 oz	solid
Phenylhydrazine	Fisher Scientific	4x4 oz	liquid
Phenylhydrazinehydrochloride	Fisher Scientific	2 lb	solid
Phosphorous pentoxide	Fisher Scientific	1 lb	solid
Piperazine	MCB	100 g	solid
Potassium bromide	Fisher Scientific	5x500g	solid
Potassium butoxide	Callery Chemical	50 g	solid
Potassium chloride	Beckman Instruments	2x6 oz	solid
Potassium cyanate	Fisher Scientific	1 lb	solid
Potassium cyanide	Fisher Scientific	500 g	solid
Potassium dichromate	Fisher Scientific	500 g	solid
Potassium ferrocyanide	Fisher Scientific	3 kg	solid
Potassium hydroxide	Mallinckrodt	2x1 lb	solid
Potassium hydroxide	Fisher Scientific	500 g	solid

Potassium iodide	Drew Chemical	1 qt	liquid
Potassium iodide	Fisher Scientific	2x500g	solid
Potassium periodate	Fisher Scientific	100 g	solid
Potassium platinate	Varlacold Chemical	5 g	solid
Potassium sulfate	Indiana Army Ammo Plant	250 g	solid
Potassium sulfate	Aldrich Chemical	500 g	solid
Potassium sulfate	unknown	50 g	solid
Potassium thiocyanate	Fisher Scientific	500 g	solid
Resorcinol	Koppers	3 bags	solid
Salicylaldehyde 99+	Aldrich Chemical	100 g	liquid
Salicylic acid	Aldrich Chemical	100 g	solid
Salicylic acid	Aceto Chemical	500 g	solid
Salicylic acid sodium salt	Aldrich Chemical	100 g	solid
Sicapent	MCB	2.8 L	solid
Silica gel dessicant	Davison Chemical	2x1 qt	solid
Silver nitrate	J.T.Baker Chemical	1 oz	solid
Silver nitrate	Sargent Welch Scientific	30 g	solid
Sodium Chloride	Fisher Scientific	500 g	solid
Sodium acetate	Sattra Chemical	3 bags	solid
Sodium acetate anhydrous	Niacet Corporation	250 g	solid
Sodium acetate anhydrous	CDF Chimie Noth America	2x500g	solid
Sodium amide	Farchan Research Lab	500 g	solid
Sodium benzoate	Sattra Chemical	1 bag	solid
Sodium benzoate	Dastech International	1 bag	solid
Sodium benzoate	Ishihara Corporation	250 g	solid
Sodium benzoate	Pfizer	100 lb	solid
Sodium borohydride	Fisher Scientific	4x25 g	solid
Sodium carbonate	Fisher Scientific	1 kg	solid
Sodium carbonate anhydrous	Mallinckrodt	1 lb	solid
Sodium chlorate	Hooker Chemical	1 box	solid
Sodium dichromate	Fisher Scientific	10 kg	solid
Sodium formate	unknown	5 lb	solid
Sodium hydride	Thiokol/Ventron Division	1 lb	solid
Sodium hydroxide	Mallinckrodt	500 g	solid
Sodium metal	RMI	2 boxes	solid
Sodium nitrite	Fisher Scientific	2x500g	solid
Sodium nitro ferricyanide	MCB	4 oz	solid
Sodium sulfate	Fisher Scientific	500 g	solid
Sodium tartrate	J.T.Baker Chemical	2 oz	solid
Sodium tartrate	Fisher Scientific	6x113g	solid
Sodium thiosulfate	Fisher Scientific	2x1 lb	solid
Succinic anhydride	MCB	6x250g	solid
Succinic anhydride	Aldrich Chemical	2x1 kg	solid
Sulfamic acid	Fisher Scientific	500 g	solid
Sulfanilic acid	H&S Chemical	1 bag	solid
Sulfite O,P,Q	Mogul Corporation	3x2 oz	liquid
Sulfuric acid	J.T.Baker Chemical	10 lb	liquid
Tetraphenolboron sodium 99+	Aldrich Chemical	25 g	solid
Thiopene	Kodak	100 g	liquid
Total alkylinity indicator	Drew Chemical	1 qt	liquid
Tributyl borate	Aldrich Chemical	750 g	liquid
Trichloroethylene	Mallinckrodt	1 pt	liquid
Triethyl borate 97+	Aldrich Chemical	100 g	liquid
Triethylenediamine	Air Products	250 g	solid
Weedox C/R 250 herbicide	Southern Mill Creek Prod.	2x5gal	liquid
Xylene	Fisher Scientific	5x1 L	liquid
Zinc chloride	Fisher Scientific	500 g	solid
Zinc chloride anhydrous	Mineral Research	1 lb	solid

p-chlorobenzene sulfonamide	H&S Chemical	2 bags	solid
p-naptholbenzein	Fisher Scientific	25 g	solid
p-toluenesulfonicmonohydrate	Aldrich Chemical	500 g	solid
pH indicator A	Mogul Corporation	2 oz	liquid
z Miscellaneous unknowns	on site lab glassware	280bot	misc.
z Miscellaneous unknowns	on site one oz bottles	238bot	liquid

TABLE 2

Drum Inventory

Chemical Name =====	Company =====	Qty ===	State =====
Acetone	Ashland Chemical	55 G	liquid
Acetylene	VI Gas	2 cyl	gas
Activated carbon	Calgon Corporation	30 bag	solid
All-weather patch material	Revere Chemical	55 G	solid
Amersite 2	Valley Freight Syst.	55 G	liquid
Ashland MeOH	Ashland Chemical	5 G	
→ Benzyl acetate	Island Chemical	21x55G	liquid
Benzyl chloride	Velsicol Corporation	28x55G	liquid
Chlorine	VI Gas	1 cyl	gas
Chloroform	unknown	55 G	liquid
Crofox	Cerfact Laboratories	55 G	liquid
Crystal Clear floor finish	Cerfact Laboratories	2x20 G	liquid
Degreaser	unknown	55 G	liquid
Drewtrol 8500	Valley Freight Syst.	55 G	liquid
Ethyl alcohol	unknown	115x55	liquid
Filteraid	unknown	10x30G	solid
Glacial acetic acid	Celanese Chemical	13x55G	liquid
Glycol	Island Chemical	20x55G	liquid
Humisorb	Culligan	30 G	solid
Hydrochloric acid	Certified Laboratory	55 G	liquid
Hydrogen chloride	VI Gas	1 cyl	gas
Insulation (asbestos??)	unknown	13 box	solid
Insulation fiberglass	unknown	7 box	solid
Lubricating oil	Texaco	2x10 G	liquid
Lubricating oil	Texaco	5x55 G	liquid
Magnesium sulfate trihydrate	Tomita Pharmaceutica	6x25kg	solid
Methanol	Ashland Chemical	5x55 G	liquid
Methanol	unknown	3x55 G	liquid
Methyl isobutyl carbinol	Van Waters & Rogers	12x55G	liquid
Methyl isobutyl ketone	Ashland Chemical	55 G	liquid
Micro media filter sheets	Ertel Engineering	18 box	solid
Oxygen	VI Gas	3 cyl	gas
Oxygen	Santa Maria Gases	1 cyl	gas
Paints	unknown	44x5 G	liquid
Paints	unknown	53x1 G	liquid
Paints	International Paint	97x5 G	liquid
Paints	International Paint	21x1 G	liquid
Para-phenetidin	unknown	55 G	liquid
Pentosin	Deutsche Pentosin	20 L	liquid
Potassium acetate	Jarchem Industries	8x100#	solid
Potassium sulfate	unknown	50 bag	solid
Powdered filter media	Ionics	2 boxs	solid
Propane	unknown	4 cyl	gas
Purafil II	unknown	15x10G	solid
Quinine sulfate	Kimafarma	20 G	liquid
Rinseline injector fluid	Bob Chamber Ltd.	55 G	liquid

Rout	Cerfact Laboratories	20	G	solid
Salicylic acid	Rhone-Poulenc	27	drum	solid
Salt	unknown	2x30	G	solid
Soda ash	Allied Chemical	15x100		solid
Sodium acetate anhydrous	unknown	50	lb	solid
Sodium acetate anhydrous	Jarchem Industries	200	lb	solid
Sodium bicarbonate	Stauffer Chemical	8x100#		solid
Sodium hexa-meta phosphate	FMC	200	lb	solid
Sodium hydroxide	Mantek	55	G	liquid
Sodium hydroxide	Manuel del Valle Inc	12x55	G	liquid
Spent toluene/acetone	unknown	2x55	G	liquid
Sterling salt crystals	unknown	50	lb	solid
Sulfamic acid	Dupont	400	lb	solid
Tartaric acid	Pfizer Chemical	15x100		solid
Thinner	unknown	6x1	G	liquid
Thinner	Advance	55	G	liquid
Toluene	Ashland Chemical	3x55	G	liquid
Toluene	unknown	5x55	G	liquid
Triethylamine	Air Products	55	G	liquid
Waste oil	unknown	2x55	G	liquid
z Empty drums	unknown	130		n/a
z Miscellaneous unknowns	on site containers	25		misc.



WESTERN

SPILL PREVENTION &
EMERGENCY RESPONSE DIVISION

EPA PM
KODAMA

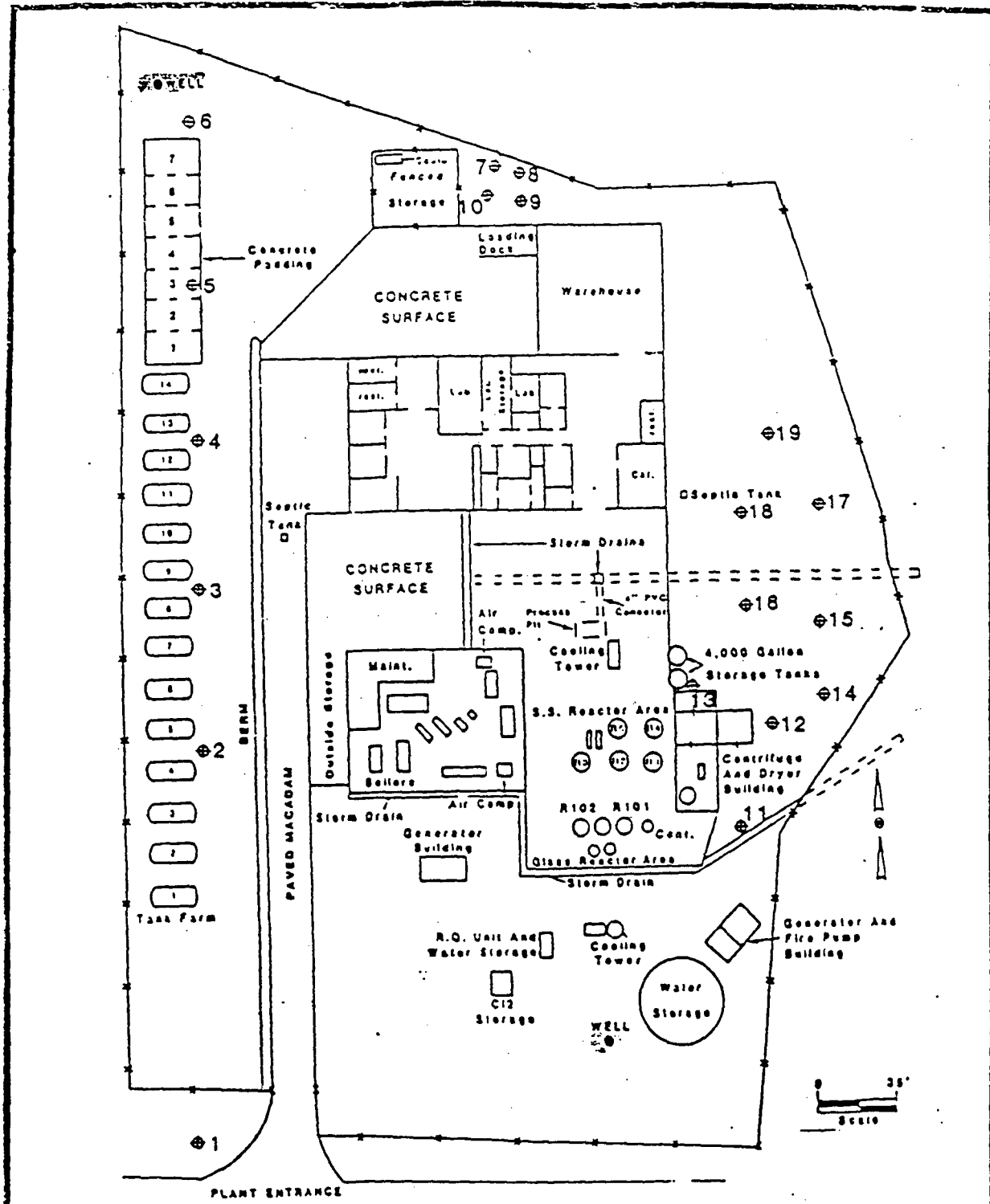
FIGURE 1
SITE LOCATION

In Association with ICF Technology Inc., C.C. Johnson & Associates, Inc., Resource Applications, Inc., Geo/Resource Consultants, Inc., and Environmental Toxicology International, Inc.

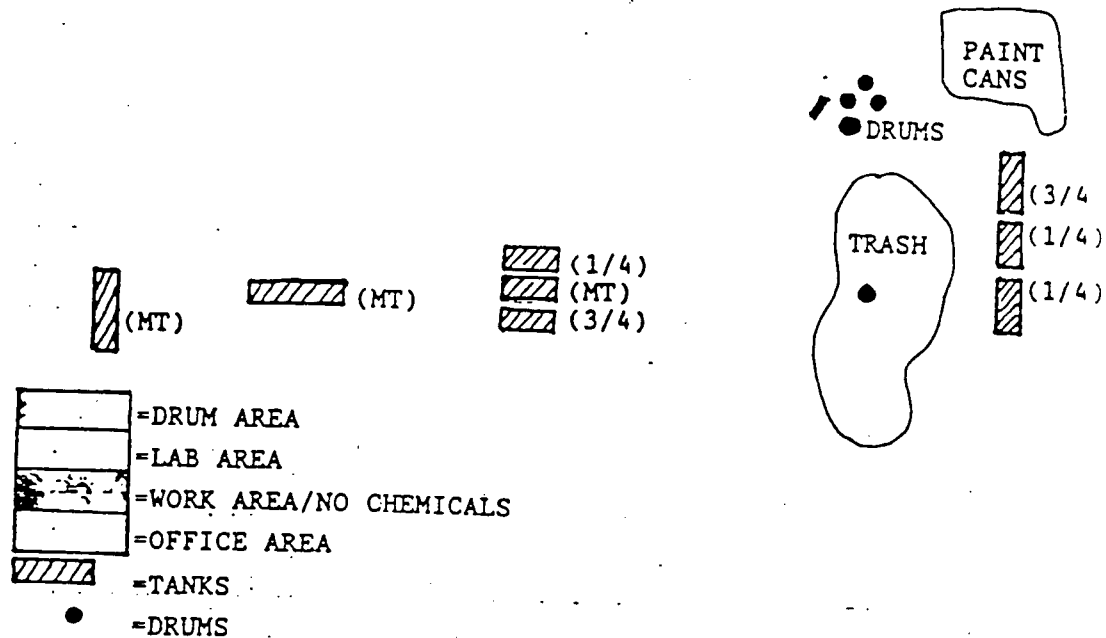
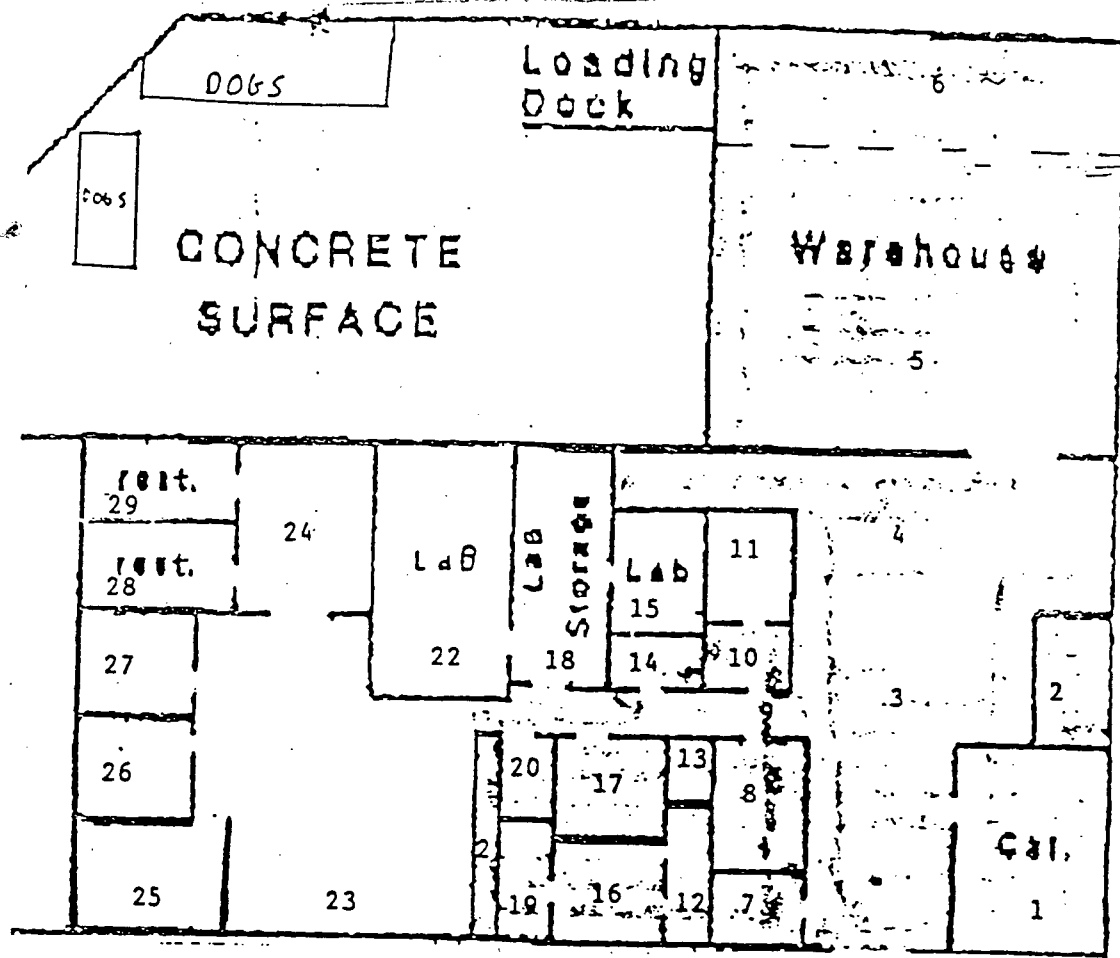
TAT PM
MENTZEL

VI CHEM SITE
ST. CROIX US VI

301606



WESTERN SPILL PREVENTION & EMERGENCY RESPONSE DIVISION	EPA PM KODAMA	FIGURE 2 SITE DIAGRAM
In Association with ICF Technology Inc., C.C. Johnson & Associates, Inc., Resource Applications, Inc., Geo/Resource Consultants, Inc., and Environmental Toxicology International, Inc.	TAT PM MENTZEL	VI CHEM SITE ST. CROIX US VI



APPENDIX I
PHOTOGRAPHS

301609

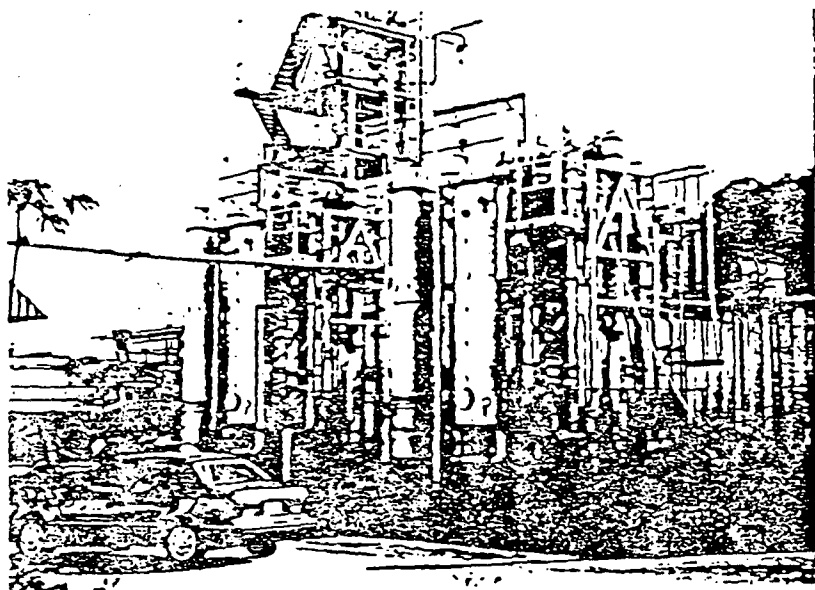


Photo #1. Virgin Island Chemical Company
Alcohol dehydration apparatus

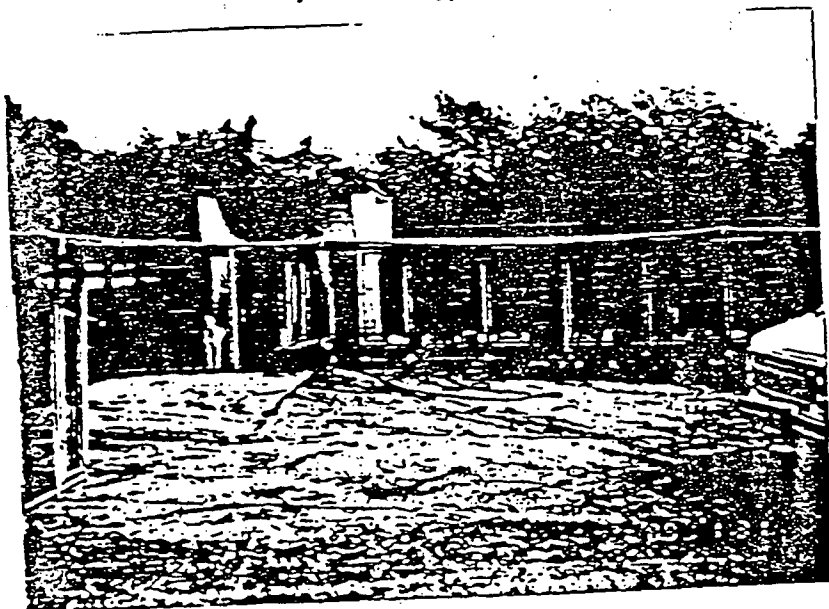


Photo #2. Dog kennel operating on site

301610

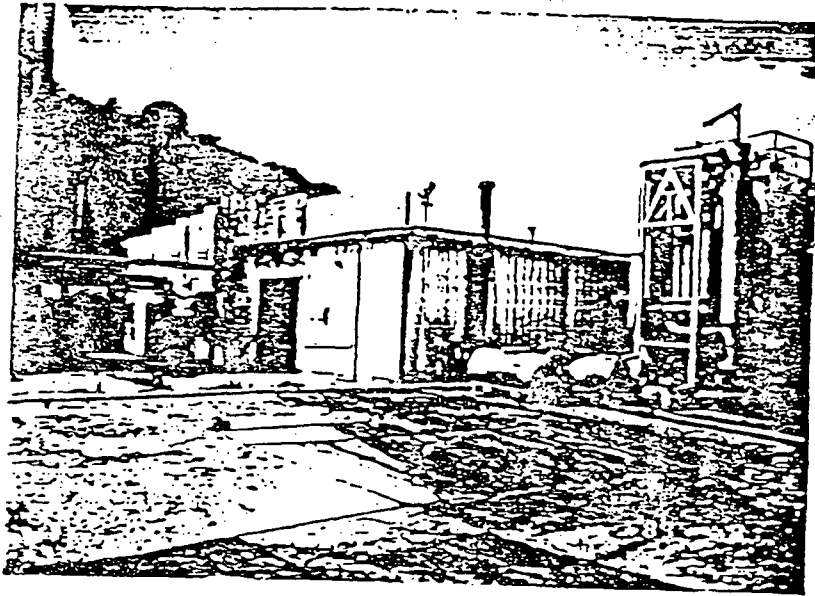


Photo #3. Maintenance building

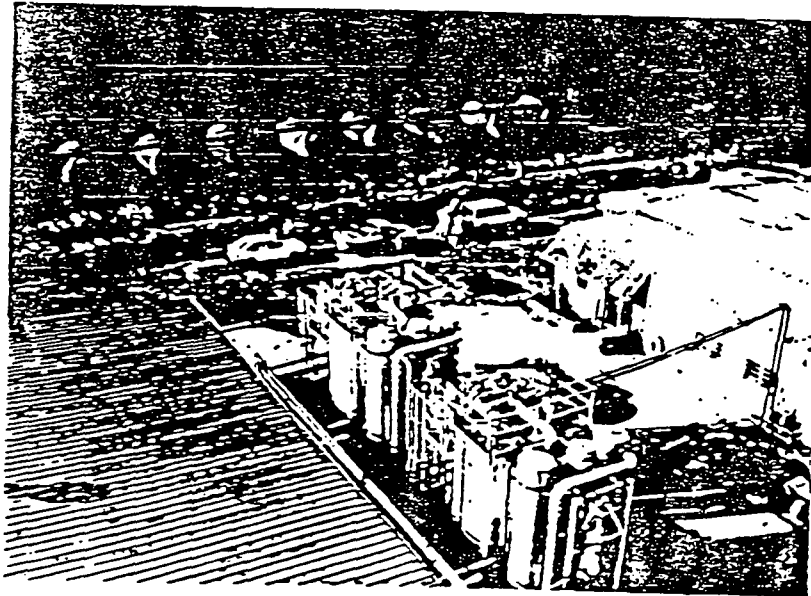


Photo #4. View of tanks, main building, and alcohol dehydration unit

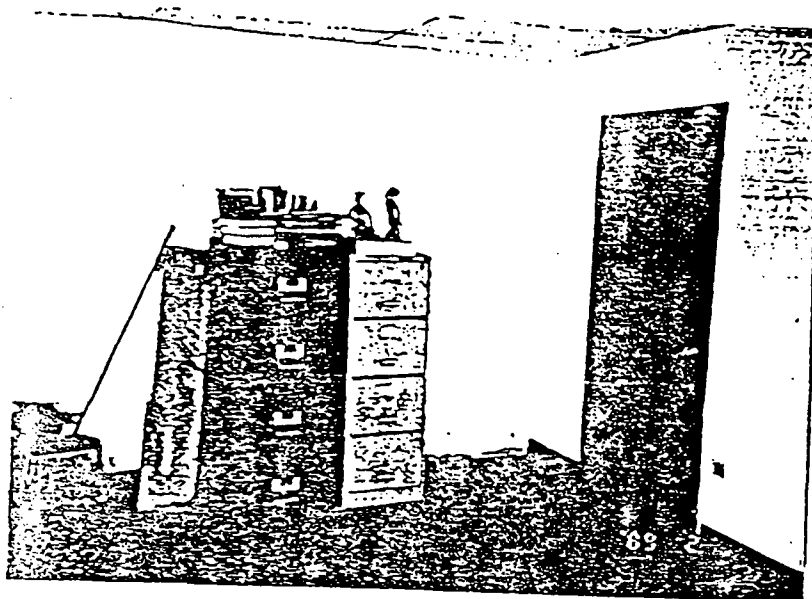


Photo #5. Main building office area 23



Photo #6. Area 22 lab in the main building

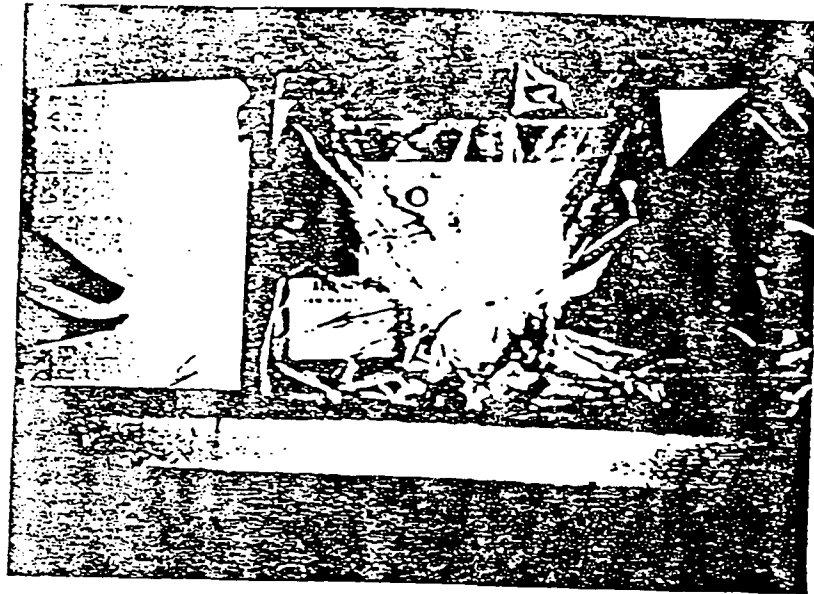


Photo #7. Virgin Island Chemical Company
Sodium metal in area 18



Photo #8. Area 18 chemical and glassware storage

301613

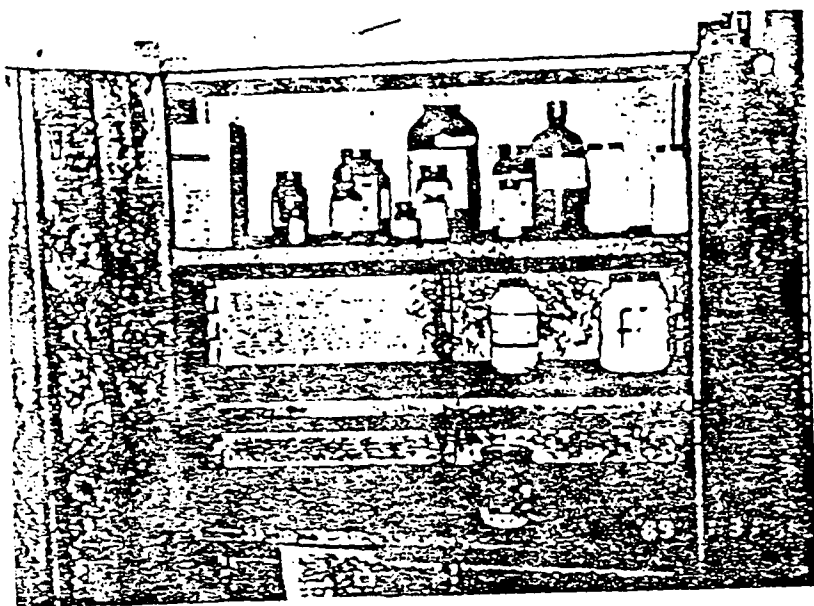


Photo #9. Incompatible storage of lab reagents



Photo #10. Incompatible and leaking storage of lab reagents

301614



Photo #11. Incompatible and leaking storage of lab reagents



Photo #12. Incompatible storage of lab reagents

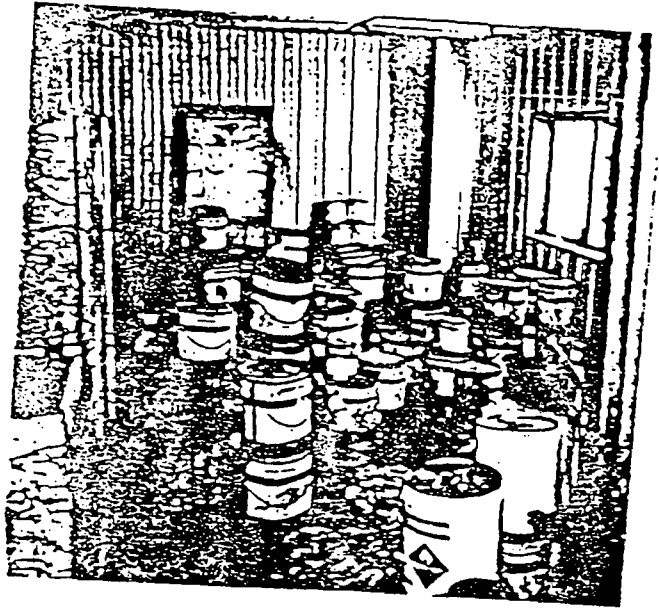


Photo #13. Paint cans in area 1

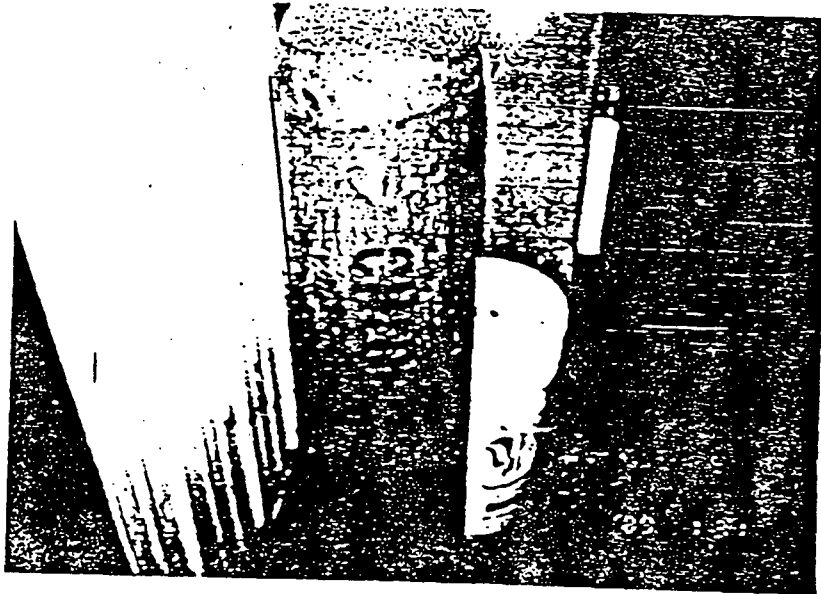


Photo #14. Cylinder of chlorine



Photo #15. Drums in area 4; note water on the floor



Photo #16. Drum contents undergoing a reaction

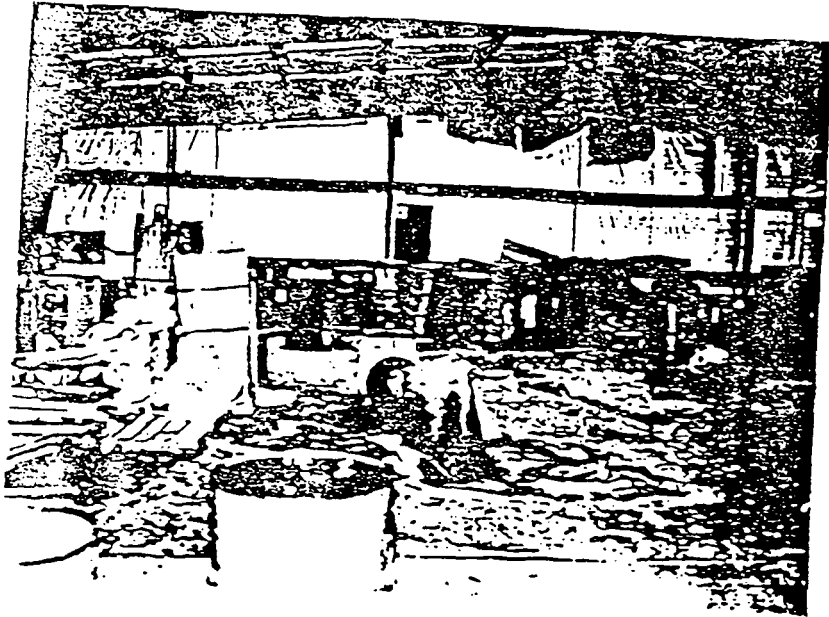


Photo #17. Virgin Island Chemical Company
Drums and debris in area 5



Photo #18. Drums in area 5

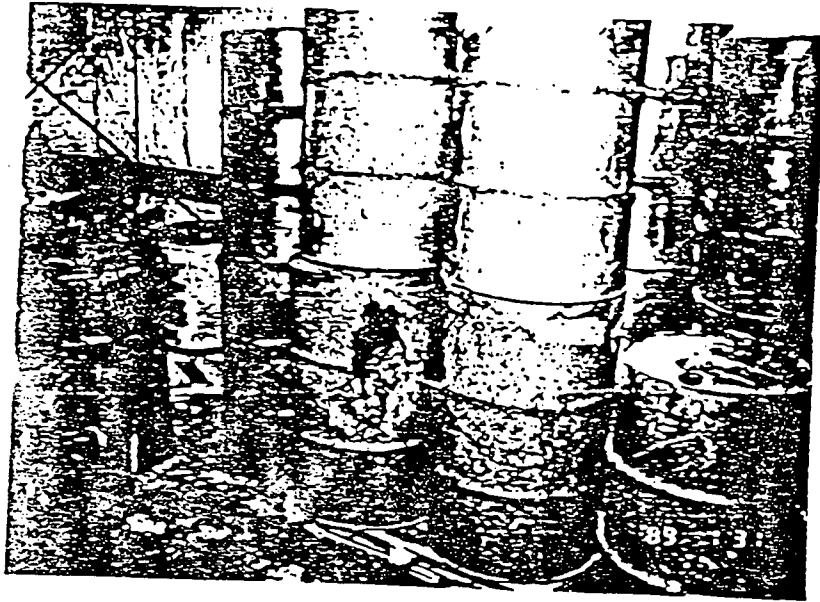


Photo #19. Deteriorating drums in area 6



Photo #20. Drums and floor contamination in area 5

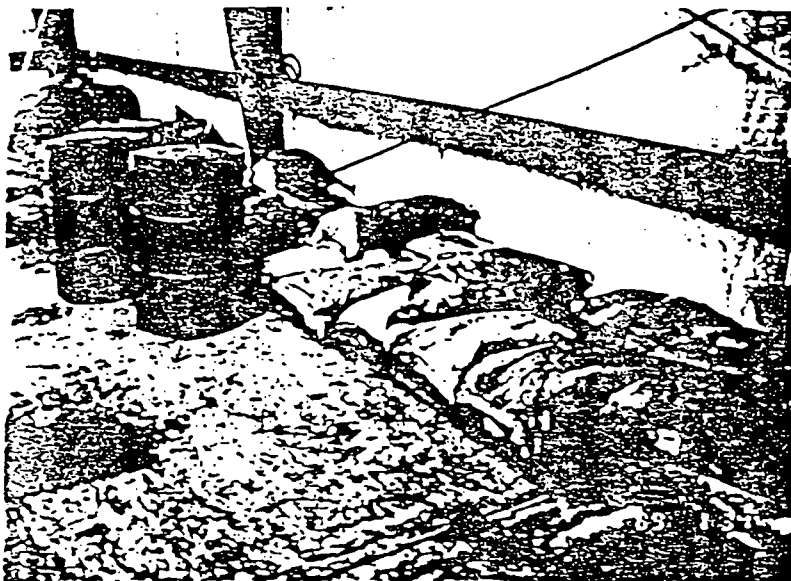


Photo #21. Deteriorating bags in area 6

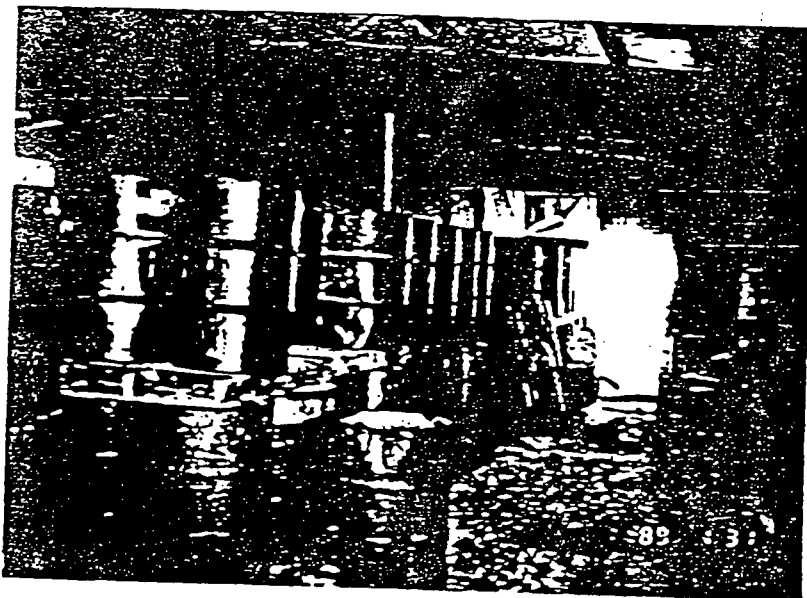


Photo #22. Drums in area 6

Appendix M
Laboratory Results

\\WORK\24231\02\WORKPLAN.REP

HARDING LAWSON ASSOCIATES

301621



Laboratories Inc.

Memorandum

To: J. Beck
From: D.W. McKennon
Date: October 15, 1984
Subject: ISLAND CHEMICAL ENVIRONMENTAL SAMPLES

On 9/17/84, we received several samples from Irv Cohen of Enviro Sciences Inc for analysis for various organic components.

We agreed to examine the samples for volatile organics via GC techniques, and then for nonvolatile organics like quinidine using HPLC techniques. Our investigation is complete, and data is attached.

DISCUSSION

I. GC ANALYSIS

Quantitable amounts of toluene were found in samples T8-1 and Tank-8. Also, quantitable amounts of pyridine were found in samples D-1, D-2, and D-5.

Qualitatively, the chromatograms were examined for additional peaks. Samples S4-2, D-5, T8-1, and T8-2 contain an unknown peak eluting between the pyridine and toluene peak. Tank-8 had an unidentifiable peak which eluted shortly after toluene.

II. HPLC

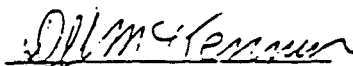
Quantitable amounts of quinidine and/or quinine were found in D-1, D-2, D-5, T8-1, Tank-8, Tank-4, and Tank-9.

Qualitatively, the HPLC chromatograms in many cases have some unidentified early eluting peaks which are not related to quinidine, quinine, or any of the other cinchona alkaloids.

DEPOSITION OF SAMPLES

On October 10, 1984, all samples were given to Al Kyles who is a representative of Enviro Sciences Inc.

Note: Due to the extreme rush to analyze these samples, limited precautions were taken to protect either GC or LC columns. Total replacement cost for columns is approximately \$960.


D.W. McKennon

DWM/hms
Attachment

cc: R. Willis
R. Wohl
R. Milos
I. Cohen/Enviro Sciences Inc

301622

<u>SAMPLE IDENTIFICATION</u>	<u>G.C. ANALYSIS*</u>		<u>L.C. ANALYSIS**</u>	
	<u>TOLUENE</u>	<u>PYRIDINE</u>	<u>QUINIDINE GLUCONATE</u>	<u>QUININE SULFATE</u>
S4-1	N/D	N/D	N/D	N/D
S4-2	N/D	N/D	N/D	N/D
S4-3	N/D	N/D	N/D	N/D
S4-4	N/D	N/D	N/D	N/D
S4-surface	N/D	N/D	N/D	N/D
D-1	N/D	920 ppm	452 ppm	82 ppm
D-2	N/D	507 ppm	96 ppm	N/D
D-3	N/D	N/D	N/D	N/D
D-4	N/D	N/D	N/D	N/D
D-5	N/D	3014 ppm	170 ppm	N/D
T8-1	694 ppm	N/D	274 ppm	101 ppm
T8-2	N/D	N/D	47 ppm	N/D
Tank-3	13,880 ppm	N/D	4050 ppm	1521 ppm
Tank-4	-	-	8227 ppm	2594 ppm
Tank-9	-	-	N/D	354 ppm
Tank-7	-	-	N/D	N/D
#4 Sample	-	-	N/D	N/D
#4-High Conc.	-	-	N/D	N/D

N/D = None Detected

*G.C. Reference Bk. 83-9, pp. 75-79, EGO

**L.C. Reference Bk. 83-11, pp. 22-30, MSM

To: Dr. W. B. Caldwell
From: G. Rudd
Date: October 19, 1984
Subject: Analysis of Soil Samples from Island Chemical by
Headspace Gas Chromatography

cc: W. Dunna
R. Wohl

Three soil samples received 10/15/84 from the Island Chemical site were examined by headspace gas chromatography for the presence of toluene and pyridine. The results are listed in the table below. Chromatograms of the three samples are attached. The large peaks observed at the beginning of each chromatographic run are artifacts of the headspace experiment.

<u>Sample</u>	<u>Toluene, ppm</u>	<u>Pyridine, ppm</u>
S4-1	<0.2	<0.2
H-22 1'A	none detected ¹	none detected
H-21 3'B	none detected	1.2

(1) Limit of detection ca. 0.1 ppm

Quantitation was performed by standard addition (1ppm) to the sample and comparison to the unspiked sample.

Chromatography Conditions

A. Toluene

Column: 6' x 2mm glass packed with 80/100 Carbowax C/
0.1% SP-1000
Temperatures: Injector - 250°C Detector - 275°C
Oven - 1 min @ 100°C; 200°C @ 15°C/min
Carrier: Nitrogen, 22 ml/min
Detector: FID

B. Pyridine

Column: 4' x 2mm glass packed with 60/80 Carbowax B/
4% Carbowax 20M/0.8% KOH

Temperatures: Injector - 250°C Detector - 275°C
Oven - 120°C isothermal
Carrier: Helium, 30 ml/min
Detector: FID

Assay Procedure

5.0 grams of sample were placed in a 30 ml serum bottle that was sealed with a Teflon lined septum. The sealed serum bottle containing the sample was equilibrated at 90°C for 1-1.5 hours. With a previously heated gas tight syringe, 0.5 ml of the headspace volume from the serum bottle was withdrawn and quickly injected into the gas chromatograph.

Reference

McNeal, T. and Breder, C.V., JAOAC, 65, 184-187 (1982).

Notebook Reference

GIR-1-143-146

G. I. Rudd / wsc
G. I. Rudd



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1157 ROUTE 10 RANDOLPH, NEW JERSEY 07069 201 584 0330

State Certified Drinking Water/Wastewater Laboratory
EST. 1978

HEADSPACE

Report Date: October 9, 1984

Lab. # 34624

VOLATILE ORGANICS BY PURGE AND TRAP GC/MS

Compounds detected in parts per million (milligrams/kilograms Dry Wgt. Bas

SAMPLE SOURCE: ENVIRO SCIENCES

SAMPLE ID: 1' B Hole #20

SAMPLE DATE: Sept. 18-19, 1984

TAKEN BY: Alan I. Kyler AT LAB DATE: 9/27/84

CHLOROMETHANE.....	_____	1,2-DICHLOROPROPANE.....	_____
BROMOMETHANE.....	_____	c-1,3-DICHLOROPROPENE.....	_____
DICHLORODIFLUOROMETHANE.....	_____	t-1,3-DICHLOROPROPENE.....	_____
VINYL CHLORIDE.....	_____	TCE (TRICHLOROETHYLENE).....	_____
CHLOROETHANE.....	_____	DIBROMOCHLOROMETHANE.....	_____
METHYLENE CHLORIDE.....	_____	BENZENE.....	_____
ACETONE.....	_____	DIISOPROPYL ETHER.....	_____
TRICHLOROFLUOROMETHANE.....	_____	2-CHLOROETHYL VINYL ETHER.....	_____
1,1-DICHLOROETHYLENE.....	_____	HEXANE.....	_____
1,1-DICHLOROETHANE.....	_____	BROMOFORM.....	_____
t-1,2-DICHLOROETHYLENE.....	_____	1,1,2,2-TETRACHLOROETHANE.....	_____
CHLOROFORM.....	_____	PCE (TETRACHLOROETHYLENE).....	_____
FREON 113.....	_____	HEPTANE.....	_____
1,2-DICHLOROETHANE.....	_____	TOLUENE.....	0.16
t-BUTYL METHYL ETHER.....	_____	CHLOROBENZENE.....	_____
1,1,1-TRICHLOROETHANE.....	_____	ETHYLBENZENE.....	_____
CARBON TETRACHLORIDE.....	_____		
BROMODICHLOROMETHANE.....	_____		

For the above listed volatile pollutants, nothing detected at 0.01ppm sensitivity level.

X Other peaks detected. Fluorethyne * 0.45; 2-methylpropanol 0.20; pentane 0.01;

LT = Less than, GT=Greater than, ND=Not detected.

*NOTE: Possibly from plastic bag.

301626



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1157 ROUTE 10 RANDOLPH NEW JERSEY 07069 201 584 0330

State Certified Air/Soil Water/Wastewater Laboratory
10/1/83

HEADSPACE

Report Date: October 9, 1984

Lab. # 34625

VOLATILE ORGANICS BY PURGE AND TRAP GC/MS

Compounds detected in parts per million (milligrams/kilograms Dry Wgt. Bas

SAMPLE SOURCE: ENVIRO SCIENCES

SAMPLE ID: 4" B Hole #4

SAMPLE DATE: Sept. 18-19, 1984

TAKEN BY: Alan L. Kyler AT LAB DATE: 9/27/84

CHLOROMETHANE.....	_____	1,2-DICHLOROPROPANE.....	_____
BROMOMETHANE.....	_____	c-1,3-DICHLOROPROPENE.....	_____
DICHLORODIFLUOROMETHANE.....	_____	t-1,3-DICHLOROPROPENE.....	_____
VINYL CHLORIDE.....	_____	TCE (TRICHLOROETHYLENE).....	_____
CHLOROETHANE.....	_____	DIBROMOCHLOROMETHANE.....	_____
METHYLENE CHLORIDE.....	_____	BENZENE.....	_____
ACETONE.....	_____	DIISOPROPYL ETHER.....	_____
TRICHLOROFLUOROMETHANE.....	_____	2-CHLOROETHYL VINYL ETHER.....	_____
1,1-DICHLOROETHYLENE.....	_____	HEXANE.....	_____
1,1-DICHLOROETHANE.....	_____	BROMOFORM.....	_____
t-1,2-DICHLOROETHYLENE.....	_____	1,1,2,2-TETRACHLOROETHANE.....	_____
CHLOROFORM.....	_____	PCE (TETRACHLOROETHYLENE).....	_____
FREON 113.....	_____	HEPTANE.....	_____
1,2-DICHLOROETHANE.....	_____	TOLUENE.....	_____
t-BUTYL METHYL ETHER.....	_____	CHLOROBENZENE.....	_____
1,1,1-TRICHLOROETHANE.....	_____	ETHYLBENZENE.....	_____
CARBON TETRACHLORIDE.....	_____		
BROMODICHLOROMETHANE.....	_____		

☒ For the above listed volatile pollutants, nothing detected at 0.01ppm sensitivity level.

☒ Other peaks detected. fluorethyne #0.38; 2-methyl propanol 0.16

LT = Less than, GT=Greater than, ND=Not detected. *NOTE: Possibly from plastic bag.

301627



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10 RANDOLPH NEW JERSEY 07869 201 584 0330

State Certified Drinking Water/Wastewater Laboratory
J.E. 14106

HEADSPACE

Report Date: October 9, 1984

Lab. # 34626

VOLATILE ORGANICS BY PURGE AND TRAP GC/MS

Compounds detected in parts per million (milligrams/kilograms Dry Wgt. Basis)

SAMPLE SOURCE: ENVIRO SCIENCES

SAMPLE ID: 3' B-Hole #13

SAMPLE DATE: Sept. 18-19, 1984

TAKEN BY: Alan L. Kyler AT LAB DATE: 9/27/84

CHLOROMETHANE.....	_____	1,2-DICHLOROPROPANE.....	_____
BROMOMETHANE.....	_____	c-1,3-DICHLOROPROPENE.....	_____
DICHLORODIFLUOROMETHANE.....	_____	t-1,3-DICHLOROPROPENE.....	_____
VINYL CHLORIDE.....	_____	TCE (TRICHLOROETHYLENE).....	_____
CHLOROETHANE.....	_____	DIBROMOCHLOROMETHANE.....	_____
METHYLENE CHLORIDE.....	_____	BENZENE.....	_____
ACETONE.....	_____	DIISOPROPYL ETHER.....	_____
TRICHLOROFLUOROMETHANE.....	_____	2-CHLOROETHYL VINYL ETHER.....	_____
1,1-DICHLOROETHYLENE.....	_____	HEXANE.....	_____
1,1-DICHLOROETHANE.....	_____	BROMOFORM.....	_____
t-1,2-DICHLOROETHYLENE.....	_____	1,1,2,2-TETRACHLOROETHANE.....	_____
CHLOROFORM.....	_____	PCE (TETRACHLOROETHYLENE).....	_____
FREON 113.....	_____	HEPTANE.....	_____
1,2-DICHLOROETHANE.....	_____	TOLUENE.....	_____
t-BUTYL METHYL ETHER.....	_____	CHLOROBENZENE.....	_____
1,1,1-TRICHLOROETHANE.....	_____	ETHYLBENZENE.....	_____
CARBON TETRACHLORIDE.....	_____		
BROMODICHLOROMETHANE.....	_____		

X For the above listed volatile pollutants, nothing detected at 0.01ppmsensitivity level.

X Other peaks detected. fluorethyne @ 0.31; 2-methyl propanol 0.16

LT = Less than, GT=Greater than, ND=Not detected.

*NOTE: Possibly from plastic bag

301628



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10 RANDOLPH NEW JERSEY 07869 201 584 0330

State Certified Drinking Water/Wastewater Laboratory
10/1/84

HEADSPACE

Report Date: October 9, 1984

Lab. # 34627

VOLATILE ORGANICS BY PURGE AND TRAP GC/MS

Compounds detected in parts per million (milligrams/kilograms) Dry Wgt. Ba

SAMPLE SOURCE: ENVIRO SCIENCES

SAMPLE ID: 41 B Hole 21

SAMPLE DATE: Sept. 18-19, 1984

TAKEN BY: Alan L. Kyler AT LAB DATE: 9/27/84

CHLOROMETHANE.....	_____	1,2-DICHLOROPROPANE.....	_____
BROMOMETHANE.....	_____	c-1,5-DICHLOROPROPENE.....	_____
DICHLORODIFLUOROMETHANE.....	_____	t-1,5-DICHLOROPROPENE.....	_____
VINYL CHLORIDE.....	_____	TCE (TRICHLOROETHYLENE).....	_____
CHLOROETHANE.....	_____	DIBROMOCHLOROMETHANE.....	_____
METHYLENE CHLORIDE.....	_____	BENZENE.....	_____
ACETONE.....	_____	DIISOPROPYL ETHER.....	_____
TRICHLOROFLUOROMETHANE.....	_____	2-CHLOROETHYL VINYL ETHER.....	_____
1,1-DICHLOROETHYLENE.....	_____	HEXANE.....	_____
1,1-DICHLOROETHANE.....	_____	BROMOFORM.....	_____
t-1,2-DICHLOROETHYLENE.....	_____	1,1,2,2-TETRACHLOROETHANE.....	_____
CHLOROFORM.....	_____	PCE (TETRACHLOROETHYLENE).....	_____
FREON 113.....	_____	HEPTANE.....	_____
1,2-DICHLOROETHANE.....	_____	TOLUENE.....	_____
t-BUTYL METHYL ETHER.....	_____	CHLOROBENZENE.....	_____
1,1,1-TRICHLOROETHANE.....	_____	ETHYLBENZENE.....	_____
CARBON TETRACHLORIDE.....	_____		
BROMODICHLOROMETHANE.....	_____		

☒ For the above listed volatile pollutants, nothing detected at 0.01ppm sensitivity level.

☒ Other peaks detected. fluorethyne* 0.06; 2-methyl propanol 0.47, 2-methyl-1-heptene 0.21;

pyridine 0.02

LT = Less than, GT=Greater than, ND=Not detected.

NOTE: *Possibly from plastic bag.

301629

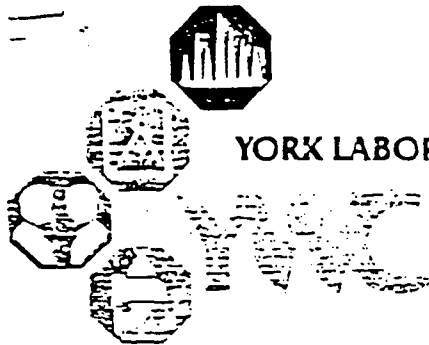
ENVIRONMENTAL SCIENCES INC.

CHAIN OF CUSTODY RECORD

19 COPELAND RD., DENVILLE NEW JERSEY 07834

Installation: <i>Bealco Lbr. Inc.</i> <i>Island Chemical Co. Inc.</i> <i>St. Croix, Virgin Islands</i>				Samplers: (Signature) <i>Alan J. Kyle</i>			
Survey No.:							
Sample No.	Station Location	Date	Time	Sample Type		No. of Containers	
				Comp.	Grab		
1'8 20		10-19-68			X	1	
1'8 21		"			X	1	
3'8 13		"			X	1	
4'8 21		"			X	1	
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time			
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time			
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time			
Relinquished by: (Sign.)		Rec'd by Laboratory for field analysis (Sign.)		Date/Time			
Dispatched by: (Sign.) <i>Alan J. Kyle</i>		Date/Time	Rec'd for Laboratory by <i>[Signature]</i>		Date/Time <i>7/21/1120</i>		
Method of Shipment: <i>Delivered to Lbr</i>							

301630



YORK LABORATORIES DIVISION

CERTIFIED REPORT TRANSMITTAL

REPORT NUMBER 30850-145

DATE November 12, 1984

CLIENT **Enviro-Sciences, Inc.**
19 Copeland Road
Denville, New Jersey 07834

ATTENTION **Mr. Irv Cohen**

The above referenced report is enclosed. Copies of this report and supporting data will be retained in our files in the event they are required for future reference.

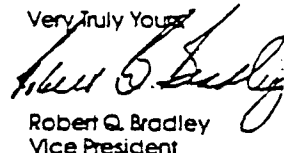
If there are any questions concerning this report, please do not hesitate to contact us.

Any samples submitted to our Laboratory will be retained for a maximum of sixty (60) days from receipt of this report, unless other arrangements are desired.

Naturally, as in the past, our staff will be pleased to quote on any future requirements you may have. In addition to the service provided, we also offer the following:

- Hazardous Waste Analyses
- Product Evaluation/R&D
- Water and Wastewater Analyses
- Air and Process Gas Analyses
- Industrial Hygiene Surveys
- Metallurgical Analyses
- Microbiological Analyses
- Mass Spectrometry Services

Very Truly Yours



Robert Q. Bradley
Vice President

Y&C, INC. • 250 Morris Avenue • Monroe, Connecticut 06468 • (203) 251-4458

301631

November 12, 1984

30850-145
ENVIRO-SCIENCES, INC.
19 Copeland Road
Denville, New Jersey 07834

Attention: Mr. Irv Cohen

PURPOSE

Nine (9) soil samples were submitted to York Laboratories for determination of toluene and pyridine on a quantitative basis. Other compounds found in the samples were also indentified and are reported on a semi-quantitative basis. The samples were also analyzed for oil and grease.

METHODOLOGIES

The samples were analyzed for toluene using the dynamic headspace Gas Chromatograph/Mass Spectrometry method in accordance with Chemical Analysis of Sediments and Elutriate Testing, EPA 1979. A Tekmar Model LSC-3 Purge and Trap interfaced with an HP 5995C GC/MS/DS were used for the analysis.

The samples were analyzed for pyridine and oil and grease in accordance with EPA/CE-81-1 Procedures for Handling and Chemical Analysis of Sediments and Water Samples, May 1981. An HP 5995C GC/MS/DS was used for the pyridine analysis.

RESULTS

The results are listed in the following tables.

Prepared by: Gail D Sprio
Gail D. Sprio
Senior Chemist

Approved by: Jeffrey C. Curran
Jeffrey C. Curran
Chief Chemist

GDS/JCC/mz

TABLE 1
 ENVIRO-SCIENCES, INC.
TOLUENE AND PYRIDINE RESULTS

<u>Sample Identification</u>	<u>Toluene ug/kg (ppb)</u>	<u>Pyridine ug/kg (ppb)</u>
20 Septic (Auger)	540	<1,000
20 A-2'	690	<1,000
21 A-2'	15	<1,000
21 A-4'	43	<1,000
25 - 2'	210	13,000
27 - 2'	16	26,000
32 - 2'	15	43,000
35 - 4'	8	<1,000
36 - 2'	7	<1,000

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301633

TABLE 2
ENVIRO-SCIENCES, INC.

<u>Sample Identification</u>	<u>Compounds Found</u>	<u>Concentration*</u> (ug/kg)
20 Septic (Auger)	1,1-methylene bis-benzene	8,400
	diphenyl methanone	64,000
	methylene chloride	<5 (1.5)
	chloroform	12
	benzene	<5 (0.5)
20 A - 2'	methylene chloride	<5 (2.3)
	chloroform	5
	benzene	<5 (0.9)
	ethyl benzene	23
	total xylenes	500
21 A - 2'	methylene chloride	<5 (2.4)
	chloroform	<5 (3.3)
	trichloroethylene	<5 (0.8)
	benzene	<5 (0.8)
	tetrachloroethylene	<5 (0.9)
	ethyl benzene	7
21 A - 4'	methylene chloride	<5 (2.2)
	chloroform	<5 (2.6)
	benzene	<5 (0.4)
25 - 2'	methylene chloride	<5 (1.7)
	chloroform	5
	benzene	<5 (0.4)
27 - 2'	methylene chloride	<5 (2.2)
	chloroform	19
	benzene	<5 (0.6)
32 - 2'	methylene chloride	<5 (4.4)
	chloroform	<5 (4.2)
	1,1,1-trichloroethane	<5 (0.8)
	benzene	<5 (0.8)
35 - 4'	methylene chloride	<5 (2.4)
	chloroform	13
	1,1,1-trichloroethane	11
	benzene	<5 (0.4)
36 - 2'	methylene chloride	<5 (1.6)
	chloroform	<5 (1.4)
	benzene	<5 (0.2)

*Results are reported on a semi-quantitative basis.

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26-31

TABLE 3
ENVIRO-SCIENCES, INC.
OIL AND GREASE RESULTS

<u>Sample Identification</u>	<u>Oil And Grease mg/kg (ppm)</u>
20 Septic (Auger)	241
20 A - 2'	566
21 A - 2'	1,500
21 A - 4'	27.9
25 - 2'	89.6
27 - 2'	187
32 - 2'	50.6
35 - 4'	39.5
36 - 2'	965

301635



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, BAMDOLPH, NEW JERSEY 07402 201-564-0130

SOIL SAMPLE

NJDEP Certified Drinking Water Laboratory ID #14116

REPORT DATE: July 31, 1985

LAB # 42001

CLIENT: ENVIRO SCIENCE - ICC (Berlex)

SAMPLE ID: Drain Line #2

SAMPLE DATE: 6/7/85

SAMPLED BY: A. Kyle

AT LAB DATE: 6/10/85

VOLATILE ORGANICS BY PURGE AND TRAP

By GC BTX/HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	-----	X
BROMOMETHANE	-----	X
VINYL CHLORIDE	-----	X
CHLOROETHANE	-----	X
METHYLENE CHLORIDE	-----	1,240
ACETONE	-----	X
1,1-DICHLOROETHYLENE	-----	X
1,1-DICHLOROETHANE **	-----	X
1,2-DICHLOROETHYLENE	-----	X
CHLOROFORM	-----	68
1,2-DICHLOROETHANE	-----	X
t-BUTYL METHYL ETHER	-----	X
1,1,1-TRICHLOROETHANE	-----	X
CARBON TETRACHLORIDE	-----	10
BROMODICHLOROMETHANE	-----	X
1,2-DICHLOROPROPANE	-----	X

A1 c-1,3-DICHLOROPROPENE	-----	X
c-1,3-DICHLOROPROPENE	-----	X
TCE (TRICHLOROETHYLENE)	-----	X
A1 1,1,2-TRICHLOROETHANE	-----	X
DIBROMOCHLOROMETHANE	-----	X
BENZENE	-----	X
DIISOPROPYL ETHER	-----	X
2-CHLOROETHYL VINYL ETHER	-----	X
BROMOFORM	-----	X
1,1,2,2-TETRACHLOROETHANE	-----	X
PCE (TETRACHLOROETHYLENE)	-----	X
TOLUENE	-----	5,600
CHLOROBENZENE	-----	X
ETHYLBENZENE	-----	9
m-XYLENE	-----	X
A1 o-XYLENE	-----	X
p-XYLENE	-----	X

*Compounds co-elute (could be either material).

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

LT=Less Than, GT=Greater Than
dwb=Dry Weight Basis. X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of: _____

X Unknown peaks detected (retention time, estimated amount): Xylenes ---10; 10 unknown hydrocarbon peaks ranging from 2 to 10 mg/kg.

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

INDUSTRIAL CORROSION MGMT., INC.

301636



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANOLPH, NEW JERSEY 07239 TEL 534-0130

NUDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 42892

CLIENT: ENVIRO SCIENCES, INC

SAMPLE SOURCE: ICC (BERLEX) PROJECT

SAMPLE ID: Drain Line #1

SAMPLE DATE: 6/7/85

SAMPLED BY: A. Kyles

AT LAB DATE: 6/15/85

SOIL SAMPLE
LABORATORY ANALYSIS
REPORT

Identification of Black Soil:

Parameter	Result
Benzene	0.10
Toluene	135
Ethylbenzene	0.25
M-Xylene	0.33
O,P-Xylene	0.27

Sample has "Toluene like" or solvent odor.

UNKNOWN PEAKS

R.T. 6.89 at 40 mg/kg
R.T. 10.81 at 2 mg/kg

All results reported in mg/kg.

We thank you for this opportunity to serve you. If you have any questions,
please do not hesitate to call.

INDUSTRIAL CORROSION MANAGEMENT, INC.

Edwin Tichenor
Vice President

ET/jmg
vcl.
--Less Than

301637

LAB NO. 42885

Pit duplicate (liquid) Priority Pollutants +40
(Process Pit)

Samples not analyzed because sample volume too small.

301638



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

SOIL
SAMPLE

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07069 201-534-3330

NJDEP Certified Drinking Water/
Wastewater Laboratory 10 #14116

REPORT DATE: July 31, 1985

LAB # 42886 & 42887-COMPOSITE

CLIENT: ENVIRO SCIENCES

SAMPLE SOURCE: ICC (Berlex)

SAMPLE DATE: 6/14/85

SAMPLED BY: A.Xyles

AT LAB DATE: 6/18/85

PRIORITY POLLUTANT VOLATILE ORGANICS + 40
by GC/MS + 15 PEAKS

Parameter	Result	Parameter	Result
acrolein*	X	1,2-dichloropropane	X
acrylonitrile*	X	1,3-dichloropropylene	X
benzene	X	ethylbenzene	X
bromoform	X	methyl bromide	X
carbon tetrachloride	X	methyl chloride	X
chlorobenzene	X	methylene chloride	125
chlorodibromomethane	X	1,1,2,2-tetrachloroethane	X
chloroethane	X	tetrachloroethylene	X
2-chloroethylvinyl ether	X	toluene	1,560
chloroform	220	1,2-trans-dichloroethylene	X
dichlorobromomethane	X	1,1,1-trichloroethane	X
1,1-dichloroethane	X	1,1,2-trichloroethane	X
1,2-dichloroethane	X	trichloroethylene	X
1,1-dichloroethylene	X	vinyl chloride	X

Results reported in mg/kg (ppm), dry weight basis.

*Detection Limit 100 ppm

LT=Less than

X=Not detected

OTHER COMPOUNDS DETECTED
APPROXIMATE CONCENTRATIONS

benzyl acetate 22
chloromethyl benzene 1430
1-chloro-2-methyl benzene 40

INDUSTRIAL CORROSION MANAGEMENT, INC.

Edwin Tichenor
Edwin Tichenor
Vice President

ET/jmg

301639



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Cert. for Drinking Water/
Wastewater Laboratory 10 #14116

REPORT DATE: July 31, 1985

LAB # 42986 & 42987 COMPOSITE

SOIL SAMPLE

CLIENT: ENVIRO SCIENCE

SAMPLE SOURCE: ICC (Berlex)

SAMPLE DATE: 6/14/85 SAMPLED BY: A. Ryles AT LAB DATE: 6/18/85

PESTICIDE & PCB EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS

Parameter	Result
Aldrin	LT 2
a-BHC	LT 2
b-BHC	LT 2
d-BHC	LT 2
g-BHC	LT 2
Chlordane	LT 12
4,4'-DDO	LT 3
4,4'-DDE	LT 3
4,4'-DDT	LT 3
Dieldrin	LT 3
Endosulfan I	LT 3
Endosulfan II	LT 3
Endosulfan Sulfate	LT 3
Endrin	LT 3
Endrin Aldehyde	LT 3
Heptachlor	LT 3
Heptachlor Epoxide	LT 3
Toxaphene	LT 12
PCB-1016	LT 45
PCB-1221	LT 45
PCB-1232	LT 45
PCB-1242	LT 45
PCB-1248	LT 45
PCB-1254	LT 45
PCB-1260	LT 45

All results are reported in $\mu\text{g/kg}$ (ppm), dry weight basis.

INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichagor
Edwin Tichagor
Vice President

ET/jmg
LT=Less Than
X=Not Detected

301640



INDUSTRIAL
CORROSION SOIL SAMPLE
MANAGEMENT
INCORPORATED

Wastewater Laboratory ID #14116 Pg. 9

REPORT DATE: July 31, 1985

LAB # 42986 & 42887-COMPOSITE

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES

SAMPLE SOURCE: ICC (Berlex)

SAMPLE DATE: 6/14/85 SAMPLED BY: A.Kyles AT LAB DATE: 6/18/85

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS + 40
by GC/MS + 15 PEAKS

Parameter	Result	Parameter	Result
acenaphthene -----	X	diethyl phthalate -----	Y
acenaphthylene -----	X	dimethyl phthalate -----	Y
anthracene -----	X	di-n-butyl phthalate -----	X
benzidine -----	X	2,4-dinitrotoluene -----	X
benzo(a)anthracene -----	X	2,6-dinitrotoluene -----	X
benzo(a)pyrene -----	X	di-n-octyl phthalate -----	X
3,4-benzofluoranthene -----	X	1,2-diphenylhydrazine(as azobenzene)-	X
benzo(ghi)perylene -----	X	fluoranthene -----	X
benzo(k)fluoranthene -----	X	fluorene -----	X
bis(2-chloroethoxy)methane -----	X	hexachlorobenzene -----	Y
bis(2-chloroethyl)ether -----	X	hexachlorobutadiene -----	X
bis(2-chloroisopropyl)ether -----	X	hexachlorocyclopentadiene -----	Y
bis(2-ethylhexyl)phthalate -----	X	hexachloroethane -----	Y
4-bromophenyl phenyl ether -----	X	indeno(1,2,3-cd)pyrene -----	Y
butylbenzyl phthalate -----	X	isophorone -----	Y
2-chloronaphthalene -----	X	naphthalene -----	Y
4-chlorophenyl phenyl ether -----	X	nitrobenzene -----	X
chrysene -----	X	N-nitrosodimethylamine -----	X
dibenzo(a,h)anthracene -----	X	N-nitrosodi-n-propylamine -----	X
1,2-dichlorobenzene -----	X	N-nitrosodiphenylamine -----	X
1,3-dichlorobenzene -----	X	phenanthrene -----	Y
1,4-dichlorobenzene -----	X	pyrene -----	Y
3,3-dichlorobenzidine -----	X	1,2,4-trichlorobenzene -----	Y

None of the above listed Priority Pollutants detected at a sensitivity level of 450 mg/kg (ppm) dry weight basis. **

LT=Less Than

X=Not Detected **Large dilution necessary due to high concentration of benzyl acet

APPROXIMATE CONCENTRATION
OTHER COMPOUNDS DETECTED

11/30/85
benzyl acetate ----- 170,000
benzene methanol ----- 15,000
1,1'-[oxybis (methylene)
bis]benzene ----- 4,000

Chloromethyl benzene ----- 4,400
diphenyl methanone ----- 30,000
9H-fluorene-9-one ----- 3,000

All results reported in mg/kg (ppm), dry weight basis.

INDUSTRIAL CORROSION MGMT.,

Edwin Lichner

ET/1mo

301641



1152 ROUTE 10, RANDOLPH, NEW JERSEY 07066 201-344-0330

INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

SOIL SAMPLE

NJDEP Certified Drinking Water/Wastewa.
Laboratory ID #14116

REPORT DATE: July 31, 1985

LAB # 42886 & 42887 COMPOSITE

CLIENT: ENVIRO SCIENCES

SAMPLE SOURCE: IGC (Berlex)

SAMPLE DATE: 6/14/85 SAMPLED BY: A. Kyle AT LAB DATE: 6/18/85

ACID EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS+10 PEAKS

ACID EXTRACTABLES PRIORITY POLLUTANTS + 10 Peaks

2-chlorophenol	-----	X
2-nitrophenol	-----	X
phenol	-----	X
2,4,-dimethylphenol	-----	X
2,4,-dichlorophenol	-----	X
pentachlorophenol	-----	X
2,4-dinitrophenol	-----	X
4,6-dinitro-o-cresol	-----	X
4-nitrophenol	-----	X
2,4,6-trichlorophenol	-----	X
4-chloro-3 methyl phenol	-----	X

None of the above listed Priority Pollutants detected
at a sensitivity level of 450 mg/kg (ppm) dry weight basis.

OTHER COMPOUNDS DETECTED APPROXIMATE CONCENTRATIONS

No other Phenolic compounds detected at a sensitivity
of 500 mg/kg (ppm) dry weight basis. **

INDUSTRIAL CORROSION MANAGEMENT, INC.

** Large dilution necessary due to high concentration
of benzyl acetate.

ET/Jmg

LT=Less Than

X=Not Detected

Edwin Tichanor
Edwin Tichanor
Vice President

301642



INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

SOIL SAMPLE

 NJDEP Certified Drinking Water
Wastewater Laboratory ID #14116
REPORT DATE: July 31, 1985LAB # 42886 & 42887 Composite

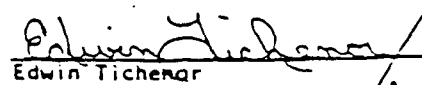
1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201 584 0101

CLIENT: ENVIRO SCIENCESSAMPLE SOURCE: ICC (Berlex)SAMPLE DATE: 6/14/85 SAMPLED BY: A. Kyles AT LAB DATE: 6/18/85PRIORITY POLLUTANTS + 40TOXIC POLLUTANTS: Metals, Cyanide and Total Phenols

<u>PARAMETER</u>	<u>RESULT</u>
Total Antimony -----	<u>LT 118</u>
Total Arsenic -----	<u>40.0</u>
Total Beryllium -----	<u>LT 2.87</u>
Total Cadmium -----	<u>22.8</u>
Total Chromium -----	<u>592</u>
Total Copper -----	<u>327</u>
Total Lead -----	<u>688</u>
Total Mercury -----	<u>2.73</u>
Total Nickel -----	<u>134</u>
Total Selenium -----	<u>LT 1.08</u>
Total Silver -----	<u>LT 7.48</u>
Total Thallium -----	<u>LT 66.2</u>
Total Zinc -----	<u>3,594</u>
Total Cyanide -----	<u>1.44</u>
Total Phenol -----	<u>9.01</u>

All results are reported in mg/kg (ppm), dry weight basis.

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Very truly yours,
INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichenor
Vice President

 ET/jmq
 LT=Less Than
 X=Not Detected

301643



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10 RANDOLPH, NEW JERSEY 07069 201 384 8330

SOIL SAMPLE

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: July 31, 1985

LAB # 42889

CLIENT: ENVIRO SCIENCE ICC (Berlex)

SAMPLE ID: Dryer

SAMPLE DATE: 6/14/85

SAMPLED BY: A. Kyleu

AT LAB DATE: 6/18/85

VOLATILE ORGANICS BY PURGE AND TRAP
By GC BTX/HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	X
BROMOMETHANE	X
VINYL CHLORIDE	X
CHLOROETHANE	X
METHYLENE CHLORIDE	X
ACETONE	X
1,1-DICHLOROETHYLENE	X
1,1-DICHLOROETHANE **	X
1,1,2-DICHLOROETHYLENE	4.0
CHLOROFORM	340
1,2-DICHLOROETHANE	4.2
1-BUTYL METHYL ETHER	X
1,1,1-TRICHLOROETHANE	X
CARBON TETRACHLORIDE	X
BROMODICHLOROMETHANE	X
1,2-DICHLOROPROPANE	X

*Compounds co-elute (could be either material).

LT=Less Than, GT=Greater Than
dwb=Dry Weight Basis. X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of: 1 mg/kg dwb.

Unknown peaks detected (retention time, estimated amount):

*1,3-DICHLOROPROPENE	X
*1,3-DICHLOROPROPENE	X
TCE (TRICHLOROETHYLENE)	X
*1,1,2-TRICHLOROETHANE	X
DIBROMOCHLOROMETHANE	X
BENZENE	6.6
DIISOPROPYL ETHER	X
2-CHLOROETHYL VINYL ETHER	X
BROMOFORM	X
1,1,2,2-TETRACHLOROETHANE	X
PCE (TETRACHLOROETHYLENE)	X
TOLUENE	4,000
CHLOROBENZENE	X
ETHYLBENZENE	16.1
M-XYLENE	17.7
*O-XYLENE	15.1
P-XYLENE	

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

INDUSTRIAL CORROSION MGMT., INC.

301644

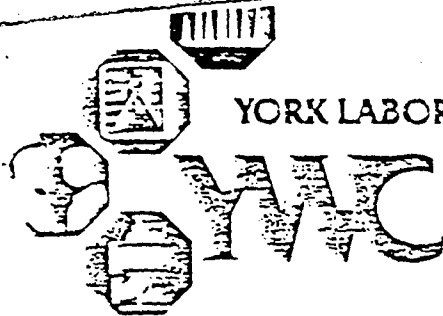


CHAIN OF CUSTODY RECORD

Page 13
9-12-
41, 42, 43

Installation: ICC (Berlex)				Samplers: (Signature) <i>Alan L. Kyle</i>			
Survey No.:							
Sample No.	Station Location	Analysis	Date	Time	Sample Type		No. of Containers
					Comp.	Grab	
1	Drain Line 42881	Toluene	6/8/85			X	2
	[* Identify the contents of the black soil sample.]						
2	Laboratory Pit 42883	Pyridine	6/14/85			X	4
3	Laboratory Pit-duplicate 42884	VOA / GC	6/14/85			X	2
	[* Time limit may have expired, if so do not run.]						
4	Pit-duplicate (liquid) 42885	Priority Pollutants	6/14/85	Held		X	2
5	Pit-Interface (liquid/sludge) 42886	combine and run	6/14/85			X	2
6	Pit-sludge 42887	priority pollutants	6/14/85	PP+40	*	X	4
	[* One container has a white lump, segregate it and analyze for quinidine.]						
7	Driver 42889	Toluene	6/14/85			X	2
Relinquished by: (Sign.) <i>Janet L. Miller</i>			Received by: (Sign.) <i>Robert H.</i>			Date/Time 6/18/85 12	
Relinquished by: (Sign.)			Received by: (Sign.)			Date/Time	
Relinquished by: (Sign.)			Received by: (Sign.)			Date/Time	
Relinquished by: (Sign.) <i>Robert H.</i>			Rec'd by Laboratory for field analysis (Sign.) <i>Alan L. Kyle</i>			Date/Time 6/18/85 12	
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by:		Date/Time		
Method of Shipment:				Express Air Freight *Benzel Acute			

301645



YORK LABORATORIES DIVISION

CERTIFIED REPORT TRANSMITTAL

REPORT NUMBER 30250-1195

DATE September 25, 1985

CLIENT Envirosciences, Inc.
19 Copeland Road
Denville, NJ 07834

ATTENTION Dr. A. Kyles

The above referenced report is enclosed. Copies of this report and supporting data will be retained in our files in the event they are required for future reference.

If there are any questions concerning this report, please do not hesitate to contact us.

Any samples submitted to our Laboratory will be retained for a maximum of sixty (60) days from receipt of this report, unless other arrangements are desired.

Naturally, as in the past, our staff will be pleased to quote on any future requirements you may have. In addition to the service provided, we also offer the following:

- Hazardous Waste Analyses
- Product Evaluation/R&D
- Water and Wastewater Analyses
- Air and Process Gas Analyses
- Industrial Hygiene Surveys
- Metallurgical Analyses
- Microbiological Analyses
- Mass Spectrometry Services

Very Truly Yours

Robert Q. Bradley

Robert Q. Bradley
Vice President

YVO, INC. • 200 Marica Road • Milford, Connecticut 06468 • (203) 261-0153

301646

September 25, 1985

30850-1195
ENVIROSCIENCES, INC.
19 Copeland Road
Denville, New Jersey 07834

Attention: Dr. A. Kyles

PURPOSE AND RESULTS

Eight (8) soil samples were submitted to York Laboratories for analysis. The samples were prepared and analyzed in accordance with Procedures for Handling and Chemical Analysis of Sediment and Water Samples, EPA/CE-31-1.

The results are reported in the following Tables.

Prepared by: Daniel F. Ott
Daniel F. Ott
Laboratory Manager

Approved by: Jeffrey C. Curran
Jeffrey C. Curran
Chief Chemist

DFO/JCC/md

TABLE 1
30850-1195
ENVIROSCIENCES, INC.

<u>Sample Identification</u>	<u>Toluene, ug/kg</u>
Drainline #1, 6/7/85 4 p.m.	140,000
Drainline #2, 6/7/85 4 p.m.	310,000
Dryer #1, 6/14/85 10 a.m.	1,500,000
Dryer #2, 6/14/85 10 a.m.	150,000

YWC, INC. • 200 Monroe • Rte. 1 • Monroe, Connecticut 06468 • (203) 261-4453

301648

TABLE 2
30850-1195
ENVIROSCIENCES, INC.

<u>Sample Identification</u>	<u>Pyridine, ug/kg</u>
Lab Pit #1, 6/14/85	3,900
Lab Pit #2, 6/14/85	<150
Lab Pit #3, 6/14/85	510
Lab Pit #4, 6/14/85	180

YWC, INC. • 200 Monroe Turnpike • Monroe, Connecticut 06468 • (203) 261-4453

301649



1112 ROUTE 10 RAMOOL, PH. NEW JERSEY 07069 201 581-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 43747

CLIENT: ENVIRO SCIENCES, INC. - ICC (BERLEX) PROJECT

SAMPLE ID: Dryer

SAMPLE DATE: 7/1/85

SAMPLED BY: Enviro Sciences

AT LAB DATE: 7/11/85

VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY / HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE	X	1,2-DICHLOROPROPANE	X
BROMOMETHANE	X	*1,3-DICHLOROPROPENE	X
VINYL CHLORIDE	X	1,3-DICHLOROPROPENE	X
CHLOROETHANE	X	TCE (TRICHLOROETHYLENE)	X
METHYLENE CHLORIDE	X	*1,1,2-TRICHLOROETHANE	X
ACETONE	7	DIBROMOCHLOROETHANE	X
1,1-DICHLOROETHYLENE	X	BENZENE	X
1,1-DICHLOROETHANE **	X	DIISOPROPYL ETHER	X
1,1,2-DICHLOROETHYLENE	X	2-CHLOROETHYL VINYL ETHER	X
CHLOROFORM	X	BROMOFORM	X
1,2-DICHLOROETHANE	X	1,1,2,2-TETRACHLOROETHANE	X
t-BUTYL METHYL ETHER	X	PCE (TETRACHLOROETHYLENE)	X
1,1,1-TRICHLOROETHANE	X	TOLUENE	0.41
CARBON TETRACHLORIDE	X	CHLOROBENZENE	X
BROMODICHLOROMETHANE	X	ETHYLBENZENE	X

*Compounds co-elute (could be either material).

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

LT=Less Than dwb=Dry Weight Basis.
GT=Greater Than X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of mg/kg dwb.

X Unknown peaks detected (retention time, estimated amount) numerous other hydrocarbon peaks, 0.02 to 0.1 mg/kg

NOTE: Compound identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify material and/or amount detected.

INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichenor, Vice President

301650

ICM INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1152 ROUTE 16, RANDOLPH NEW JERSEY 07069 201 664 0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 43752

CLIENT: ENVIRO SCIENCES, INC. - ICC (BERLEX) PROJECT

SAMPLE ID: Dryer

SAMPLE DATE: 7/1/85

SAMPLED BY: Enviro Sciences

AT LAB DATE: 7/11/85

VOLATILE ORGANICS BY PURGE AND TRAP GAS CHROMATOGRAPHY / HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE	X	1,2-DICHLOROPROPANE	X
BROMOMETHANE	X	* 1,3-DICHLOROPROPENE	X
VINYL CHLORIDE	X	1,3-DICHLOROPROPENE	X
CHLOROETHANE	X	TCE (TRICHLOROETHYLENE)	X
METHYLENE CHLORIDE	X	* 1,1,2-TRICHLOROETHANE	X
ACETONE	2.0	DIBROMOCHLOROMETHANE	X
1,1-DICHLOROETHYLENE	X	BENZENE	X
1,1-DICHLOROETHANE **	X	DIISOPROPYL ETHER	X
1,1,2-DICHLOROETHYLENE	X	2-CHLOROETHYL VINYL ETHER	X
CHLOROFORM	X	BROMOFORM	X
1,2-DICHLOROETHANE	X	1,1,2,2-TETRACHLOROETHANE	X
t-BUTYL METHYL ETHER	X	PCE (TETRACHLOROETHYLENE)	X
1,1,1-TRICHLOROETHANE	X	TOLUENE	1.5
CARBON TETRACHLORIDE	X	CHLOROBENZENE	X
BROMODICHLOROMETHANE	X	ETHYLBENZENE	X

**Compounds co-elute (could be either material).

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

LT=Less Than dwb=Dry Weight Basis.
GT=Greater Than X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of mg/kg dwb.

X Unknown peaks detected (retention time, estimated amount) 34.07 @ 15 mc/kg

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichenor, Vice President

301651

56 295



CHAIN OF CUSTODY RECORD

Pa. 20

56-62

Installation: 100 (Berlex)				Samplers: (Signature) <i>Alan L. Kylene</i>			
Survey No.:							
Sample No.	Station Location	Date	Time	Sample Type		No. of Containers	
				Comp.	Grao		
747	DRYER <i>Freeman</i>	1 July	11:00 AM		X	2	
748	Loe Pit #1 <i>Freeman</i>	1 July	"		X	1	
749	" " #2 "	1 July	"		X	1	
750	" " #3 "	1 July	"		X	1	
751	" " #4 "	1 July	"		X	1	
752	DRYER <i>Freeman</i>	1 July	"		X	1	
Relinquished by: (Sign.) <i>Alan L. Kylene</i>		Received by: (Sign.) <i>Henry L. Brown</i>		Date/Time 7/1/65 8:20			
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time			
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time			
Relinquished by: (Sign.)		Rec'd by Laboratory for field analysis (Sign.)		Date/Time			
Dispatched by: (Sign.)		Date/Time		Rec'd for Laboratory by:		Date/Time	
Method of Shipment: <i>Alan L. Kylene Company Van</i>							

301652



YORK LABORATORIES DIVISION

CERTIFIED REPORT TRANSMITTAL

REPORT NUMBER 30850-1283DATE September 25, 1965

CLIENT Envirosciences, Inc.
19 Copeland Road
Denville, NJ 07834

ATTENTION Dr. A. Kyles

The above referenced report is enclosed. Copies of this report and supporting data will be retained in our files in the event they are required for future reference.

If there are any questions concerning this report, please do not hesitate to contact us.

Any samples submitted to our Laboratory will be retained for a maximum of sixty (60) days from receipt of this report, unless other arrangements are desired.

Naturally, as in the past, our staff will be pleased to quote on any future requirements you may have. In addition to the service provided, we also offer the following:

- Hazardous Waste Analyses
- Product Evaluation/R&D
- Water and Wastewater Analyses
- Air and Process Gas Analyses
- Industrial Hygiene Surveys
- Metallurgical Analyses
- Microbiological Analyses
- Mass Spectrometry Services

Very Truly Yours

Robert Q. Bradley
 Robert Q. Bradley
 Vice President

YMC, INC. • 200 Monroe Road • Monroe, Connecticut 06468 • (203) 261-4433

301653

September 25, 1985

30850-1293
ENVIROSCIENCES, INC.
19 Copeland Road
Denville, New Jersey 07834

Attention: Dr. A. Kyles

PURPOSE AND RESULTS

Six (6) soil samples were submitted to York Laboratories for analysis. The samples were prepared and analyzed in accordance with Procedures for Handling and Chemical Analysis of Sediment and Water Samples, EPA/CE-81-1.

The results are reported in the following Tables.

Prepared by: Daniel F. Ott
Daniel F. Ott
Laboratory Manager

Approved by: Jeffrey C. Curran
Jeffrey C. Curran
Chief Chemist

DFC/JCC/md

TABLE 1
30850-1283
ENVIROSCIENCES, INC.

<u>Sample Identification</u>	<u>Toluene, ug/kg</u>
5434 - Dryer, 7/1/85	7,700
5435 - Dryer, 7/1/85	920

MVC, INC. • 200 Monroe Road • Monroe, Connecticut 06468 • (203) 261-1153

301655

TABLE 2
30850-1293
ENVIROSCIENCES, INC.

<u>Sample Identification</u>	<u>Pyridine, ug/kg</u>
5436 - Lab Pit, #1, 7/1/85	1,100
5437 - Lab Pit, #2, 7/1/85	3,400
5438 - Lab Pit, #3, 7/1/85	<150
5439 - Lab Pit, #4, 7/1/85	<150

**ICM INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH PK, NEW JERSEY 07069 201 584 0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 44629

CLIENT: ENVIRO SCIENCES, INC. - ICC (BERLEX) PROJECT

SAMPLE ID: Dryer

SAMPLE DATE: 7/17/85

SAMPLED BY: Enviro Sciences

AT LAB DATE: 7/25/85

**VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY / HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE	X	1,2-DICHLOROPROPANE	X
BROMOMETHANE	X	*[C-1,3-DICHLOROPROPENE	X
VINYL CHLORIDE	X	[C-1,3-DICHLOROPROPENE	X
CHLOROETHANE	X	TCE (TRICHLOROETHYLENE)	X
METHYLENE CHLORIDE	X	*[1,1,2-TRICHLOROETHANE	X
ACETONE	1.2	DIBROMOCHLOROMETHANE	X
1,1-DICHLOROETHYLENE	X	BENZENE	X
1,1-DICHLOROETHANE **	X	DIISOPROPYL ETHER	X
[C-1,2-DICHLOROETHYLENE	X	2-CHLOROETHYL VINYL ETHER	X
CHLOROFORM	X	BROMOFORM	X
1,2-DICHLOROETHANE	X	1,1,2,2-TETRACHLOROETHANE	X
[C-BUTYL METHYL ETHER	X	PCE (TETRACHLOROETHYLENE)	0.07
1,1,1-TRICHLOROETHANE	X	TOLUENE	0.36
CARBON TETRACHLORIDE	X	CHLOROBENZENE	X
BROMODICHLOROMETHANE	X	ETHYLBENZENE	X

*Compounds co-elute (could be either material).

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

LT=Less Than dwb=Dry Weight Basis.
GT=Greater Than X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of mg/kg dwb.

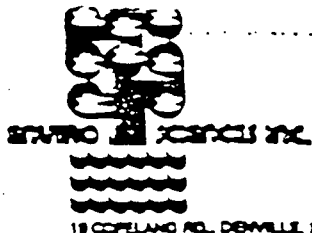
X Unknown peaks detected (retention time, estimated amount) numerous other hydrocarbon peaks 0.01 to 1 mg/kg

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichenor, Vice President

22
0



CHAIN OF CUSTODY RECORD

Pg. 21

63-45

18 COPELAND RD., DEWILLE, NEW JERSEY 07024

Installation: <i>ICC Bulup</i>		Samplers: (Signature) <i>[Signature]</i>				
Survey No.:						
Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	Grav	
44629	DRIVER (Toluene)	11 JULY	10 AM		X	2
44630	LOB PIT SAMPLE 1 (PENDING)	"	"		X	1
44631	" " " 2 (PENDING)	"	"		X	1
	PRIORITY POLLUTANTS + 40	"	"		X	6
	PROX PIT WATER					
	SAMPLES LOST BY AIR FREIGHT NOT FOUND UNTIL AFTER 5 MONTHS					
	NEO EXPIRED. RETERMINED 11/24/85					
Relinquished by: (Sign.) <i>[Signature]</i>		Received by: (Sign.) <i>[Signature]</i>		Date/Time 7/25/85 5:00		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Rec'd by Laboratory for field analysis (Sign.)		Date/Time		
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by:		Date/Time	
Method of Shipment: <i>Express Air Freight</i>						

301658



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-3330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: August 15, 1985
LAB # 44418

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE SOURCE: ICC (BERLEX) PROJECT

SAMPLE ID: St. Croix

SAMPLE DATE: unknown

SAMPLED BY: Al Kyles

AT LAB DATE: 7/22/85

19 JULY 1985

WATER

PRIORITY POLLUTANT VOLATILE ORGANICS
by GC/MS

Parameter	Result	Parameter	Result
acrolein*-----	X	1,2-dichloropropane -----	X
acrylonitrile*-----	X	1,3-dichloropropylene -----	X
benzene -----	0.04	ethylbenzene -----	X
bromoform -----	X	methyl bromide -----	X
carbon tetrachloride -----	X	methyl chloride -----	X
chlorobenzene -----	X	methylene chloride -----	X
chlorodibromomethane -----	X	1,1,2,2-tetrachloroethane -----	X
chloroethane -----	X	tetrachloroethylene -----	X
2-chloroethylvinyl ether -----	X	toluene -----	0.39
chloroform -----	X	1,2-trans-dichloroethylene -----	X
dichlorobromomethane -----	X	1,1,1-trichloroethane -----	X
1,1-dichloroethane -----	X	1,1,2-trichloroethane -----	X
1,2-dichloroethane -----	X	trichloroethylene -----	X
1,1-dichloroethylene -----	X	vinyl chloride -----	X

Results reported in mg/l (ppm). Detection limit 0.001 mg/l (ppm).

*Detection Limit: 0.1 mg/l

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg

LT=Less Than
X=Not Detected

301659



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

Laboratory 10 116

Page 13

REPORT DATE: August 15, 1985

LAB # 44418

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201 584-0230

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE SOURCE: ICC(BERLEX) St. Croix

SAMPLE DATE: ~~unknown~~ 19 AUGUST '85 SAMPLED BY: Al Kyles AT LAB DATE: 7/22/85

WATER

PESTICIDE & PCB EXTRACTABLES
PRIORITY POLLUTANTS
by GC/MS

Parameter	Result
Aldrin	LT 0.01
a-BHC	LT 0.01
b-BHC	LT 0.01
d-BHC	LT 0.01
g-BHC	LT 0.01
Chlordane	LT 0.02
4,4'-DDD	LT 0.01
4,4'-DDE	LT 0.01
4,4'-DDT	LT 0.01
Dieldrin	LT 0.01
Endosulfan I	LT 0.01
Endosulfan II	LT 0.01
Endosulfan Sulfate	LT 0.01
Endrin	LT 0.01
Endrin Aldehyde	LT 0.01
Heptachlor	LT 0.01
Heptachlor Epoxide	LT 0.01
Toxaphene	LT 0.02

PCB-1016	LT 0.01
PCB-1221	LT 0.01
PCB-1232	LT 0.01
PCB-1242	LT 0.01
PCB-1248	LT 0.01
PCB-1254	LT 0.01
PCB-1260	LT 0.01

All results reported in mg/l (ppm).

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg

LT=Less than

X=Not detected

301660

**ICM INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RAMPOCK PI, NEW JERSEY 07868 201-581-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 44418

CLIENT: ENVIRO SCIENCES, INC.,

SAMPLE SOURCE: ICC (BERLEX) PROJECT

SAMPLE ID: ST. Croix

SAMPLE DATE: unknown

SAMPLED BY: Al Kyles

AT LAB DATE: 7/22/85

19 July 1985

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS
by GC/MS

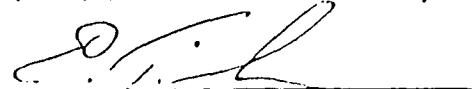
Parameter	Result
acenaphthene	X
acenaphthylene	X
anthracene	X
benzidine	X
benzo(a)anthracene	X
benzo(a)pyrene	X
3,4-benzofluoranthene	X
benzo(ghi)perylene	X
benzo(k)fluoranthene	X
bis(2-chloroethoxy)methane	X
bis(2-chloroethyl)ether	X
bis(2-chloroisopropyl)ether	X
bis(2-ethylhexyl)phthalate	X
4-bromophenyl phenyl ether	X
butylbenzyl phthalate	X
2-chloronaphthalene	X
4-chlorophenyl phenyl ether	X
chrysene	X
dibenzo(a,h)anthracene	X
1,2-dichlorobenzene	X
1,3-dichlorobenzene	X
1,4-dichlorobenzene	X
3,3-dichlorobenzidine	X

Parameter	Result
diethyl phthalate	X
dimethyl phthalate	X
di-n-butyl phthalate	X
2,4-dinitrotoluene	X
2,6-dinitrotoluene	X
di-n-octyl phthalate	X
1,2-diphenylhydrazine (as azobenzene)	X
fluoranthene	X
fluorene	X
hexachlorobenzene	X
hexachlorobutadiene	X
hexachlorocyclopentadiene	X
hexachloroethane	X
indeno(1,2,3-cd)pyrene	X
isophorone	X
naphthalene	X
nitrobenzene	X
N-nitrosodimethylamine	X
N-nitrosodi-n-propylamine	X
N-nitrosodiphenylamine	X
phenanthrene	X
pyrene	X
1,2,4-trichlorobenzene	X

None of the above Priority Pollutants detected at a sensitivity level of 0.03 mg/l (ppm)

**Other compounds see Addendum I

INDUSTRIAL CORROSION MANAGEMENT, INC.


Edna Tichenor

LT=Less Than

301661



NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 44418

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE SOURCE: ICC (Berlex)

SAMPLE ID: St. Croix

SAMPLE DATE: UNKNOWN SAMPLED BY: AL. Kvles AT LAB DATE: 7/22/85
19 July 1985

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS

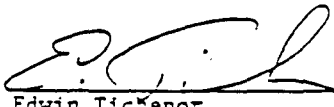
ADDENDUM I
OTHER COMPOUNDS DETECTED
by GC/MS

<u>Parameter</u>	<u>Result</u>
benzaldehyde -----	<u>3.0</u>
chloromethyl benzene -----	<u>0.3</u>
benzene methanol -----	<u>24.0</u>
phenyl acetate -----	<u>25.0</u>
diphenyl methane -----	<u>0.4</u>
1-1'-[oxybis(methylene)]bis benzene -----	<u>0.4</u>

All results are reported in mg/l (ppm).

We thank you for this opportunity to serve you. If you have any questions,
please do not hesitate to call.

INDUSTRIAL CORROSION MANAGEMENT, INC.


Edwin Ticknor
Vice President

ET/jmg
encl.
LT=Less Than

301662



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-534-0330

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 44418

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE SOURCE ICC (BERLEY) PROJECT ST. Croix

SAMPLE DATE: UNKNOWN SAMPLED BY: Al Kyles AT LAB DATE: 7/22/85

19 July 1985

ACID EXTRACTABLES
PRIORITY POLLUTANTS by GC/MS

WATER

<u>Parameter</u>	<u>Result</u>
2-chlorophenol -----	X
2-nitrophenol -----	X
phenol -----	X
2,4-dimethylphenol -----	X
2,4-dichlorophenol -----	X
2,4,6-trichlorophenol -----	X
pentachlorophenol -----	X
2,4-dinitrophenol -----	X
4,6-dinitro-o-cresol -----	X
4-nitrophenol -----	X
4-chloro-3 methyl phenol -----	X

None of the above Priority Pollutants detected at a sensitivity level of 0.01 mg/l (?)
OTHER PEAKS DETECTED: benzoic acid @ 3 mg/l

INDUSTRIAL CORROSION MGMT., INC

Edwin Tichenor
Vice President

ET:jmg

LT=Less Than
X=Not Detected

301663



INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

NJDEP Certified Drinking Water
Wastewater Laboratory ID #14116

REPORT DATE: August 15, 1985

LAB # 44418

1142 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201 584 0171

CLIENT: ENVIRO SCIENCES INC.

SAMPLE SOURCE: ICC (BERLEX) PROJECT

SAMPLE ID: St. Croix

SAMPLE DATE: UNKNOWN

SAMPLED BY: Al Kyles

AT LAB DATE: 7/22/85

PT July 1985

PRIORITY POLLUTANTS

WATER SAMPLE

TOXIC POLLUTANTS: Metals, Cyanide and Total Phenols

<u>PARAMETER</u>	<u>RESULT</u>
Total Antimony -----	<u>LT 0.016</u>
Total Arsenic -----	<u>LT 0.005</u>
Total Beryllium -----	<u>LT 0.013</u>
Total Cadmium -----	<u>0.003</u>
Total Chromium -----	<u>0.027</u>
Total Copper -----	<u>0.153</u>
Total Lead -----	<u>0.011</u>
Total Mercury -----	<u>0.001</u>
Total Nickel -----	<u>0.080</u>
Total Selenium -----	<u>LT 0.005</u>
Total Silver -----	<u>0.008</u>
Total Thallium -----	<u>0.029</u>
Total Zinc -----	<u>4.85</u>
Total Cyanide -----	<u>0.053</u>
Total Phenol -----	<u>0.161</u>

All results are reported in mg/l (ppm).

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Very truly yours,
INDUSTRIAL CORROSION MGMT., INC.

Edwin Tichenor
Vice President

ET/jmq

LT=Less Than

X=Not Detected

301664



CHAIN OF CUSTODY RECORD

18 COPELAND RD., DEWILLE, NEW JERSEY 07834

Pg. 31

66

Installation: <i>ICC Entry</i>				Samplers: (Signature) <i>Alan L. Kyle</i>		
Survey No.:						
Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	Grao	
	<i>PROPERTY POLLUTANTS + 40</i>	<i>1/9/88</i>	<i>12:00</i>		<i>X</i>	<i>6</i>
	<i>Process Pot Water</i>					
Relinquished by: (Sign.) <i>John D. Hartman</i>			Received by: (Sign.) <i>D. L. H. H. H. H.</i>		Date/Time <i>7/22 2:15</i>	
Relinquished by: (Sign.)			Received by: (Sign.)		Date/Time	
Relinquished by: (Sign.)			Received by: (Sign.)		Date/Time	
Relinquished by: (Sign.)			Rec'd by Laboratory for field analysis (Sign.)		Date/Time	
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by:		Date/Time	
Method of Shipment: <i>Air Express Freight</i>						

301665

**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: September 12, 1985

LAB # 45362

CLIENT: ENVIRO SCIENCE - ICC MERLEX PROJECT

SAMPLE ID: Lab Pic #5965

SAMPLE DATE: August 7, 1985

SAMPLED BY: Enviro Science

AT LAB DATE: August 9, 1985

**VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY / HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE	X	1,2-DICHLOROPROPANE	X
BROMOMETHANE	X	c-1,3-DICHLOROPROPENE	X
VINYL CHLORIDE	X	t-1,3-DICHLOROPROPENE	X
CHLOROETHANE	X	TCE (TRICHLOROETHYLENE)	X
METHYLENE CHLORIDE	X	1,1,2-TRICHLOROETHANE	X
ACETONE	0.32	DIBROMOCHLOROMETHANE	X
1,1-DICHLOROETHYLENE	X	BENZENE	0.34
1,1-DICHLOROETHANE **	0.02	DIISOPROPYL ETHER	X
t-1,2-DICHLOROETHYLENE	0.02	2-CHLOROETHYL VINYL ETHER	X
CHLOROFORM	X	BROMOFORM	X
1,2-DICHLOROETHANE	X	1,1,2,2-TETRACHLOROETHANE	X
t-BUTYL METHYL ETHER	X	PCE (TETRACHLOROETHYLENE)	X
1,1,1-TRICHLOROETHANE	X	TOLUENE	0.08
CARBON TETRACHLORIDE	X	CHLOROBENZENE	X
BROMODICHLOROMETHANE	X	ETHYLBENZENE	0.01

*Compounds co-elute (could be either material).

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

LT=Less Than dwb=Dry Weight Basis.

GT=Greater Than X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.01 mg/kg dwb.

X Unknown peaks detected (retention time, estimated amount) Xylenes approx 0.06 mg/kg dwb

NOTE: Compound identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

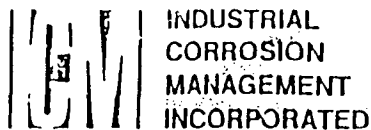
INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine/President

301666

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11-11



1152 ROUTE 13 HANOVER, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: September 12, 1985

LAB # 45363

CLIENT: ENVIRO SCIENCE - ICC BERLEX PROJECT

SAMPLE ID: Lab Pit #5966

SAMPLE DATE: August 7, 1985

SAMPLED BY: Enviro Science

AT LAB DATE: August 9, 1985

VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY / HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE	X	1,2-DICHLOROPROPANE	X
BROMOMETHANE	X	* 1,3-DICHLOROPROPENE	X
VINYL CHLORIDE	X	1,3-DICHLOROPROPENE	X
CHLOROETHANE	X	TCE (TRICHLOROETHYLENE)	X
METHYLENE CHLORIDE	X	* 1,1,2-TRICHLOROETHANE	X
ACETONE	0.27	DIBROMOCHLOROMETHANE	X
1,1-DICHLOROETHYLENE	X	BENZENE	1.37
1,1-DICHLOROETHANE **	0.02	DIISOPROPYL ETHER	X
t-1,2-DICHLOROETHYLENE	0.01	2-CHLOROETHYL VINYL ETHER	X
CHLOROFORM	X	BROMOFORM	X
1,2-DICHLOROETHANE	X	1,1,2,2-TETRACHLOROETHANE	X
t-BUTYL METHYL ETHER	X	PCE (TETRACHLOROETHYLENE)	X
1,1,1-TRICHLOROETHANE	X	TOLUENE	X
CARBON TETRACHLORIDE	X	CHLOROBENZENE	X
BROMODICHLOROMETHANE	X	ETHYL BENZENE	X

*Compounds co-elute (could be either material).

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

LT=Less Than dwb=Dry Weight Basis.

GT=Greater Than X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg dwb.

Unknown peaks detected (retention time, estimated amount)

NOTE: Compound identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine/President

25.241

301667

**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07069 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: September 12, 1985

LAB # 45364

CLIENT: ENVIRO SCIENCE - ICG BERLEX PROJECT

SAMPLE ID: Lab Pkt #5967

SAMPLE DATE: August 7, 1985

SAMPLED BY: Enviro Science

AT LAB DATE: August 9, 1985

**VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY / HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis

CHLOROMETHANE	X	1,2-DICHLOROPROPANE	X
BROMOMETHANE	X	*c-1,3-DICHLOROPROPENE	X
VINYL CHLORIDE	X	t-1,3-DICHLOROPROPENE	X
CHLOROETHANE	X	TCE (TRICHLOROETHYLENE)	X
METHYLENE CHLORIDE	X	*1,1,2-TRICHLOROETHANE	X
ACETONE	0.23	DIBROMOCHLOROMETHANE	X
1,1-DICHLOROETHYLENE	X	BENZENE	0.01
1,1-DICHLOROETHANE **	X	DIISOPROPYL ETHER	X
c-1,2-DICHLOROETHYLENE	0.03	2-CHLOROETHYL VINYL ETHER	X
CHLOROFORM	0.11	BROMOFORM	X
1,2-DICHLOROETHANE	X	1,1,2,2-TETRACHLOROETHANE	X
t-BUTYL METHYL ETHER	X	PCE (TETRACHLOROETHYLENE)	X
1,1,1-TRICHLOROETHANE	X	TOLUENE	0.05
CARBON TETRACHLORIDE	X	CHLORODENZENE	X
BROMODICHLOROMETHANE	X	ETHYLBENZENE	0.04

*Compounds co-elute (could be either material).

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

LT=Less Than dwb=Dry Weight Basis.
GT=Greater Than X=Not Detected

For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.01 mg/kg dwb.

X Unknown peaks detected (retention time, estimated amount) Xylene --0.02 mg/kg dwb

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmation of analysis using GC/MS is required to positively identify any material and/or amount detected.

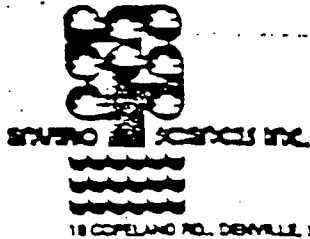
INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine/President

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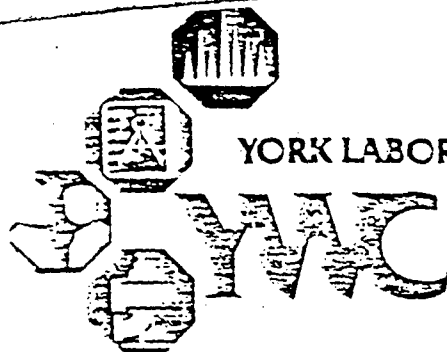
CHAIN OF CUSTODY RECORD

Page 16

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Installation: <i>ICC Building</i>				Samplers: (Signature) <i>Alan J. Keffler</i>		
Survey No.:						
Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	urac	
5364	<i>Dryer (Towone)</i>	<i>7 August</i>	<i>10:00 am</i>		<i>X</i>	<i>1</i>
5364-4533	<i>Lat Pit (Volatile Organic)</i>	<i>"</i>	<i>2:00 pm</i>		<i>X</i>	<i>2</i>
5364-4534	<i>Lat Pit (Pesticide)</i>	<i>"</i>	<i>2:00 pm</i>		<i>✓</i>	<i>2</i>
Relinquished by: (Sign.) <i>John D. Hunter</i>		Received by: (Sign.) <i>D. C. Haines</i>		Date/Time <i>8/10/65</i>		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Rec'd by Laboratory for field analysis (Sign.)		Date/Time		
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by:		Date/Time	
Method of Shipment: <i>Air Express Freight</i>						

301669



YORK LABORATORIES DIVISION

CERTIFIED REPORT TRANSMITTAL

REPORT NUMBER 30850-1343

DATE September 26, 1985

CLIENT Envirosciences, Inc.
19 Copeland Road
Denville, NJ 07834

ATTENTION Dr. A. Kyles

The above referenced report is enclosed. Copies of this report and supporting data will be retained in our files in the event they are required for future reference.

If there are any questions concerning this report, please do not hesitate to contact us.

Any samples submitted to our Laboratory will be retained for a maximum of sixty (60) days from receipt of this report, unless other arrangements are desired.

Naturally, as in the past, our staff will be pleased to quote on any future requirements you may have. In addition to the service provided, we also offer the following:

- Hazardous Waste Analyses
- Product Evaluation/R&D
- Water and Wastewater Analyses
- Air and Process Gas Analyses
- Industrial Hygiene Surveys
- Metallurgical Analyses
- Microbiological Analyses
- Mass Spectrometry Services

Very Truly Yours,

Robert Q. Bradley
Robert Q. Bradley
Vice President

September 26, 1985

30850-1342
ENVIROSCIENCES, INC.
19 Copeland Road
Denville, New Jersey 07834

Attention: Dr. A. Kyles

PURPOSE AND RESULTS

Four (4) soil samples were submitted to York Laboratories for analysis. The samples were prepared and analyzed in accordance with Procedures for Handling and Chemical Analysis of Sediment and Water Samples, EPA/CS-81-1.

The results are reported in the following Tables.

Prepared by: Daniel F. Ott
Daniel F. Ott
Laboratory Manager

Approved by: Jeffrey C. Curran
Jeffrey C. Curran
Chief Chemist

DFO/JCC/md

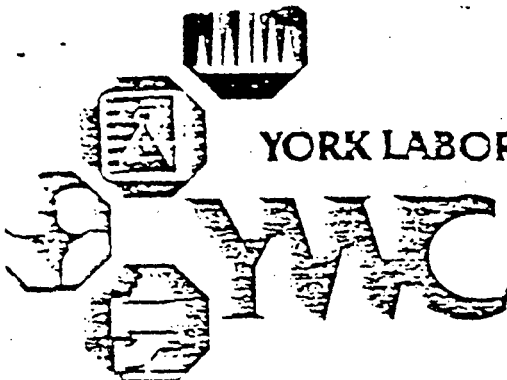
TABLE 1
30890-1343
ENVIROSCIENCES, INC.

<u>Sample Identification</u>	<u>Toluene, ug/kg</u>
5753 - Dryer	600
5754 - Dryer	660

YWC, INC. • 200 Monroe Turnpike • Monroe, Connecticut 06468 • (203) 261-4453

TABLE 2
30850-1343
ENVIROSCIENCES, INC.

<u>Sample Identification</u>	<u>Pyridine, ug/kg</u>
5751 - Lab Pit #2	<150
5752 - Lab Pit #1	<150



YORK LABORATORIES DIVISION

8/7/85

CERTIFIED REPORT TRANSMITTAL

REPORT NUMBER 30850-1444

DATE September 25, 1985

CLIENT Envirosciences, Inc.
19 Copeland Road
Denville, NJ 07834

ATTENTION Dr. A. Kyles

The above referenced report is enclosed. Copies of this report and supporting data will be retained in our files in the event they are required for future reference.

If there are any questions concerning this report, please do not hesitate to contact us.

Any samples submitted to our Laboratory will be retained for a maximum of sixty (60) days from receipt of this report, unless other arrangements are desired.

Naturally, as in the past, our staff will be pleased to quote on any future requirements you may have. In addition to the service provided, we also offer the following:

- Hazardous Waste Analyses
- Product Evaluation/R&D
- Water and Wastewater Analyses
- Air and Process Gas Analyses
- Industrial Hygiene Surveys
- Metallurgical Analyses
- Microbiological Analyses
- Mass Spectrometry Services

Very Truly Yours,

Robert Q. Bradley
 Robert Q. Bradley
 Vice President

September 25, 1985

30850-1444
ENVIROSCIENCES, INC.
19 Copeland Road
Denville, New Jersey 07834

Attention: Dr. A. Kyles

PURPOSE AND RESULTS

Five (5) soil samples were submitted to York Laboratories for analysis. The samples were prepared and analyzed in accordance with Procedures for Handling and Chemical Analysis of Sediment and Water Samples, EPA/CE-81-1.

The results are reported in the following Tables.

Prepared by: Daniel F. Ott
Daniel F. Ott
Laboratory Manager

Approved by: Jeffrey C. Curran
Jeffrey C. Curran
Chief Chemist

DFO/JCC/md

TABLE 1
30850-1444
ENVIROSCIENCES, INC.

<u>Sample Identification</u>	<u>Toluene, ug/kg</u>
(Dryer) ICC Berlex, 8/7/85 1:00	360

TABLE 2
30850-1444
ENVIROSCIENCES, INC.

<u>Sample Identification</u>	<u>Pyridine, ug/kg</u>
ICC Berlex - Lab Pit, 8/7/85 12:00	2,700
ICC Berlex - Lab Pit, 8/7/85 12:00	<150

TABLE 3
30850-1444
ENVIROSCIENCES, INC.
VOLATILE PRIORITY POLLUTANTS

All results reported in ug/l.

<u>Compound</u>	<u>Sample Identification</u>		
	ICC Berlex	ICC Berlex	ICC Berlex
	Lab Pit 8/7/85 3:00	Lab Pit 8/7/85 3:00	Lab Pit 8/7/85 3:00
chloromethane	<10	<10	<10
bromomethane	<10	<10	<10
vinyl chloride	<10	<10	<10
chloroethane	<10	<10	<10
methylene chloride	<10	<10	<10
trichlorofluoromethane	<10	<10	<10
acrolein	<100	<100	<100
acrylonitrile	<100	<100	<100
1,1-dichloroethene	<10	<10	<10
1,1-dichloroethane	<10	<10	<10
trans-1,2-dichloroethene	<10	<10	<10
chloroform	<10	<10	<10
1,2-dichloroethane	<10	<10	<10
1,1,1-trichloroethane	<10	<10	<10
carbon tetrachloride	<10	<10	<10
bromodichloromethane	<10	<10	<10
2-chloroethylvinyl ether	<10	<10	<10
1,2-dichloropropane	<10	<10	<10
trans-1,3-dichloropropene	<10	<10	<10
trichloroethylene	<10	<10	<10
benzene	<10	<10	<10
cis-1,3-dichloropropene	<10	<10	<10
dibromochloromethane	<10	<10	<10
1,1,2-trichloroethane	<10	<10	<10
bromoform	<10	<10	<10
tetrachloroethylene	<10	<10	<10
1,1,2,2-tetrachloroethane	<10	<10	<10
toluene	22	21	360
chlorobenzene	<10	<10	<10
ethyl benzene	<10	<10	<10

301678

Table I

Results of Organics Analysis on Samples

Organic Compounds	Sample# 087001 ug/kg	Sample# 087002 ug/kg	Sample# 087003 ug/kg	Sample# 087004 ug/kg	Sample# 087005 ug/kg	Sample# 087006 ug/kg
Toluene	460	560	420	440	360	400
Flourene	9200	1300				
Bis(2-ethylhexyl)Phtha- -late	13000	4700	16000	1900	51000	36000
Benzophenone	15,000,000	26,000,000				
Di-n-octyl Phthalate		500J		4200	600J	2000
Chloroform				200K		
Benzene				200K		
Di-n-butyl Phthalate						75000

Sample #087001 - Aerated Soil Composite from Storage Room (left side)
Sample #087002 - Aerated Soil Composite from Storage Room (right side)
Sample #087003 - Surface Soil Composite from North Side of Lab Waste Drainage Area
Sample #087004 - Subsurface Soil Composite from North Side of Lab Waste Drainage Area
Sample #087005 - Surface Soil Composite from South Side of Lab Waste Drainage Area
Sample #087006 - Subsurface Soil Composite from South Side of Lab Waste Drainage Area

K = Actual value known to be less than value given

J = Estimated value

Blank Space - Material Analyzed but not detected

RECEIPT FOR SAMPLES CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY - REGION II
Environmental Services Division
EDISON, NEW JERSEY 08817

Name of Unit and Address: Berlex Laboratories (V.I. Chemical) VID 80651095		9/9/85	
Sample Number	Number of Containers	Description of Samples	
087001	1 2	Qt. - NVOA 40 ml vials	} Aerated Soil - Composite } Aerated Soil - Composite } Surface Soil - Composite } Subsurface Soil - Composite } Surface Soil - Composite } Subsurface Soil - Composite
087002	1 2	Qt. - NVOA 40 ml vials	
087003	1 2	Qt. - NVOA 40 ml vials	
087004	1 2	Qt. - NVOA 40 ml vials	
087005	1 2	Qt. - NVOA 40 ml vials	
087006	1 2	Qt. - NVOA 40 ml vials	
Person Assuming Responsibility for Sample:			Time
Sample Number	Relinquished By:	Received By:	Time
Sample Number	Relinquished By:	Received By:	Time
Sample Number	Relinquished By:	Received By:	Time
Sample Number	Relinquished By:	Received By:	Time

9/9/85
[Signature] USF
[Signature] 9/9/85-2:

301680

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY - REGION II
Environmental Services Division
EDISON, NEW JERSEY 08817

Name of Unit and Address					
Berlex Laboratories Inc. St. Croix, Virgin Islands USA					9 VID 80651095

Sample Number	Number of Containers	Description of Samples
087001	1	Qt Jar NVOA w/ice
	2	40 ml Vials w/ice
087002	1	Qt. Jar NVOA w/ice
	2	40 ml Vials w/ice
087003	1	Qt. Jar NVOA w/ice
	2	40 ml Vials w/ice
087004	1	Qt. Jar NVOA w/ice
	2	40 ml Vials w/ice
087005	1	Qt. Jar NVOA w/ice
	2	40 ml Vials w/ice
087006	1	Qt. Jar NVOA w/ice
	2	40 ml Vials w/ice

Person Assuming Responsibility for Sample:				Time	Date
<i>Lower D. L.</i>				1:00 PM	9/1/85

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
087001 to 087006	<i>Lower D. L.</i> 9/1/85	<i>Kevin Petrus</i>	10:00 PM	9/1/85	Shipment of Samples to Lab
087001 to 087006	<i>Kevin Petrus</i>	<i>R. Miller</i>	7:45 AM	9/1/85	Log in at OSCAR
087001 to 087006	<i>R. Miller</i>	<i>R. Mason</i>	1:30 PM	9/1/85	For analysis 301681
087001 to 087006	<i>R. Mason</i>	<i>Chief Goldberg</i>	2:00 PM	9/1/85	For POTA and NVOA analysis

**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52463

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES INC.

SAMPLE DATE: February 10, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kulas

SAMPLE ID: G-1

AT LAB DATE: February 21, 1986

UNITS: mg/kg(ppm) dry weight basis

MATRIX: Soil

(This report form contains both the original sample result and the duplicate result.)

Parameter	Sample Result	Sample Duplicate	RPD	Control Limits	Minimum Detection Limit	Method Blank Analysis
Antimony	X	X	X	X	X	X
Arsenic	X	X	X	X	X	X
Beryllium	X	X	X	X	X	X
Cadmium	LT 0.24	LT 0.26	NC	NC	LT 0.24	LT 0.24
Chromium	14.5	17.9	20%	±20%	LT 0.22	LT 0.22
Copper	37.3	43.5	15%	±20%	LT 0.62	LT 0.62
Lead	21.0	25.7	20%	±20%	LT 1.3	LT 1.3
Mercury	LT 0.092	LT 0.093	NC	NC	LT 0.092	LT 0.092
Nickel	X	X	X	X	X	X
Selenium	X	X	X	X	X	X
Silver	X	X	X	X	X	X
Thallium	X	X	X	X	X	X
Zinc	63.1	67.8	7%	±20%	LT 2.28	1.03
Phenol	X	X	X	X	X	X
Cyanide	X	X	X	X	X	X

NC = Non-calculable RPD due to value(s) less than detection limit.

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

RPD = Relative percent difference.

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

RSL/dlh

301682



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07069 201-584-3330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52464

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kyles

SAMPLE ID: G-2

AT LAB DATE: February 21, 1986

UNITS: mg/kg (ppm) dry weight basis

MATRIX: Soil

Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Arsimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	LT 0.23	LT 0.23	LT 0.23
Chromium	16.4	LT 0.21	LT 0.21
Copper	38.3	LT 0.59	LT 0.59
Lead	22.0	LT 1.3	LT 1.3
Mercury	LT 0.103	LT 0.103	LT 0.103
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	57.8	LT 2.1	0.97
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.

RSL/dlh

Richard S. Levine
Richard S. Levine
President

301683



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

152 ROUTE 10, RAMOCLPH, NEW JERSEY 07869 201-584-0230

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52465

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kyles

SAMPLE ID: G-3

AT LAB DATE: February 21, 1986

UNITS: mg/kg(ppm) dry weight basis

MATRIX: Soil

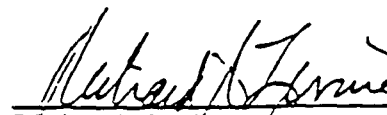
Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Arsimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	LT 0.22	LT 0.22	LT 0.22
Chromium	16.7	LT 0.21	LT 0.21
Copper	33.8	LT 0.58	LT 0.58
Lead	14.5	LT 1.3	LT 1.3
Mercury	LT 0.101	LT 0.101	LT 0.101
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	129	LT 2.1	0.96
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL/dlh

301684

**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

2 ROUTE 10, RAMPOOLPH, NEW JERSEY 07869 201-584-3320

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52466

**PRIORITY POLLUTANT
LABORATORY ANALYSIS**

CLIENT: ENVIRO SCIENCES INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kyles

SAMPLE ID: G-4

AT LAB DATE: February 21, 1986

UNITS: mg/kg (ppm) dry weight basis

MATRIX: Soil

Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Antimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	LT 0.22	LT 0.22	LT 0.22
Chromium	12.0	LT 0.20	LT 0.20
Copper	25.3	LT 0.57	LT 0.57
Lead	13.2	LT 1.3	LT 1.3
Mercury	LT 0.102	LT 0.102	LT 0.102
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	37.1	LT 2.1	0.94
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine

Richard S. Levine
President

RSL/dlh

301685



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

32 ROUTE 10, RAMBOURNE, NEW JERSEY 07869 201-384-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52467

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kulas

SAMPLE ID: G-5

AT LAB DATE: February 21, 1986

UNITS: mg/kg (ppm) dry weight basis

MATRIX: Soil

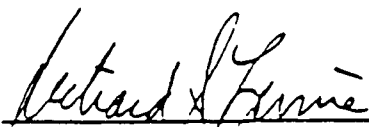
Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Antimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	LT 0.23	LT 0.23	LT 0.23
Chromium	17.1	LT 0.21	LT 0.21
Copper	36.1	LT 0.60	LT 0.60
Lead	20.2	LT 1.3	LT 1.3
Mercury	LT 0.105	LT 0.105	LT 0.105
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	57.2	LT 2.2	0.98
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL/dlh

301686



INDUSTRIAL
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MANAGEMENT
INCORPORATED

1152 ROUTE 10, RAMDOLPH, NEW JERSEY 07869 201-384-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52466

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kyies

SAMPLE ID: G-6

AT LAB DATE: February 21, 1986

UNITS: mg/kg(ppm) dry weight basis

MATRIX: Soil

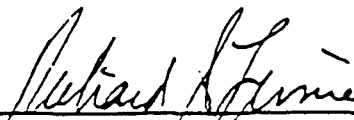
Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Antimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	1.0	LT 0.28	LT 0.28
Chromium	46.5	LT 0.25	LT 0.25
Copper	40.0	LT 0.71	LT 0.71
Lead	32.9	LT 1.6	LT 1.6
Mercury	LT 0.122	LT 0.122	LT 0.122
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	349	LT 2.6	1.2
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL/dlh

301687

**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0300

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52469

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kvles

SAMPLE ID: G-7

AT LAB DATE: February 21, 1986

UNITS: mg/kg(ppm) dry weight basis

MATRIX: Soil

(This report form contains both the original sample result and the spike recovery.)

Parameter	Sample Result	Spike Added	Spiked Sample Result	ZR	Control Limits for ZR	Minimum Detection Limit	Method Blank Analysis
Arsimony	X	X	X	X	75-125 %	X	X
Arsenic	X	X	X	X	75-125 %	X	X
Beryllium	X	X	X	X	75-125 %	X	X
Cadmium	2.4	1	1.13	103%	75-125 %	LT 0.28	LT 0.28
Chromium	71.1	1	4.04	119%	75-125 %	LT 0.25	LT 0.25
Copper	51.4	1	2.99	83%	75-125 %	LT 0.72	LT 0.72
Lead	46.4	1	2.92	106%	75-125 %	LT 1.5	LT 1.5
Mercury	LT 0.121	0.004	0.0035	88%	75-125 %	LT 0.121	LT 0.121
Nickel	X	X	X	X	75-125 %	X	X
Selenium	X	X	X	X	75-125 %	X	X
Silver	X	X	X	X	75-125 %	X	X
Thallium	X	X	X	X	75-125 %	X	X
Zinc	861	1	1.72	103%	75-125 %	LT 20.1	1.17
Phenol	X	X	X	X	75-125 %	X	X
Cyanide	X	X	X	X	75-125 %	X	X

ZR = Percent Spike Recovery

NR = Not required. Standard addition performed.

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

The spiked sample result is based on the soil in solution. It does not directly reflect the final mg/kg dry weight basis result of the sample.

RSL/dlh

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine

301688



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RAMOOLPH, NEW JERSEY 07869 201-584-4320

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52470

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kytes

SAMPLE ID: G-3

AT LAB DATE: February 21, 1986

UNITS: mg/kg (ppm) dry weight basis

MATRIX: Soil

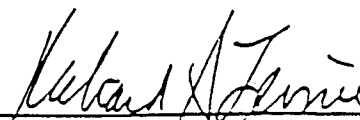
Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Antimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	LT 0.23	LT 0.23	LT 0.23
Chromium	20.4	LT 0.21	LT 0.21
Copper	32.8	LT 0.60	LT 0.60
Lead	19.4	LT 1.3	LT 1.3
Mercury	LT 0.093	LT 0.093	LT 0.093
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	76.2	LT 0.44	0.99
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL/dlh

301689



**INDUSTRIAL
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INCORPORATED**

152 ROUTE 10, RANGLAND, NEW JERSEY 07869 201-384-0320

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52471

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kvles

SAMPLE ID: G-9

AT LAB DATE: February 21, 1986

UNITS: mg/kg (ppm) dry weight basis

MATRIX: soil

Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Antimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	LT 0.23	LT 0.23	LT 0.23
Chromium	19.8	LT 0.21	LT 0.21
Copper	34.9	LT 0.61	LT 0.61
Lead	21.4	LT 1.1	LT 1.1
Mercury	LT 0.113	LT 0.113	LT 0.113
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	75.7	LT 0.44	0.99
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

RSL/dlh

301690



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INCORPORATED

52 ROUTE 10, RANDOLPH, NEW JERSEY 07069 201-584-0350

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52472

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES, INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kyles

SAMPLE ID: G-10

AT LAB DATE: February 21, 1986

UNITS: mg/kg(ppm) dry weight basis

MATRIX: Soil

Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Antimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	LT 0.30	LT 0.30	LT 0.30
Chromium	30.6	LT 0.27	LT 0.27
Copper	62.7	LT 0.77	LT 0.77
Lead	16.5	LT 1.4	LT 1.4
Mercury	LT 0.106	LT 0.106	LT 0.106
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	66.5	LT 0.56	1.3
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
President

RSL/dlh

301691

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INCORPORATED**

1152 ROUTE 10, HANOVER, NEW JERSEY 07930 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 5, 1986

LAB # 52473

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES INC.

SAMPLE DATE: February 19, 1986

SAMPLE SOURCE: Island Chemical Co.

SAMPLED BY: Alan Kytes

SAMPLE ID: G-11

AT LAB DATE: February 21, 1986

UNITS: mg/kg(ppm) dry weight basis

MATRIX: Soil

Parameter	Sample Result	Minimum Detection Limit	Method Blank Analysis
Antimony	X	X	X
Arsenic	X	X	X
Beryllium	X	X	X
Cadmium	LT 0.54	LT 0.54	LT 0.54
Chromium	41.1	LT 0.49	LT 0.49
Copper	69.7	LT 1.4	LT 1.4
Lead	12.8	LT 2.5	LT 2.5
Mercury	LT 0.194	LT 0.194	LT 0.194
Nickel	X	X	X
Selenium	X	X	X
Silver	X	X	X
Thallium	X	X	X
Zinc	871	LT 5.1	2.3
Phenol	X	X	X
Cyanide	X	X	X

dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine

Richard S. Levine
President

RSL/dlh

301692



INDUSTRIAL
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MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52463

CLIENT: ENVIRO SCIENCES, INC. - Island Chemical Company Project SAMPLE ID: G-1

SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	-----	ND
BROMOMETHANE	-----	ND
VINYL CHLORIDE	-----	ND
CHLOROETHANE	-----	ND
METHYLENE CHLORIDE	-----	ND
ACETONE	-----	ND
1,1-DICHLOROETHYLENE	-----	ND
1,1-DICHLOROETHANE	-----	ND
t-1,2-DICHLOROETHYLENE	-----	ND
CHLOROFORM	-----	ND
1,2-DICHLOROETHANE	-----	ND
t-BUTYL METHYL ETHER	-----	ND
1,1,1-TRICHLOROETHANE	-----	ND
CARBON TETRACHLORIDE	-----	ND
BROMODICHLOROMETHANE	-----	ND

1,2-DICHLOROPROPANE	-----	ND
c-1,3-DICHLOROPROPENE	-----	ND
t-1,3-DICHLOROPROPENE	-----	ND
TCE (TRICHLOROETHYLENE)	-----	ND
1,1,2-TRICHLOROETHANE	-----	ND
DIBROMOCHLOROMETHANE	-----	ND
BENZENE	-----	ND
DIISOPROPYL ETHER	-----	ND
2-CHLOROETHYL VINYL ETHER	-----	ND
BROMOFORM	-----	ND
1,1,2,2-TETRACHLOROETHANE	-----	ND
PCE (TETRACHLOROETHYLENE)	-----	ND
TOLUENE	-----	ND
CHLOROBENZENE	-----	ND
ETHYLBENZENE	-----	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 69%
d₈ toluene - 125%
BFB - 131%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

x For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

Other compounds detected: _____

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard A. ...

Project Manager

301693



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07069 201-584 0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52464

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Company Project

SAMPLE ID: G-2

SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles

AT LAB DATE: February 21, 1986

**VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE -----	ND
BROMOMETHANE -----	ND
VINYL CHLORIDE -----	ND
CHLOROETHANE -----	ND
METHYLENE CHLORIDE -----	ND
ACETONE -----	ND
1,1-DICHLOROETHYLENE -----	ND
1,1-DICHLOROETHANE -----	ND
t-1,2-DICHLOROETHYLENE -----	ND
CHLOROFORM -----	ND
1,2-DICHLOROETHANE -----	ND
t-BUTYL METHYL ETHER -----	ND
1,1,1-TRICHLOROETHANE -----	ND
CARBON TETRACHLORIDE -----	ND
BROMODICHLOROMETHANE -----	ND

1,2-DICHLOROPROPANE -----	ND
c-1,3-DICHLOROPROPENE -----	ND
t-1,3-DICHLOROPROPENE -----	ND
TCE (TRICHLOROETHYLENE) -----	ND
1,1,2-TRICHLOROETHANE -----	ND
DIBROMOCHLOROMETHANE -----	ND
BENZENE -----	ND
DIISOPROPYL ETHER -----	ND
2-CHLOROETHYL VINYL ETHER -----	ND
BROMOFORM -----	ND
1,1,2,2-TETRACHLOROETHANE -----	ND
PCE (TETRACHLOROETHYLENE) -----	ND
TOLUENE -----	ND
CHLOROBENZENE -----	ND
ETHYL BENZENE -----	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 64%
d₈ toluene - 114%
DEB - 126%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

X For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

Other compounds detected: _____

INDUSTRIAL CORROSION MANAGEMENT, INC.

Michael A. Horvath
Michael A. Horvath, President

301694



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52465

CLIENT: ENVIRO SCIENCES, INC. - Island Chemical Company Project SAMPLE ID: G-3

SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	-----	ND
BROMOMETHANE	-----	ND
VINYL CHLORIDE	-----	ND
CHLOROETHANE	-----	ND
METHYLENE CHLORIDE	-----	ND
ACETONE	-----	ND
1,1-DICHLOROETHYLENE	-----	ND
1,1-DICHLOROETHANE	-----	ND
1,2-DICHLOROETHYLENE	-----	ND
CHLOROFORM	-----	ND
1,2-DICHLOROETHANE	-----	ND
t-BUTYL METHYL ETHER	-----	ND
1,1,1-TRICHLOROETHANE	-----	ND
CARBON TETRACHLORIDE	-----	ND
BROMODICHLOROMETHANE	-----	ND

1,2-DICHLOROPROPANE	-----	ND
c-1,3-DICHLOROPROPENE	-----	ND
i-1,3-DICHLOROPROPENE	-----	ND
TCE (TRICHLOROETHYLENE)	-----	ND
1,1,2-TRICHLOROETHANE	-----	ND
DIBROMOCHLOROMETHANE	-----	ND
BENZENE	-----	ND
DIISOPROPYL ETHER	-----	ND
2-CHLOROETHYL VINYL ETHER	-----	ND
BROMOFORM	-----	ND
1,1,2,2-TETRACHLOROETHANE	-----	ND
PCE (TETRACHLOROETHYLENE)	-----	ND
TOLUENE	-----	ND
CHLOROBENZENE	-----	ND
ETHYL BENZENE	-----	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 98%
d₈ toluene - 61%
BFB - 57%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

X For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

Other compounds detected: _____

INDUSTRIAL CORROSION MANAGEMENT, INC.

William J. Kyles

301695



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07069 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52466

CLIENT: ENVIRO SCIENCES, INC. - Island Chemical Company Project SAMPLE ID: G-4
SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	-----	ND
BROMOMETHANE	-----	ND
VINYL CHLORIDE	-----	ND
CHLOROETHANE	-----	ND
METHYLENE CHLORIDE	-----	ND
ACETONE	-----	ND
1,1-DICHLOROETHYLENE	-----	ND
1,1-DICHLOROETHANE	-----	ND
t-1,2-DICHLOROETHYLENE	-----	ND
CHLOROFORM	-----	ND
1,2-DICHLOROETHANE	-----	ND
t-BUTYL METHYL ETHER	-----	ND
1,1,1-TRICHLOROETHANE	-----	ND
CARBON TETRACHLORIDE	-----	ND
BROMODICHLOROMETHANE	-----	ND

1,2-DICHLOROPROPANE	-----	ND
c-1,3-DICHLOROPROPENE	-----	ND
t-1,3-DICHLOROPROPENE	-----	ND
TCE (TRICHLOROETHYLENE)	-----	ND
1,1,2-TRICHLOROETHANE	-----	ND
DIBROMOCHLOROMETHANE	-----	ND
BENZENE	-----	ND
DIISOPROPYL ETHER	-----	ND
2-CHLOROETHYL VINYL ETHER	-----	ND
BROMOFORM	-----	ND
1,1,2,2-TETRACHLOROETHANE	-----	ND
PCE (TETRACHLOROETHYLENE)	-----	ND
TOLUENE	-----	ND
CHLOROBENZENE	-----	ND
ETHYLBENZENE	-----	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 100%
d₈ toluene - 70%
BFB - 63%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

X For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

Other compounds detected: _____

INDUSTRIAL CORROSION MANAGEMENT, INC.

301696



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1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52467

CLIENT: ENVIRO SCIENCES, INC. - Island Chemical Company Project SAMPLE ID: G-5

SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	ND
BROMOMETHANE	ND
VINYL CHLORIDE	ND
CHLOROETHANE	ND
METHYLENE CHLORIDE	ND
ACETONE	ND
1,1-DICHLOROETHYLENE	ND
1,1-DICHLOROETHANE	ND
1,2-DICHLOROETHYLENE	ND
CHLOROFORM	ND
1,2-DICHLOROETHANE	ND
t-BUTYL METHYL ETHER	ND
1,1,1-TRICHLOROETHANE	ND
CARBON TETRACHLORIDE	ND
BROMODICHLOROMETHANE	ND

1,2-DICHLOROPROPANE	ND
c-1,3-DICHLOROPROPENE	ND
t-1,3-DICHLOROPROPENE	ND
TCE (TRICHLOROETHYLENE)	ND
1,1,2-TRICHLOROETHANE	ND
DIBROMOCHLOROMETHANE	ND
BENZENE	ND
DIISOPROPYL ETHER	ND
2-CHLOROETHYL VINYL ETHER	ND
BROMOFORM	ND
1,1,2,2-TETRACHLOROETHANE	ND
PCE (TETRACHLOROETHYLENE)	ND
TOLUENE	ND
CHLOROBENZENE	ND
ETHYL BENZENE	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 97%
d₈ toluene - 67%
BFB - 66%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

X For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

Other compounds detected: _____

**INDUSTRIAL
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MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07069 201 584 0330

HJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52468

CLIENT: ENVIRO SCIENCES, INC. - Island Chemical Company Project SAMPLE ID: G-6

SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

**VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE -----	ND
BROMOMETHANE -----	ND
VINYL CHLORIDE -----	ND
CHLOROETHANE -----	ND
METHYLENE CHLORIDE -----	ND
ACETONE -----	ND
1,1-DICHLOROETHYLENE -----	ND
1,1-DICHLOROETHANE -----	ND
1,2-DICHLOROETHYLENE -----	ND
CHLOROFORM -----	ND
1,2-DICHLOROETHANE -----	ND
t-BUTYL METHYL ETHER -----	ND
1,1,1-TRICHLOROETHANE -----	ND
CARBON TETRACHLORIDE -----	ND
BROMODICHLOROMETHANE -----	ND

1,2-DICHLOROPROPANE -----	ND
c-1,3-DICHLOROPROPENE -----	ND
t-1,3-DICHLOROPROPENE -----	ND
TCE (TRICHLOROETHYLENE) -----	ND
1,1,2-TRICHLOROETHANE -----	ND
DIBROMODICHLOROMETHANE -----	ND
BENZENE -----	ND
DIISOPROPYL ETHER -----	ND
2-CHLOROETHYL VINYL ETHER -----	ND
BROMOFORM -----	ND
1,1,2,2-TETRACHLOROETHANE -----	ND
PCE (TETRACHLOROETHYLENE) -----	ND
TOLUENE -----	ND
CHLOROBENZENE -----	ND
ETHYL BENZENE -----	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 84%
d₈ toluene - 66%
BFB - 59%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

X For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

Other compounds detected: _____

INDUSTRIAL CORROSION MANAGEMENT, INC.

301698



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201 584 0330

HJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52469

CLIENT: ENVIRO SCIENCES, INC. - Island Chemical Company Project SAMPLE ID: G-7

SAMPLE DATE: February 12, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	ND
BROMOMETHANE	ND
VINYL CHLORIDE	ND
CHLOROETHANE	ND
METHYLENE CHLORIDE	ND
ACETONE	ND
1,1-DICHLOROETHYLENE	ND
1,1-DICHLOROETHANE	ND
1,2-DICHLOROETHYLENE	ND
CHLOROFORM	ND
1,2-DICHLOROETHANE	ND
1-BUTYL METHYL ETHER	ND
1,1,1-TRICHLOROETHANE	ND
CARBON TETRACHLORIDE	ND
BROMODICHLOROMETHANE	ND

1,2-DICHLOROPROPANE	ND
c-1,3-DICHLOROPROPENE	ND
t-1,3-DICHLOROPROPENE	ND
TCE (TRICHLOROETHYLENE)	ND
1,1,2-TRICHLOROETHANE	ND
DIBROMOCHLOROMETHANE	ND
BENZENE	ND
DIISOPROPYL ETHER	ND
2-CHLOROETHYL VINYL ETHER	ND
BROMOFORM	ND
1,1,2,2-TETRACHLOROETHANE	ND
PCE (TETRACHLOROETHYLENE)	ND
TOLUENE	ND
CHLOROBENZENE	ND
ETHYLBENZENE	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 111%
d₈ toluene - 126%
BFB -

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

x For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

x Other compounds detected: hydrocarbon RT 44 min. approx. 0.5 mg/kg (possibly octane)

INDUSTRIAL CORROSION MANAGEMENT, INC.

Michael J. L...

301699

**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584 0330

HJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52470

CLIENT: ENVIRO SCIENCES, INC. - Island Chemical Company Project SAMPLE ID: G-8

SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

**VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE -----	ND	1,2-DICHLOROPROPANE -----	ND
BROMOMETHANE -----	ND	c-1,3-DICHLOROPROPENE -----	ND
VINYL CHLORIDE -----	ND	t-1,3-DICHLOROPROPENE -----	ND
CHLOROETHANE -----	ND	TCE (TRICHLOROETHYLENE) -----	ND
METHYLENE CHLORIDE -----	ND	1,1,2-TRICHLOROETHANE -----	ND
ACETONE -----	ND	DIBROMOCHLOROMETHANE -----	ND
1,1-DICHLOROETHYLENE -----	ND	BENZENE -----	ND
1,1-DICHLOROETHANE -----	ND	DIISOPROPYL ETHER -----	ND
t-1,2-DICHLOROETHYLENE -----	ND	2-CHLOROETHYL VINYL ETHER -----	ND
CHLOROFORM -----	ND	BROMOFORM -----	ND
1,2-DICHLOROETHANE -----	ND	1,1,2,2-TETRACHLOROETHANE -----	ND
t-BUTYL METHYL ETHER -----	ND	PCE (TETRACHLOROETHYLENE) -----	ND
1,1,1-TRICHLOROETHANE -----	ND	TOLUENE -----	ND
CARBON TETRACHLORIDE -----	ND	CHLOROBENZENE -----	ND
BROMODICHLOROMETHANE -----	ND	ETHYLBENZENE -----	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 104%
d₈ toluene - 72%
RFB - 55%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

X For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

Other compounds detected: _____



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1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52471

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Company Project SAMPLE ID: G-9

SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

VOLATILE ORGANICS BY PURGE AND TRAP

By GC/MS - HEADSPACE

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	-----	ND
BROMOMETHANE	-----	ND
VINYL CHLORIDE	-----	ND
CHLOROETHANE	-----	ND
METHYLENE CHLORIDE	-----	ND
ACETONE	-----	ND
1,1-DICHLOROETHYLENE	-----	ND
1,1-DICHLOROETHANE	-----	ND
t-1,2-DICHLOROETHYLENE	-----	ND
CHLOROFORM	-----	ND
1,2-DICHLOROETHANE	-----	ND
t-BUTYL METHYL ETHER	-----	ND
1,1,1-TRICHLOROETHANE	-----	ND
CARBON TETRACHLORIDE	-----	ND
BROMODICHLOROMETHANE	-----	ND

1,2-DICHLOROPROPANE	-----	ND
c-1,3-DICHLOROPROPENE	-----	ND
t-1,3-DICHLOROPROPENE	-----	ND
TCE (TRICHLOROETHYLENE)	-----	ND
1,1,2-TRICHLOROETHANE	-----	ND
DIBROMODICHLOROMETHANE	-----	ND
BENZENE	-----	ND
DIISOPROPYL ETHER	-----	ND
2-CHLOROETHYL VINYL ETHER	-----	ND
BROMOFORM	-----	ND
1,1,2,2-TETRACHLOROETHANE	-----	ND
PCE (TETRACHLOROETHYLENE)	-----	ND
TOLUENE	-----	ND
CHLOROBENZENE	-----	ND
ETHYLBENZENE	-----	ND

SURROGATE RECOVERIES: d₂ methylene chloride - 102%
d₈ toluene - 76%
BFB - 68%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

X For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 0.02 mg/kg(ppm) dwb.

Other compounds detected: _____

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1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201 584 0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: March 10, 1986

LAB # 52473

CLIENT: ENVIRO SCIENCES, INC. - Island Chemical Company Project SAMPLE ID: G-11

SAMPLE DATE: February 19, 1986 SAMPLED BY: Alan Kyles AT LAB DATE: February 21, 1986

**VOLATILE ORGANICS BY PURGE AND TRAP
By GC/MS - HEADSPACE**

Compounds detected in parts per million (milligrams/kilograms) dry weight basis.

CHLOROMETHANE	-----	ND
BROMOMETHANE	-----	ND
VINYL CHLORIDE	-----	ND
CHLOROETHANE	-----	ND
METHYLENE CHLORIDE	-----	ND
ACETONE	-----	ND
1,1-DICHLOROETHYLENE	-----	ND
1,1-DICHLOROETHANE	-----	ND
t-1,2-DICHLOROETHYLENE	-----	ND
CHLOROFORM	-----	ND
1,2-DICHLOROETHANE	-----	ND
t-BUTYL METHYL ETHER	-----	ND
1,1,1-TRICHLOROETHANE	-----	ND
CARBON TETRACHLORIDE	-----	ND
BROMODICHLOROMETHANE	-----	ND

1,2-DICHLOROPROPANE	-----	ND
c-1,3-DICHLOROPROPENE	-----	ND
t-1,3-DICHLOROPROPENE	-----	ND
TCE (TRICHLOROETHYLENE)	-----	ND
1,1,2-TRICHLOROETHANE	-----	ND
DIBROMOCHLOROMETHANE	-----	ND
BENZENE	-----	ND
DIISOPROPYL ETHER	-----	ND
2-CHLOROETHYL VINYL ETHER	-----	ND
BROMOFORM	-----	ND
1,1,2,2-TETRACHLOROETHANE	-----	ND
PCE (TETRACHLOROETHYLENE)	-----	ND
TOLUENE	-----	ND
CHLOROBENZENE	-----	ND
ETHYLBENZENE	-----	ND

		WATER	SOIL
SURROGATE RECOVERIES:	d ₂ methylene chloride	101%	109%
	d ₈ toluene	173%	111%
	BBB	163%	65%

LT=Less Than, GT=Greater Than, ND=Not Detected
dwb=Dry Weight Basis

X For the above listed Volatile Pollutants, nothing detected at a sensitivity level of 5 ug/l(ppb)-water
0.1 ug/kg(ppm) - soil

Other compounds detected: _____



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1152 ROUTE 10, RANDOLPH, NEW JERSEY 07069 201 584-0330

State Certified Drinking Water/Wastewater Laboratory ID # 14116

REPORT DATE: April 22, 1986

LAB # 54501

SAMPLE SOURCE: ENVIRO SCIENCES

SAMPLE ID: Composite of G-6 and G-7

SAMPLE DATE: February 19, 1986

TAKEN BY: A. Kyles

AT LAB DATE: February 21, 1986

REACTIVATED DATE: April 10, 1986

EP TOXICITY TEST
Leachate Analysis (CFR Vol. 45, No. 28)

PARAMETERS TESTED Inorganic Chemicals by AA	TEST RESULT as mg/l	MDL	METHOD BLANK	MAXIMUM PERMISSIBLE Concentration as mg/l
Arsenic	LT 0.005	LT 0.005	LT 0.005	5.0
Barium	1.2	LT 0.5	LT 0.5	100.0
Cadmium	LT 0.02	LT 0.02	LT 0.02	1.0
Chromium	LT 0.02	LT 0.02	LT 0.02	5.0
Lead	0.24	LT 0.06	LT 0.06	5.0
Mercury	LT 0.010	LT 0.010	LT 0.010	0.2
Selenium	LT 0.005	LT 0.005	LT 0.005	1.0
Silver	LT 0.03	LT 0.03	LT 0.03	5.0

////////////////////////////////////
All results are reported in mg/l (ppm), unless otherwise stated.

We thank you for this opportunity to serve you. If you have any questions, please do not hesitate to call.

Very truly yours,
INDUSTRIAL CORROSION MGMT., INC.

Richard S. Levine
Richard S. Levine
President

RS:alh
encl.

301703



19 COPELAND RD., DENVER, NEW JERSEY 07834

NO's by GC/MS
Metals pb; Zn, Hg, Cd, Cr, Ni, Cu
Someone from Enviro to sign. Cha
CHAIN OF CUSTODY RECORD
Janet L. Miller of Custody
Rich Samuels G-6 7 4 11

Installation: <i>Isotro Chemical Company</i>				Samplers: (Signature) <i>Chad T. Miller</i>		
Survey No.:						
Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	Grao	
6-1	<i>Heavy Metals</i>	<i>1/1/82</i>	<i>9:11 AM</i>		<i>2</i>	<i>1</i>
6-1	<i>VO</i>	"	"		<i>2</i>	<i>2</i>
6-2	<i>Heavy Metals</i>	"	"		<i>1</i>	<i>1</i>
6-2	<i>VO</i>	"	"		<i>2</i>	<i>2</i>
6-3	<i>Heavy Metals</i>	"	"		<i>2</i>	<i>1</i>
6-3	<i>VO</i>	"	"		<i>1</i>	<i>2</i>
6-4	<i>Heavy Metals</i>	"	"		<i>2</i>	<i>1</i>
6-4	<i>VO</i>	"	"		<i>2</i>	<i>2</i>
6-5	<i>Heavy Metals</i>	"	"		<i>2</i>	<i>1</i>
6-5	<i>VO</i>	"	"		<i>2</i>	<i>2</i>
Relinquished by: (Sign.) <i>Janet L. Miller</i>		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.) <i>Chad T. Miller</i>		Rec'd by Laboratory for field analysis (Sign.)		Date/Time		
Dispatched by: (Sign.)		Date/Time		Rec'd for Laboratory by: <i>J. G. ...</i>		Date/Time <i>3-11-82</i>
Method of Shipment:				<i>11</i>		

301704



Per Al Kyle Phone Call.
2/24/86 4:00 PM
Janet L. Miller

CHAIN OF CUSTODY RECORD

Installation: <i>Island Chemical Company</i>		Samplers: (Signature) <i>Al Kyle</i>			
Survey No.:					
Sample No.	Station Location	Date	Time	Sample Type	
				Comp.	Grav
G-1	Heavy Metals	19 Feb 86	9:45 AM		X
G-2	VO	"	"		X
G-3	Heavy Metals	"	"		X
G-4	VO	"	"		X
G-5	Heavy Metals	"	"		X
G-6	VO	"	"		X
G-7	Heavy Metals	"	"		X
G-8	VO	"	"		X
G-9	Heavy Metals	"	"		X
G-10	VO	"	"		X
G-11	Heavy Metals	"	"		X
Relinquished by: (Sign.) <i>Al Kyle</i>		Received by: (Sign.)		Date/Time	
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time	
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time	
Relinquished by: (Sign.) <i>Paul P. Chiles</i>		Rec'd by Laboratory for field analysis (Sign.)		Date/Time	
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by: <i>J. Lyons</i>		Date/Time 2 -
Method of Shipment:					

301705



CHAIN OF CUSTODY RECORD

Per: H1 Kyles phone call
2/24/84 4:00 PM
Janet L. Miller

Installation: <i>Island Chemical Co.</i>		Samplers: (Signature) <i>Charles L. Kyles</i>				
Survey No.:						
Sample No.	Station Location	Date	Time	Sample Type		No. of Containers
				Comp.	Grab	
<i>1</i>	<i>Island Chemical Co.</i>	<i>19 Feb 84</i>	<i>9-11am</i>		<i>x</i>	<i>1</i>
<i>67</i>	<i>VO</i>	<i>"</i>	<i>"</i>		<i>x</i>	<i>2</i>
Relinquished by: (Sign.) <i>Charles L. Kyles</i>		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.)		Received by: (Sign.)		Date/Time		
Relinquished by: (Sign.) <i>C. P. R. Ellis</i>		Rec'd by Laboratory for field analysis (Sign.)		Date/Time		
Dispatched by: (Sign.)		Date/Time	Rec'd for Laboratory by: <i>J. Lyman</i>		Date/Time <i>2-21-84</i>	
Method of Shipment: <i>4 30 pm</i>						



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NOTES: Corroded Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: May 2, 1986

LAB # 53581

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: Tank 4

SAMPLE DATE: March 12, 1986 TAKEN BY: A. Kvles AT LAB DATE: March 20, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Benzoquinone -----	<u>30%</u>
Fluorenone -----	<u>70%</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301707



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: May 2, 1986

LAB # 53582

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: Tank 7

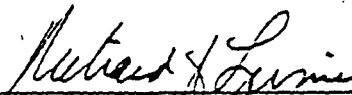
SAMPLE DATE: March 12, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 20, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Benzophenone -----	<u>39.6%</u>
Fluorenone -----	<u>43.8%</u>
Unknown Alkane -----	<u>16.6%</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301708



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07369 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: May 2, 1986

LAB # 53583

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: Tank 8

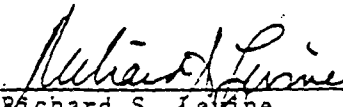
SAMPLE DATE: March 12, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 20, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Benzophenone -----	<u>85.7%</u>
Fluoenone -----	<u>14.3%</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.



Richard S. Levine
President

RSL:dlh

301709



LABORATORY ID #14116

LAB # 53583

CLIENT: ENVIRO SCIENCES INC. - Island Chemical

SAMPLE SOURCE Tank 8

GC/MS Method 624*
Tier II Deliverables

<u>PARAMETER</u>	<u>RESULT</u> ug/ kg	<u>METHOD</u> <u>BLANK</u> ug/kg	<u>MDL</u> ug/kg
Chloromethane -----	U	U	100
Bromomethane -----	U	U	100
Vinyl Chloride -----	U	U	100
Chloroethane -----	U	U	100
Methylene Chloride -----	U	U	100
1,1-Dichloroethene -----	U	U	100
1,1-Dichloroethane -----	U	U	100
Trans-1,2-Dichloroethene -----	U	U	100
Chloroform -----	U	U	100
1,2-Dichloroethane -----	U	U	100
1,1,1-Trichloroethane -----	U	U	100
Carbon Tetrachloride -----	U	U	100
Bromodichloromethane -----	U	U	100
1,2-Dichloropropane -----	U	U	100
Trans-1,3-Dichloropropene -----	U	U	100
Trichloroethene -----	U	U	100
Dibromochloromethane -----	U	U	100
1,1,2-Trichloroethane -----	U	U	100
Benzene -----	U	U	100
cis-1,3-Dichloropropene -----	U	U	100
2-Chloroethylvinylether -----	U	U	100
Bromoform -----	U	U	100
Tetrachloroethene -----	U	U	100
1,1,2,2-Tetrachloroethane -----	U	U	100
Toluene -----	8000	2.7J	100
Chlorobenzene -----	U	U	100
Ethylbenzene -----	U	U	100
Total Xylenes -----	U	U	100

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

INDUSTRIAL CORROSION MANAGEMENT, INC.



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INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: May 2, 1986

LAB # 53584

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: Tank 9

SAMPLE DATE: March 12, 1986 TAKEN BY: A. Kvles AT LAB DATE: March 20, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
p-Pheneridine -----	<u>89.1%</u>
Unknown aromatic MW=217 ----	<u>10.9%</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

RSL:dlh

301711



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CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: May 2, 1986

LAB # 53589

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Protect

SAMPLE SOURCE: Tank 14

SAMPLE DATE: March 12, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 20, 1986

LABORATORY ANALYSIS
REPORT

<u>PARAMETER</u>	<u>RESULT</u>
Benzophenone -----	<u>64.8%</u>
Fluorenone -----	<u>35.2%</u>

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

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
President

RSL:dlh



LABORATORY ID #14116

LAB # 53362

CLIENT: ENVIRO SCIENCES - Island Chemical Products

SAMPLE SOURCE 085-251-ESI

GC/MS Method 624 *
Tier II Deliverables

PARAMETER	RESULT	METHOD BLANK	MDL	SPIKE	DUP SPIKE	RPD
	ug/kg	ug/kg	ug/kg			
Chloromethane -----	U	U	10	200	144	33
Bromomethane -----	U	U	10	240	193	22
Vinyl Chloride -----	U	U	10	156	127	19
Chloroethane -----	U	U	10	44	116	90
Methylene Chloride -----	U	7.5J	10	132	101	27
1,1-Dichloroethene -----	U	U	10	90	96	8.6
1,1-Dichloroethane -----	U	U	10	90	108	18
Trans-1,2-Dichloroethene -----	U	U	10	106	113	6.4
Chloroform -----	U	7.8J	10	106	119	12
1,2-Dichloroethane -----	U	U	10	106	132	22
1,1,1-Trichloroethane -----	U	U	10	112	121	7.7
Carbon Tetrachloride -----	U	U	10	104	151	39
Bromodichloromethane -----	U	U	10	98	153	44
1,2-Dichloropropane -----	U	U	10	104	116	11
Trans-1,3-Dichloropropene -----	U	U	10	104	120	14
Trichloroethene -----	U	U	10	126	132	4.7
Dibromochloromethane -----	U	U	10	118	137	15
1,1,2-Trichloroethane -----	U	U	10	96	125	26
Benzene -----	U	2.0J	10	100	105	4.9
cis-1,3-Dichloropropene -----	U	U	10	104	118	13
2-Chloroethylvinylether -----	U	U	10	102	119	15
Bromoform -----	U	U	10	98	144	38
Tetrachloroethene -----	U	U	10	114	72	45
1,1,2,2-Tetrachloroethane -----	U	U	10	76	38	15
Toluene -----	U	4.9J	10	102	65	44
Chlorobenzene -----	U	U	10	104	116	11
Ethylbenzene -----	U	U	10	114	110	3.6
Total Xylenes -----	U	U	10	130	115	12

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

301714

LABORATORY ID #14116

LAB # 53363

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE 085-252-ESI

GC/MS Method 624*
Tier II Deliverables

<u>PARAMETER</u>	<u>RESULT</u>	<u>METHOD</u> <u>BLANK</u>	<u>MDL</u>
	<u>ug/kg</u>	<u>ug/kg</u>	
Chloromethane -----	U	U	10
Bromomethane -----	U	U	10
Vinyl Chloride -----	U	U	10
Chloroethane -----	U	U	10
Methylene Chloride -----	LSB	7.5J	10
1,1-Dichloroethene -----	U	U	10
1,1-Dichloroethane -----	U	U	10
Trans-1,2-Dichloroethene -----	U	U	10
Chloroform -----	U	7.5J	10
1,2-Dichloroethane -----	U	U	10
1,1,1-Trichloroethane -----	U	U	10
Carbon Tetrachloride -----	U	U	10
Bromodichloromethane -----	U	U	10
1,2-Dichloropropane -----	U	U	10
Trans-1,3-Dichloropropene -----	U	U	10
Trichloroethene -----	U	U	10
Dibromochloromethane -----	U	U	10
1,1,2-Trichloroethane -----	U	U	10
Benzene -----	U	2.0J	10
cis-1,3-Dichloropropene -----	U	U	10
2-Chloroethylvinylether -----	U	U	10
Bromoform -----	U	U	10
Tetrachloroethene -----	U	U	10
1,1,2,2-Tetrachloroethane -----	U	U	10
Toluene -----	U	4.9J	10
Chlorobenzene -----	U	U	10
Ethylbenzene -----	U	U	10
Total Xylenes -----	U	U	10

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

301715

PRIORITY POLLUTANT VOLATILE ORGANIC ANALYSIS

LABORATORY ID #1411

LAB # 53364

CLIENT: ENVIRO SCIENCES - Island Chemical Products

SAMPLE SOURCE 85-252-ESI

GC/MS Method 624*
Tier II Deliverables

PARAMETER	RESULT ug/kg	METHOD BLANK ug/kg	MDL
Chloromethane -----	U	U	10
Bromomethane -----	U	U	10
Vinyl Chloride -----	U	U	10
Chloroethane -----	U	U	10
Methylene Chloride -----	U	7.5J	10
1,1-Dichloroethene -----	U	U	10
1,1-Dichloroethane -----	U	U	10
Trans-1,2-Dichloroethene -----	U	U	10
Chloroform -----	8.2B	7.3J	10
1,2-Dichloroethane -----	U	U	10
1,1,1-Trichloroethane -----	U	U	10
Carbon Tetrachloride -----	U	U	10
Bromodichloromethane -----	U	U	10
1,2-Dichloropropane -----	U	U	10
Trans-1,3-Dichloropropene -----	U	U	10
Trichloroethene -----	U	U	10
Dibromochloromethane -----	U	U	10
1,1,2-Trichloroethane -----	U	U	10
Benzene -----	U	2.0J	10
cis-1,3-Dichloropropene -----	U	U	10
2-Chloroethylvinylether -----	U	U	10
Bromoform -----	U	U	10
Tetrachloroethene -----	U	U	10
1,1,2,2-Tetrachloroethane -----	U	U	10
Toluene -----	4.4B	4.9J	10
Chlorobenzene -----	U	U	10
Ethylbenzene -----	2.8J	U	10
Total Xylenes -----	U	U	10

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

301716

LABORATORY ID #14115

LAB # 53365

CLIENT: ENVIRO SCIENCES - Island Chemical Products

SAMPLE SOURCE 085-254-EST

GC/MS Method 624 *
Tier II Deliverables

PARAMETER	RESULT	METHOD BLANK	MDL
	ug/kg	ug/kg	
Chloromethane -----	U	U	10
Bromomethane -----	U	U	10
Vinyl Chloride -----	U	U	10
Chloroethane -----	U	U	10
Methylene Chloride -----	8.73	7.50	10
1,1-Dichloroethene -----	U	U	10
1,1-Dichloroethane -----	U	U	10
Trans-1,2-Dichloroethene -----	U	U	10
Chloroform -----	9.23	7.30	10
1,2-Dichloroethane -----	U	U	10
1,1,1-Trichloroethane -----	U	U	10
Carbon Tetrachloride -----	U	U	10
Bromodichloromethane -----	U	U	10
1,2-Dichloropropane -----	U	U	10
Trans-1,3-Dichloropropene -----	U	U	10
Trichloroethene -----	U	U	10
Dibromochloromethane -----	U	U	10
1,1,2-Trichloroethane -----	U	U	10
Benzene -----	U	2.00	10
cis-1,3-Dichloropropene -----	U	U	10
2-Chloroethylvinylether -----	U	U	10
Bromoform -----	U	U	10
Tetrachloroethene -----	U	U	10
1,1,2,2-Tetrachloroethane -----	U	U	10
Toluene -----	U	4.90	10
Chlorobenzene -----	U	U	10
Ethylbenzene -----	U	U	10
Total Xylenes -----	U	U	10

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

301717

LABORATORY ID #14116

LAB # 53366

CLIENT: ENVIRO SCIENCES - Island Chemical Products

SAMPLE SOURCE 085-255-ESI

GC/MS Method 624*
Tier II Deliverables

PARAMETER	RESULT ug/kg	METHOD BLANK ug/kg	MDL
Chloromethane -----	U	U	10
Bromomethane -----	U	U	10
Vinyl Chloride -----	U	U	10
Chloroethane -----	U	U	10
Methylene Chloride -----	153	7.50	10
1,1-Dichloroethene -----	U	U	10
1,1-Dichloroethane -----	U	U	10
Trans-1,2-Dichloroethene -----	U	U	10
Chloroform -----	5.43	7.83	10
1,2-Dichloroethane -----	U	U	10
1,1,1-Trichloroethane -----	U	U	10
Carbon Tetrachloride -----	U	U	10
Bromodichloromethane -----	U	U	10
1,2-Dichloropropane -----	U	U	10
Trans-1,3-Dichloropropene -----	U	U	10
Trichloroethene -----	U	U	10
Dibromochloromethane -----	U	U	10
1,1,2-Trichloroethane -----	U	U	10
Benzene -----	U	2.03	10
cis-1,3-Dichloropropene -----	U	U	10
2-Chloroethylvinylether -----	U	U	10
Bromoform -----	U	U	10
Tetrachloroethene -----	U	U	10
1,1,2,2-Tetrachloroethane -----	U	U	10
Toluene -----	U	4.93	10
Chlorobenzene -----	U	U	10
Ethylbenzene -----	U	U	10
Total Xylenes -----	U	U	10

*Dichlorobenzenes not analyzed under this method. Analyzed by GC/MS Method 625.

VO-EC/MS

CHAIN OF CUSTODY

WILCO SCIENCES INC.

366-6256

Send Report To:

Allen L. Kyles

Location:

Richard Chemical Co. (ICC)

Sampler(s)

Name:

Signature:

Allen L. Kyles

Allen L. Kyles

Sampling Series: EPA SW-846

Sample Identification	Sampling Location Point	Sampling Date	Sampling Time	Sample Type		Analysis Required	No. of Containers
				Comp.	Grab		
15-251-EI	Cur. C-1	13/11/86	1:00		X	CA	2
15-252-EI	Cur. C-2	"	1:30		X	CA	2
15-253-EI	Cur. C-3	"	2:00		X	CA	2
15-254-EI	Lab. Air	"	2:30		X	CA	2
15-255-EI	Lab. Air	"	3:00		X	CA	2

Relinquished By: (Sign.)

Received By: (Sign.)

Date/Time

Relinquished By: (Sign.)

Received By: (Sign.)

Date/Time

Auto Bioxette

12/17/86
12:10

Relinquished To Laboratory By: (Sign.)

Received For Laboratory By: (Sign.)

Date/Time

Method Of Relinquishment:

Name Of Laboratory:

ANALYSIS REQUIRED	CODE	ANALYSIS	CODE	ANALYSIS	CODE	ANALYSIS	CODE
Put code in proper column.							
Priority pollutant+40:	01	Nickel:	06	Zinc:	13	TSS:	20
Petroleum hydrocarbons:	02	Chromium:	07	Cadmium:	14	TDS:	21
Volatile organics (GC):	03	Arsenic:	08	Selenium:	15	pH:	22
Volatile organics (GC/MS):	04	Copper:	09	Silver:	16	PCB:	23
Cyanides:	05	Lead:	10	Barium:	17	Other:	24
		Mercury:	11	COD:	18	(Specify)	
		Antimony:	12	BOD:	19		

301719

VINTAGE SCIENCES INC.

CHAIN OF CUSTODY

Non-VO's

7

366-6256

Send Report To:

Ken L. Kyles

Installation:

Ischem Chemical Co. (ICC)

Sampler(s)

Name:

Signature:

Ken L. Kyles

Charles L. Kyles

Sampling Series:

EPA SFLIR

Sample Identification	Sampling Location Point	Sampling Date	Sampling Time	Sample Type		Analysis Required	No. of Containers
				Comp.	Grab		
15-251-EI	Lot G-1	13 MAR 86	1:00 PM		X	24	1
15-252-EI	Lot G-2	"	1:30 PM		X	24	1
15-253-EI	Lot G-3	"	2:00 PM		X	24	1
15-254-EI	Lab Pit	"	3:30 PM		X	24	1
15-255-EI	Lab Pit	"	5:00 PM		X	24	1

Relinquished By: (Sign.)

Received By: (Sign.)

Date/Time

Relinquished By: (Sign.)

Received By: (Sign.)

Date/Time

K. S.

Cinta Bismette

3/17/86 12:10

Relinquished To Laboratory By: (Sign.)

Received For Laboratory By: (Sign.)

Date/Time

Method Of Relinquishment:

Name Of Laboratory:

ANALYSIS REQUIRED (put code in proper column)	CODE	ANALYSIS	CODE	ANALYSIS	CODE	ANALYSIS	CODE
Priority pollutant +40:	01	Nickel:	06	Zinc:	13	TSS:	20
Petroleum hydrocarbons:	02	Chromium:	07	Cadmium:	14	TDS:	21
Volatile organics (GC):	03	Arsenic:	08	Selenium:	15	pH:	22
Volatile organics (GC/MS):	04	Copper:	09	Silver:	16	PCB:	23
Cyanides:	05	Lead:	10	Barium:	17	Other:	24
		Mercury:	11	COD:	18	(Specify)	
		Antimony:	12	BOD:	19	Non-Volatil Org	

301720



1152 ROUTE 10, RANDOLPH, N.J. 07070-5146

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: May 2, 1986

LAB # 53362

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-251-ESI

SAMPLE DATE: 3/13/86 SAMPLED BY: Al Kyles AT LAB DATE: 3/17/86

ACID EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS + 10 PEAKS

ACID EXTRACTABLES PRIORITY POLLUTANTS + 10 Peaks

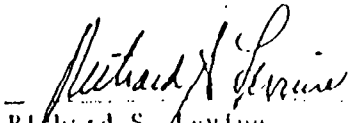
2-chlorophenol	3300
2-nitrophenol	3300
phenol	3300
2,4,-dimethylphenol	3300
2,4,-dichlorophenol	3300
pentachlorophenol	16500
2,4-dinitrophenol	16500
4,6-dinitro-o-cresol	16500
4-nitrophenol	16500
2,4,6-trichlorophenol	3300
4-chloro-3 methyl phenol	3300

All results are reported in ug/kg(pph) dry weight basis.

SURROGATE RECOVERIES

2-Fluorophenol	75.8%
Phenol-d5	59.5%
2,4,6-Tribromophenol	59.1%

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL: dlh
LT=Less Than
ND=Not Detected

301721



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1122 ACUTE RD. RANDO, PH. NEW JERSEY 07866 201 564-6330

RJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: May 2, 1986

LAB # 53363

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-252-ESI

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kyles AT LAB DATE: 3/17/86

ACID EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS+ 10 PEAKS

ACID EXTRACTABLES PRIORITY POLLUTANTS + 10 Peaks

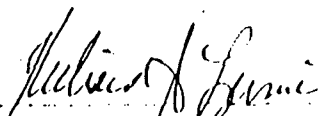
2-chlorophenol	3300
2-nitrophenol	3300
phenol	3300
2,4,-dimethylphenol	3300
2,4,-dichlorophenol	3300
pentachlorophenol	16500
2,4-dinitrophenol	16500
4,6-dinitro-o-cresol	16500
4-nitrophenol	16500
2,4,6-trichlorophenol	3300
4-chloro-3 methyl phenol	3300

All results are reported in ug/kg(ppb) dry weight basis.

SURROGATE RECOVERIES

2-Fluorophenol	98.5%
Phenol-d5	78.8%
2,4,6-Tribromophenol	90.6%

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:
LT=Less Than
ND=Not Detected

301722



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1105 ROUTE 10, RANDOLPH, NEW JERSEY 07068 201-584-4330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: May 2, 1986

LAB # 53364

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 85-252-EST

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kyles AT LAB DATE: 3/17/86

ACID EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS + 10 PEAKS

ACID EXTRACTABLES PRIORITY POLLUTANTS + 10 Peaks

2-chlorophenol	3300
2-nitrophenol	3300
phenol	3300
2,4,-dimethylphenol	3300
2,4,-dichlorophenol	3300
pentachlorophenol	16500
2,4-dinitrophenol	16500
4,6-dinitro-o-cresol	16500
4-nitrophenol	16500
2,4,6-trichlorophenol	3300
4-chloro-3 methyl phenol	3300

All results are reported in ug/kg(ppb) dry weight basis.

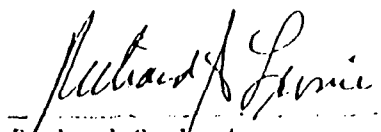
SURROGATE RECOVERIES

2-Fluorophenol	65%
Phenol d5	52%
2,4,6-Tribromophenol	38%

OTHER COMPOUNDS DETECTED APPROXIMATE CONCENTRATIONS

Unknown hydrocarbon peaks totalling 26 --- 7,700

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dih
LT=Less Than
ND=Not Detected

301723

**ICM INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1122 RD. TE 10, RANDO, PH, NEW JERSEY 07866 201 514-6330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: May 2, 1986

LAB # 53365

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-254-ESI

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kyle AT LAB DATE: 3/17/86

ACID EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS+10 PEAKS

ACID EXTRACTABLES PRIORITY POLLUTANTS + 10 Peaks

2-chlorophenol	3300
2-nitrophenol	3300
phenol	3300
2,4,-dimethylphenol	3300
2,4,-dichlorophenol	3300
pentachlorophenol	16500
2,4-dinitrophenol	16500
4,6-dinitro-o-cresol	16500
4-nitrophenol	16500
2,4,6-trichlorophenol	3300
4-chloro-3 methyl phenol	3300

All results are reported in ug/kg(ppb) dry weight basis.

SURROGATE RECOVERIES

2-Fluorophenol	63.8%
Phenol-d5	51.4%
2,4,6-Tribromophenol	52.5%

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

301724

RSL: dlh
LT=Less Than
ND=Not Detected

**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1002 ROUTE 10 RANDOLPH NEW JERSEY 07066 201 584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: May 2, 1986

LAB # 53366

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-255-EST

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kyles AT LAB DATE: 3/17/86

ACID EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS + 10 PEAKS

ACID EXTRACTABLES PRIORITY POLLUTANTS + 10 Peaks

2-chlorophenol	3300
2-nitrophenol	3300
phenol	3300
2,4,-dimethylphenol	3300
2,4,-dichlorophenol	3300
pentachlorophenol	16500
2,4-dinitrophenol	16500
4,6-dinitro-o-cresol	16500
4-nitrophenol	16500
2,4,6-trichlorophenol	3300
4-chloro-3 methyl phenol	3300

All results are reported in ug/kg(ppb) dry weight basis

SURROGATE RECOVERIES

2-Fluorophenol	98.2%
Phenol-d5	81.4%
2,4,6-Trichlorophenol	96.5%

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

301725

RSL: dlh
LT=Less Than
ND=Not Detected



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: May 2, 1986

LAB # 53363

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-252-ESI

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kvles AT LAB DATE: 3/17/86

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS + 40
by GC/MS + 15 PEAKS

Parameter	Result	Parameter	Result
acenaphthene -----	330U	diethyl phthalate -----	330U
acenaphthylene -----	330U	dimethyl phthalate -----	330U
anthracene -----	330U	di-n-butyl phthalate -----	330U
benzidine -----	1450U	2,4-dinitrocoluene -----	1450U
benzo(a)anthracene -----	330U	2,6-dinitrocoluene -----	330U
benzo(a)pyrene -----	330U	di-n-octyl phthalate -----	330U
3,4-benzofluoranthene -----	330U	1,2-diphenylhydrazine(as azobenzene)-	1450U
benzo(ghi)perylene -----	330U	fluoranthene -----	330U
benzo(k)fluoranthene -----	330U	fluorene -----	330U
bis(2-chloroethoxy)methane -----	330U	hexachlorobenzene -----	330U
bis(2-chloroethyl)ether -----	330U	hexachlorobutadiene -----	330U
bis(2-chloroisopropyl)ether -----	330U	hexachlorocyclopentadiene -----	330U
bis(2-ethylhexyl)phthalate -----	330U	hexachloroethane -----	330U
4-bromophenyl phenyl ether -----	330U	indeno(1,2,3-cd)pyrene -----	330U
butylbenzyl phthalate -----	330U	isophorone -----	330U
2-chloronaphthalene -----	330U	naphthalene -----	330U
4-chlorophenyl phenyl ether -----	330U	nitrobenzene -----	330U
chrysene -----	330U	N-nitrosodimethylamine -----	330U
dibenzo(a,h)anthracene -----	330U	N-nitrosodi-n-propylamine -----	330U
1,2-dichlorobenzene -----	330U	N-nitrosodiphenylamine -----	330U
1,3-dichlorobenzene -----	330U	phenanthrene -----	330U
1,4-dichlorobenzene -----	330U	pyrene -----	330U
3,3-dichlorobenzidine -----	660U	1,2,4-trichlorobenzene -----	330U

SURROGATES

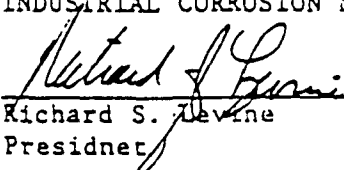
LT=Less Than
ND=Not Detected

d5-Nitrobenzene - 84.0%
2-Fluorobiphenyl -113.0%
4-Terphenyl-d14 -123.1%

APPROXIMATE CONCENTRATION
OTHER COMPOUNDS DETECTED

All results are reported in ug/kg(ppb)dry weight basis.

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Devine
President



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: May 2, 1986

LAB # 53364

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 85-252-ESI

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kvles AT LAB DATE: 3/17/86

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS + 40
by GC/MS + 15 PEAKS

Parameter	Result	Parameter	Result
aceneophthene	330U	diethyl phthalate	330U
aceneophthylene	330U	dimethyl phthalate	330U
anthracene	330U	di-n-butyl phthalate	330U
benzidine	1452U	2,4-dinitrotoluene	1450U
benzo(a)anthracene	330U	2,6-dinitrotoluene	330U
benzo(a)pyrene	330U	di-n-octyl phthalate	330U
3,4-benzofluoranthene	330U	1,2-diphenylhydrazine(as azobenzene)-	1450U
benzo(ghi)perylene	330U	fluoranthene	330U
benzo(k)fluoranthene	330U	fluorene	330U
bis(2-chloroethoxy)methane	330U	hexachlorobenzene	330U
bis(2-chloroethyl)ether	330U	hexachlorobutadiene	330U
bis(2-chloroisopropyl)ether	330U	hexachlorocyclopentadiene	330U
bis(2-ethylhexyl)phthalate	330U	hexachloroethane	330U
4-bromophenyl phenyl ether	330U	indeno(1,2,3-cd)pyrene	330U
butylbenzyl phthalate	330U	isophorone	330U
2-chloronaphthalene	330U	naphthalene	330U
4-chlorophenyl phenyl ether	330U	nitrobenzene	330U
chrysene	330U	N-nitrosodimethylamine	330U
dibenzo(a,h)anthracene	330U	N-nitrosodi-n-propylamine	330U
1,2-dichlorobenzene	330U	N-nitrosodiphenylamine	330U
1,3-dichlorobenzene	330U	phenanthrene	330U
1,4-dichlorobenzene	330U	pyrene	330U
3,3-dichlorobenzidine	660U	1,2,4-trichlorobenzene	330U

SURROGATES

d5-Nitrobenzene - 37%

2-Fluorobiphenyl - 70%

4-Terphenyl-d14 - 58%

LT=Less Than
ND=Not Detected

APPROXIMATE CONCENTRATION
OTHER COMPOUNDS DETECTED

All results are reported in ug/kg(ppb) dry weight basis

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

RSL:dlh

301727



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJOEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: May 2, 1986

LAB # 53365

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: -085-254-EST

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kyles AT LAB DATE: 3/17/86

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS + 40
by GC/MS + 15 PEAKS

Parameter	Result	Parameter	Result
aceneophthene -----	330U	diethyl phthalate -----	330U
acenaonthylene -----	330U	dimethyl phthalate -----	330U
anthracene -----	330U	di-n-butyl phthalate -----	330U
benzidine -----	1452U	2,4-dinitrotoluene -----	1450U
benzo(a)anthracene -----	330U	2,6-dinitrotoluene -----	330U
benzo(a)pyrene -----	330U	di-n-octyl phthalate -----	330U
3,4-benzofluoranthene -----	330U	1,2-diphenylhydrazine(as azobenzene)-	1450U
benzo(ghi)perylene -----	330U	fluoranthene -----	330U
benzo(k)fluoranthene -----	330U	fluorene -----	330U
bis(2-chloroethoxy)methane ----	330U	hexachlorobenzene -----	330U
bis(2-chloroethyl)ether -----	330U	hexachlorobutadiene -----	330U
bis(2-chloroisopropyl)ether ----	330U	hexachlorocyclopentadiene -----	330U
bis(2-ethylhexyl)phthalate ----	330U	hexachloroethane -----	330U
4-bromophenyl phenyl ether ----	330U	indeno(1,2,3-cd)pyrene -----	330U
butylbenzyl phthalate -----	330U	isophorone -----	330U
2-chloronaphthalene -----	330U	naphthalene -----	330U
4-chlorophenyl phenyl ether ---	330U	nitrobenzene -----	330U
chrysene -----	330U	N-nitrosodimethylamine -----	330U
dibenzo(a,h)anthracene -----	330U	N-nitrosodi-n-propylamine -----	330U
1,2-dichlorobenzene -----	330U	N-nitrosodiphenylamine -----	330U
1,3-dichlorobenzene -----	330U	phenanthrene -----	330U
1,4-dichlorobenzene -----	330U	pyrene -----	330U
3,3-dichlorobenzidine -----	660U	1,2,4-trichlorobenzene -----	330U

SURROGATES

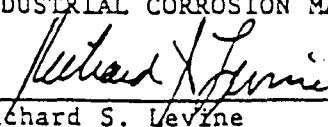
d5-Nitrobenzene - 37%
2-Fluorobiphenyl - 69.7%
4-Terphenyl-d14 - 72.1%

LT=Less Than
ND=Not Detected

APPROXIMATE CONCENTRATION
OTHER COMPOUNDS DETECTED

All results are reported in ug/kg(ppb) dry weight basis.

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301728



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certif. Drinking Water/
Wastewater Laboratory 10 #14116

REPORT DATE: May 2, 1986

LAB # 53366

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-534-0330

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-255-EST

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kyles AT LAB DATE: 3/17/86

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS + 40
by GC/MS + 15 PEAKS

Parameter	Result	Parameter	Result
acenaphthene -----	330U	diethyl phthalate -----	330U
acenaphthylene -----	330U	dimethyl phthalate -----	330U
anthracene -----	330U	di-n-butyl phthalate -----	330U
benzidine -----	1452U	2,4-dinitrotoluene -----	1450U
benzo(a)anthracene -----	330U	2,6-dinitrotoluene -----	330U
benzo(a)pyrene -----	330U	di-n-octyl phthalate -----	330U
3,4-benzofluoranthene -----	330U	1,2-diphenylhydrazine(as azobenzene)-	1450U
benzo(ghi)perylene -----	330U	fluoranthene -----	330U
benzo(k)fluoranthene -----	330U	fluorene -----	330U
bis(2-chloroethoxy)methane -----	330U	hexachlorobenzene -----	330U
bis(2-chloroethyl)ether -----	330U	hexachlorobutadiene -----	330U
bis(2-chloroisopropyl)ether -----	330U	hexachlorocyclopentadiene -----	330U
bis(2-ethylhexyl)phthalate -----	330U	hexachloroethane -----	330U
4-bromophenyl phenyl ether -----	330U	indeno(1,2,3-cd)pyrene -----	330U
butylbenzyl phthalate -----	330U	isophorone -----	330U
2-chloronaphthalene -----	330U	naphthalene -----	330U
4-chlorophenyl phenyl ether -----	330U	nitrobenzene -----	330U
chrysene -----	330U	N-nitrosodimethylamine -----	330U
dibenzo(a,h)anthracene -----	330U	N-nitrosodi-n-propylamine -----	330U
1,2-dichlorobenzene -----	330U	N-nitrosodiphenylamine -----	330U
1,3-dichlorobenzene -----	330U	phenanthrene -----	330U
1,4-dichlorobenzene -----	330U	pyrene -----	330U
3,3-dichlorobenzidine -----	660U	1,2,4-trichlorobenzene -----	330U

SURROGATES

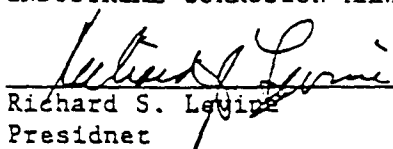
d5-Nitrobenzene
2-Fluorobiphenyl] no surrogates added
4-Terphenyl-d14

LT=Less Than
ND=Not Detected

APPROXIMATE CONCENTRATION
OTHER COMPOUNDS DETECTED

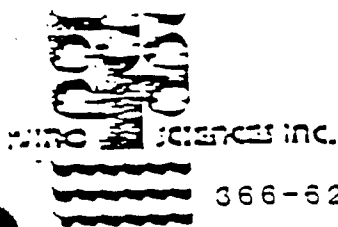
All results are reported in ug/kg(ppb)dry weight basis.

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301729



CHAIN OF CUSTODY

PCB

17

366-6256

Send Report To: *Alan J. Kefler*

Qualification:

Island Chemical Co. (ICC)

Sampler(s)

Name:

Signature:

Sampling Series: *EPA SPLITS**Alan J. Kefler**Alan J. Kefler*

Sample Identification	Sampling Location Point	Sampling Date	Sampling Time	Sample Type		Analysis Required	No. Of Containers
				Comp.	Grab		
<i>15-251-EI</i>	<i>OUT, G-1</i>	<i>13 MAR. 86</i>	<i>1:00</i>		<i>X</i>	<i>23</i>	<i>1</i>
<i>15-252-EI</i>	<i>OUT, G-3</i>	<i>"</i>	<i>1:30</i>		<i>X</i>	<i>23</i>	<i>1</i>
<i>15-253-EI</i>	<i>OUT, G-6</i>	<i>"</i>	<i>2:00</i>		<i>X</i>	<i>23</i>	<i>1</i>
<i>15-254-EI</i>	<i>LTC PIT</i>	<i>"</i>	<i>3:00</i>		<i>X</i>	<i>23</i>	<i>1</i>
<i>15-255-EI</i>	<i>LTC PIT</i>	<i>"</i>	<i>3:30</i>		<i>X</i>	<i>23</i>	<i>1</i>

Relinquished By: (Sign.)

Received By: (Sign.)

Date/Time

Relinquished By: (Sign.)

Received By: (Sign.)

Date/Time

*Ante Bismette**12/17/86*
12:10

Relinquished To Laboratory By: (Sign.)

Received For Laboratory By: (Sign.)

Date/Time

Method Of Relinquishment:

Name Of Laboratory:

ANALYSIS REQUIRED	CODE	ANALYSIS	CODE	ANALYSIS	CODE	ANALYSIS	CODE
put code in proper column)							
Priority pollutant +40:	01	Nickel:	06	Zinc:	13	TSS:	20
Petroleum hydrocarbons:	02	Chromium:	07	Cadmium:	14	TDS:	21
Volatile organics (GC):	03	Arsenic:	08	Selenium:	15	pH:	22
Volatile organics (GC/MS):	04	Copper:	09	Silver:	16	PCB:	23
Cyanides:	05	Lead:	10	Barium:	17	Other:	24
		Mercury:	11	COD:	18	(Specify)	
		Antimony:	12	BOD:	19		

301730



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 53362

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: 085-251-ESI

SAMPLE DATE: March 13, 1986 TAKEN BY: A. Kulas AT LAB DATE: March 17, 1986

MATRIX: Soil

PCB ANALYSIS

Method 608 by Gas Chromatography with Electron Capture

<u>PARAMETER</u>	<u>RESULT</u>	<u>SPIKE</u>	<u>DUP SPIKE</u>	<u>RPD</u>	<u>DETECTION LIMITS</u>
Arochlor 1016 ----	ND	X	X	X	0.1
Arochlor 1221 ----	ND	X	X	X	0.1
Arochlor 1232 ----	ND	X	X	X	0.1
Arochlor 1242 ----	ND	X	X	X	0.1
Arochlor 1248 ----	ND	X	X	X	0.1
Arochlor 1254 ----	ND	X	X	X	0.1
Arochlor 1260 ----	ND	X	X	X	0.1

All results are reported in mg/kg(ppm) dry weight basis.

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

DBC SURROGATE RECOVERIES:

Blank: ***
Sample: 39%
Spike: ***
Spike Dup:***

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
President

RSL: dlh
ND=Not Detection
RPD=Relative Percent Difference

PCBEC0125
PCBECW/S150

301731



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 53363

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: 085-252-ESI

SAMPLE DATE: March 13, 1986 TAKEN BY: A. Kvles AT LAB DATE: March 17, 1986

MATRIX: Soil

PCB ANALYSIS

Method 608 by Gas Chromatography with Electron Capture

PARAMETER	RESULT	SPIKE	DUP SPIKE	RPD	DETECTION LIMITS
Arochlor 1016 ----	ND	X	X	X	0.1
Arochlor 1221 ----	ND	X	X	X	0.1
Arochlor 1232 ----	ND	X	X	X	0.1
Arochlor 1242 ----	ND	X	X	X	0.1
Arochlor 1248 ----	ND	X	X	X	0.1
Arochlor 1254 ----	ND	X	X	X	0.1
Arochlor 1260 ----	ND	X	X	X	0.1

All results are reported in mg/kg(ppm) dry weight basis.

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

DBC SURROGATE RECOVERIES:

Blank: ***
Sample: 61%
Spike: ***
Spike Dup: ***

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

RSL: dlh
ND=Not Detection
RPD=Relative Percent Difference

PCBEC0125
PCBECW/S150

301732



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 53364

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-534-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: 85-253-ESI

SAMPLE DATE: March 13, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 17, 1986

MATRIX: Soil

PCB ANALYSIS

Method 608 by Gas Chromatography with Electron Capture

<u>PARAMETER</u>	<u>RESULT</u>	<u>SPIKE</u>	<u>DUP SPIKE</u>	<u>RPD</u>	<u>DETECTION LIMITS</u>
Arochlor 1016 ----	ND	X	X	X	1.0
Arochlor 1221 ----	ND	X	X	X	1.0
Arochlor 1232 ----	ND	X	X	X	1.0
Arochlor 1242 ----	ND	X	X	X	1.0
Arochlor 1248 ----	ND	X	X	X	1.0
Arochlor 1254 ----	ND	X	X	X	1.0
Arochlor 1260 ----	ND	X	X	X	1.0

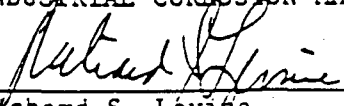
All results are reported in mg/kg(ppm) dry weight basis.

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

DBC SURROGATE RECOVERIES:

Blank: ***
Sample: 108%
Spike: ***
Spike Dup:***

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh
ND=Not Detection
RPD=Relative Percent Difference

PCBEC0125
PCBECW/S150

301733



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 53365

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: 085-254-ESI

SAMPLE DATE: March 13, 1986 TAKEN BY: A. Kvles AT LAB DATE: March 17, 1986

MATRIX: Soil

PCB ANALYSIS
Method 608 by Gas Chromatography with Electron Capture

<u>PARAMETER</u>	<u>RESULT</u>	<u>SPIKE</u>	<u>DUP SPIKE</u>	<u>RPD</u>	<u>DETECTION LIMITS</u>
Arochlor 1016 ----	ND	X	X	X	0.5
Arochlor 1221 ----	ND	X	X	X	0.5
Arochlor 1232 ----	ND	X	X	X	0.5
Arochlor 1242 ----	ND	X	X	X	0.5
Arochlor 1248 ----	ND	X	X	X	0.5
Arochlor 1254 ----	ND	X	X	X	0.5
Arochlor 1260 ----	ND	X	X	X	0.5

All results are reported in mg/kg(ppm) dry weight basis.

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

DBC SURROGATE RECOVERIES:

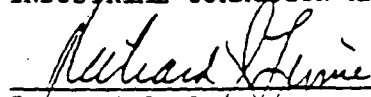
Blank: ***

Sample: 60%

Spike: ***

Spike Dup: ***

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL: dlh

ND=Not Detection

RPD=Relative Percent Difference

PCBEC0125
PCBECW/S150

301734



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 53366

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-554-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: 085-255-TSI

SAMPLE DATE: March 13, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 13, 1986

MATRIX: Soil

PCB ANALYSIS

Method 608 by Gas Chromatography with Electron Capture

<u>PARAMETER</u>	<u>RESULT</u>	<u>SPIKE</u>	<u>DUP SPIKE</u>	<u>RPD</u>	<u>DETECTION LIMITS</u>
Arochlor 1016 ----	ND	X	X	X	0.5
Arochlor 1221 ----	ND	X	X	X	0.5
Arochlor 1232 ----	ND	X	X	X	0.5
Arochlor 1242 ----	ND	X	X	X	0.5
Arochlor 1248 ----	ND	X	X	X	0.5
Arochlor 1254 ----	ND	X	X	X	0.5
Arochlor 1260 ----	ND	X	X	X	0.5

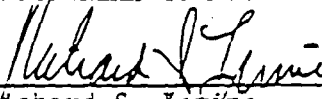
All results are reported in mg/kg(ppm) dry weight basis.

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

DBC SURROGATE RECOVERIES:

Blank: ***
Sample: 70%
Spike: ***
Spike Dup: ***

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL: dlh
ND=Not Detection
RPD=Relative Percent Difference

PCBECO125
PCBECW/S150

301735



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/Wastewater
Laboratory ID# 14116

REPORT DATE: April 16, 1986

LAB # 53367

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-534-0330

CLIENT: ENVIRO SCIENCES - Island Chemical Project

SAMPLE SOURCE: 085-256-ESI

SAMPLE DATE: March 13, 1986 TAKEN BY: A. Kyles AT LAB DATE: March 17, 1986

MATRIX: water

PESTICIDE & PCB ANALYSIS-PRIORITY POLLUTANTS
Suitable for Compliance Testing by Method 608
Gas Chromatography with Electron Capture

PARAMETER	RESULT	SPIKE	DUP SPIKE	RPD	DETECTION LIMITS
Aldrin -----	ND	X	X	X	0.02
a-BHC -----	ND	X	X	X	0.02
b-BHC -----	ND	X	X	X	0.02
d-BHC -----	ND	X	X	X	0.02
g-BHC(Lindane) -----	ND	X	X	X	0.02
Chlordane -----	ND	X	X	X	0.5
p,p'-TDE(DDD) -----	ND	X	X	X	0.2
p,p'-DDE -----	ND	X	X	X	0.04
p,p'-DDT -----	ND	X	X	X	0.2
Dieldrin -----	ND	X	X	X	0.04
Endosulfan 1 -----	ND	X	X	X	0.04
Endosulfan 2 -----	ND	X	X	X	0.04
Endosulfan sulfate -----	ND	X	X	X	0.1
Endrin -----	ND	X	X	X	0.04
Endrin aldehyde -----	ND	X	X	X	0.2
Heptachlor -----	ND	X	X	X	0.02
Heptachlor epoxide -----	ND	X	X	X	0.1
Toxaphene -----	ND	X	X	X	0.5
Arochlor 1016 -----	ND	X	X	X	1.0
Arochlor 1221 -----	ND	X	X	X	1.0
Arochlor 1232 -----	ND	X	X	X	1.0
Arochlor 1242 -----	ND	X	X	X	1.0
Arochlor 1248 -----	ND	X	X	X	1.0
Arochlor 1254 -----	ND	X	X	X	1.0
Arochlor 1260 -----	ND	X	X	X	1.0

All results are reported in ug/l(ppb).

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

DBC SURROGATE RECOVERIES:

Blank:***

Sample: 145%

Spike:***

Spike Dup: ***

RSL:dlh

ND=Not Detected

RPD=Relative Percent Difference

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine/President

301736



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certif: 1 Drinking Water/
Wastewater Laboratory 10 #14116

REPORT DATE: April 24, 1986

LAB # 53367

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-534-0330

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-256-ESI

SAMPLE DATE: -3/13/86 SAMPLED BY: A. Kyles AT LAB DATE: 3/17/86

PRIORITY POLLUTANT VOLATILE ORGANICS + 40
by GC/MS + 15 PEAKS

Parameter	Result	Parameter	Result
acrolein*	ND	1,2-dichloropropane	ND
acrylonitrile*	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
bromoform	ND	methyl bromide	ND
carbon tetrachloride	ND	methyl chloride	ND
chlorobenzene	ND	methylene chloride	ND
chlorodibromomethane	ND	1,1,2,2-tetrachloroethane	ND
chloroethane	ND	tetrachloroethylene	ND
2-chloroethylvinyl ether	ND	toluene	ND
chloroform	ND	1,2-trans-dichloroethylene	ND
dichlorobromomethane	ND	1,1,1-trichloroethane	ND
1,1-dichloroethane	ND	1,1,2-trichloroethane	ND
1,2-dichloroethane	ND	trichloroethylene	ND
1,1-dichloroethylene	ND	vinyl chloride	ND

Detection limit 10 ug/l(ppb).

*Detection Limit 1000 ug/l(ppb).

LT=Less than

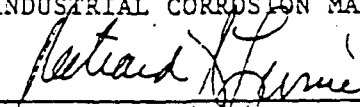
ND=Not Detected

OTHER COMPOUNDS DETECTED
APPROXIMATE CONCENTRATIONS

SURROGATE RECOVERIES

1,2-dichloroethane d4	- 104%	95%(spike)	98%(spike duplicate)
d8 toluene	- 99%	99%(spike)	98%(spike duplicate)
BFB	- 96%	103%(spike)	93%(spike duplicate)

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL:dlh

301737

ICM INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID #14116

REPORT DATE: April 24, 1986

LAB # 53367

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-256-ESI

SAMPLE DATE: March 13, 1986 SAMPLED BY: A. Kyles AT LAB DATE: March 17, 1986

ACID EXTRACTABLES
PRIORITY POLLUTANTS + 40
by GC/MS + 10 PEAKS

ACID EXTRACTABLES PRIORITY POLLUTANTS + 10 Peaks

2-chlorophenol	100
2-nitrophenol	100
phenol	100
2,4,-dimethylphenol	100
2,4,-dichlorophenol	100
pentachlorophenol	500
2,4-dinitrophenol	500
4,6-dinitro-o-cresol	500
4-nitrophenol	500
2,4,6-trichlorophenol	100
4-chloro-3 methyl phenol	100

SURROGATE RECOVERIES

2-Fluorophenol	52.1%
Phenol-d5	21.0%
2,4,6-Tribromophenol	67.9%

OTHER COMPOUNDS DETECTED APPROXIMATE CONCENTRATIONS

Unknown Hydrocarbon Peak	5.8

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

301738

RSL:dlh



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

NJDEP Certified Drinking Water/
Wastewater Laboratory ID #14116

REPORT DATE: April 24, 1986

LAB # 53367

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

CLIENT: ENVIRO SCIENCES INC. - Island Chemical Project

SAMPLE SOURCE: 085-256-EST

SAMPLE DATE: 3/13/86 SAMPLED BY: A. Kyles AT LAB DATE: 3/17/86

BASE/NEUTRAL EXTRACTABLES PRIORITY POLLUTANTS + 40
by GC/MS + 15 PEAKS

Parameter	Result	Parameter	Result
acenaphthene	10U	diethyl phthalate	10U
acenaphthylene	10U	dimethyl phthalate	10U
anthracene	10U	di-n-butyl phthalate	10U
benzidine	40U	2,4-dinitrotoluene	50U
benzo(a)anthracene	10U	2,6-dinitrotoluene	10U
benzo(a)pyrene	10U	di-n-octyl phthalate	2.4J
3,4-benzofluoranthene	10U	1,2-diphenylhydrazine(as azobenzene)	50U
benzo(ghi)perylene	10U	fluoranthene	10U
benzo(k)fluoranthene	10U	fluorene	10U
bis(2-chloroethoxy)methane	10U	hexachlorobenzene	10U
bis(2-chloroethyl)ether	10U	hexachlorobutadiene	10U
bis(2-chloroisopropyl)ether	10U	hexachlorocyclopentadiene	10U
bis(2-ethylhexyl)phthalate	10U	hexachloroethane	10U
4-bromophenyl phenyl ether	10U	indeno(1,2,3-cd)pyrene	10U
butylbenzyl phthalate	10U	isophorone	10U
2-chloronaphthalene	10U	naphthalene	10U
4-chlorophenyl phenyl ether	10U	nitrobenzene	10U
chrysene	10U	N-nitrosodimethylamine	10U
dibenzo(a,h)anthracene	10U	N-nitrosodi-n-propylamine	10U
1,2-dichlorobenzene	10U	N-nitrosodiphenylamine	10U
1,3-dichlorobenzene	10U	phenanthrene	10U
1,4-dichlorobenzene	10U	pyrene	10U
3,3-dichlorobenzidine	20U	1,2,4-trichlorobenzene	10U

SURROGATES

d5-Nitrobenzene - 6.3%
2-Fluorobiphenyl - 59.7%
4-Terphenyl-d14 - 91.8%

LT=Less Than
ND=Not Detected

APPROXIMATE CONCENTRATION
OTHER COMPOUNDS DETECTED

INDUSTRIAL CORROSION MANAGEMENT, INC.

Richard S. Levine
Richard S. Levine
President

RSL:dlh

301739

**CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-3330

NJDEP Certified Drinking Water/Wastewater
Laboratory ID 14116

REPORT DATE: May 2, 1986

LAB # 53367

PRIORITY POLLUTANT
LABORATORY ANALYSIS

CLIENT: ENVIRO SCIENCES

SAMPLE DATE: March 13, 1986

SAMPLE SOURCE: Island Chemical

SAMPLED BY: Al Kyvas

SAMPLE ID: 085-256-ESI

AT LAB DATE: March 17, 1986

UNITS: mg/l(ppm)

MATRIX: water

(This report form contains both the original sample result and the duplicate result.)

Parameter	Sample Result	Sample Duplicate	RPD	Control Limits	Minimum Detection Limit	Method Blank Analysis
Arsimony	LT 0.050	LT 0.050	NC	NC	LT 0.050	LT 0.050
Arsenic	0.007	0.005	17%	±75%	LT 0.002	LT 0.002
Beryllium	LT 0.001	LT 0.001	NC	NC	LT 0.001	LT 0.001
Cadmium	LT 0.001	LT 0.001	NC	NC	LT 0.001	LT 0.001
Chromium	0.002	0.002	NC	NC	LT 0.001	LT 0.001
Copper	0.007	0.007	NC	NC	LT 0.001	LT 0.001
Lead	0.005	0.005	NC	NC	LT 0.002	LT 0.002
Mercury	0.0005	0.0007	17%	±55%	LT 0.0005	LT 0.0005
Nickel	LT 0.006	LT 0.006	NC	NC	LT 0.006	LT 0.006
Selenium	0.019	0.029	42%	±93%	LT 0.005	LT 0.005
Silver	0.004	0.004	NC	NC	LT 0.001	LT 0.001
Thallium	LT 0.014	LT 0.014	NC	NC	LT 0.014	LT 0.014
Zinc	0.022	0.027	20%	±20%	LT 0.001	LT 0.001
Phenol	LT 0.005	X	X	X	LT 0.005	LT 0.005
Cyanide	0.007	0.008	13%	±20%	LT 0.007	LT 0.007

NC = Non-calculable RPD due to value(s) less than detection limit.

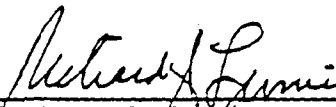
dwb = Dry Weight Basis

X = Not Analyzed

LT = Less Than

RPD = Relative percent difference.

INDUSTRIAL CORROSION MANAGEMENT, INC.


Richard S. Levine
President

RSL/dlh

301740

JINC SCIENCES INC.

366-6256

Send Report To: Alan L. Kyles

Installation: Iscano Circumloc Co. (ICC)

Sampler(s)	
Name:	Signature:

Sampling Series: EPA SPLITS

Adam L. Keller	William L. Keller

[illegible]

Relinquished By: (Sign.)	Received By: (Sign.)	Date/Time

Relinquished By: (Sign.)	Received By: (Sign.)	Date/Time
	Quinta Bensonette	12/17/36 12:10

Relinquished To Laboratory By: (Sign.)	Received For Laboratory By: (Sign.)	Date/Time

Method Of Relinquishment:	Name Of Laboratory:

<u>ANALYSIS REQUIRED</u>	<u>CODE</u>	<u>ANALYSIS</u>	<u>CODE</u>	<u>ANALYSIS</u>	<u>CODE</u>	<u>ANALYSIS</u>	<u>CODE</u>
(put code in proper column)							
Priority pollutant+40:	01	Nickel:	06	Zinc:	13	TSS:	20
Petroleum hydrocarbons:	02	Chromium:	07	Cadmium:	14	TDS:	21
Volatile organics (GC):	03	Arsenic:	08	Selenium:	15	pH:	22
Volatile organics (GC/MS):	04	Copper:	09	Silver:	16	PCB:	23
Cyanides:	05	Lead:	10	Barium:	17	Other:	24
		Mercury:	11	COD:	18	(Specify)	
		Antimony:	12	BOD:	19		

Table 2 - Results of Organic Analysis- Organic Compounds Detected

Compound name		Sample location/Sample #					
VOA		Gut Back-ground* #085251	Lab waste pit seep #085252	Drainage pit disch. #085253	Lab waste pit # 1 #085254	Lab waste pit # 2 #085255	On-site well (ug/l) #085256
Xylene				470			
Chloroform							130

NVOA							
Butyl benzyl phthalate		1000					2K
Di-n-octyl phthalate		17000	9000	7700	4900	3200	3.9
1,4 dichlorobenzene				870			
1,2 dichlorobenzene				2900			
Napthalene				2100			
Flourene				2000			
Phenanthrene				2400			
Bis(2-ethylhexyl)phthalate							280
Aliphatic & aromatic hydrocarbons				M			

PCB							
PCB-1016	301742	1000K	1000K	1000K	1000K	1000K	1K
PCB-1221		1000K	1000K	1000K	1000K	1000K	1K
PCB-1232		1000K	1000K	1000K	1000K	1000K	1K
PCB-1242		1000K	1000K	1000K	1000K	1000K	1K
PCB-1248		1000K	1000K	1000K	1000K	1000K	1K
PCB-1254		1000K	1000K	1000K	1000K	1000K	1K
PCB-1260		1000K	1000K	1000K	1000K	1000K	1K

*All values in ug/kg except where otherwise stated.
K = Actual value known to be less than value given.
M = Presence of material verified but not quantified.
Blank space means compound was not detected in sample analysis.

Table 3 - Results of Metals Scan Analysis

Compound name	Sample location/Sample #					
	Gut Back-ground* #085251	Lab waste pit seep #085252	Drainage pit disch. #085253	Lab waste pit # 1 #085254	Lab waste pit # 2 #085255	On-site well (ug/l) #085256
Silver						
Arsenic	2J	1J	0.8J	0.8J	2J	2J
Beryllium		7J	8J	7J	7J	5J
Cadmium						3J
Chromium	10	22	52	27	26	7J
Copper	40	45	52	55	58	8J
Mercury						0.6J
Lead			30J			
Nickel	19	20J	32	25	27	
Antimony		10		8.4		3J
Selenium	1J		1J	0.8J	0.8J	
Thallium						
Zinc	100	63	360	80	79	20J

*All values in mg/kg except where otherwise stated.

J = Estimated value.

M = Presence of material verified but not quantified.

Blank space means compound was not detected in sample analysis.

SITE INSPECTION SAMPLING RESULTS (cont'd)

SITE NAME: VI CHEMICAL
ID#: 02-9101-04
SAMPLING DATE: 2/28/91
EPA CASE NO.: 15933 LAB. CCMPUCHEN

VOLATILES

Sample ID No.	VI25-R1N2	VI25-TB1N1
Traffic Report No.	BGL19	BGL22
Matrix	WATER	WATER
Units	ug/L	ug/L
Dilution Factor	1	1
Percent Moisture	--	--
Chloroethane		
Bromoethane		
Vinyl Chloride		
Chloroethane		
Methylene Chloride	B	B
Acetone		
Carbon Disulfide		
1,1-Dichloroethene		
1,1-Dichloroethane		
trans-1,2-Dichloroethene (Total)		
Chloroform		
1,2-Dichloroethane		
2-Butanone		
1,1,1-Trichloroethane	J	
Carbon Tetrachloride		
Vinyl Acetate		
Bromodichloroethane		
1,2-Dichloropropane		
cis-1,3-Dichloropropene		
Trichloroethene		
Dibromochloroethane		
1,1,2-Trichloroethane		
Benzene		
trans-1,3-Dichloropropene		
Bromoform		
1-Methyl-2-Pentanone		
2-Hexanone		
Tetrachloroethene		
Toluene		
1,1,2,2-Tetrachloroethane		
Chlorobenzene		
Ethylbenzene		
Styrene		
Xylenes (Total)		

NOTES

Blank space - compound analyzed for but not detected
B - compound found in at least one of the samples, indicates possible presence of blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above 10L
N - analysis did not pass EPA QA/QC
M - presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor > 1 and/or percent moisture > 0L

301745

Rev. No. C

SITE INSPECTION. SAMPLING RESULTS (cont'd)

Site Location: 128-51
ID#: 0
SAMPLING L: 128-51
EPA CASE NO.: 15922 L-46: COMMERCE

SEMI-VOLATILES

Sample ID No.	V125-GW1	V125-GW2	V125-GW3	V125-GW4	V125-GW5	V125-GW6	V125-SED1	V125-SED2	V125-SED3	V125-SED4	V125-SED5	V125-SED6	V125-S1(HS)	V125-S2	V125-S3	V125-S6	V125-R1W1
Traffic Report No.	RCLG1	BGL02	BGL03	BGL04	BGL05	BGL06	BGL09	BGL10	BGL11	BGL12	BGL17	BGL16	BGL13	BGL14	BGL15	BGL23	BGL18
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SOIL	SOIL	SOIL	SOIL	WATER
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/L
Dilution Factor/GPC (Cleaning)	1	1	1	1	1	1	27	33	43	34	19	42	16	16	18	9	--
Percent Moisture	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Phenol	NR								R			R			R		R
bis(2-Chloroethyl)ether	NR								R			R			R		R
2-Chlorophenol	NR								R			R			R		R
1,3-Dichlorobenzene	NR								R			R			R		R
1,4-Dichlorobenzene	NR								R			R			R		R
Benzyl alcohol	NR								R			R			R		R
1,2-Dichlorobenzene	NR								P			R			R		R
2-Methylphenol	NR								R			R			R		R
bis(2-Chloroisopropyl)ether	NR								R			R			R		R
4-Methylphenol	NR								R			R			R		R
N-Nitroso-di-n-propylamine	NR						R	R	R	R		R	R		R	P	
Hexachloroethane	NR								R			R			R		R
Nitrobenzene	NR								R			R			R		R
Isophorone	NR								R			R			R		R
2-Nitrophenol	NR								R			R			R		R
2,4-Dimethylphenol	NR								R			R			R		R
Benzoic acid	NR								R			R			R		R
bis(2-Chloroethoxy)methane	NR								R			R			R		R
2,4-Dichlorophenol	NR								R			R			R		R
1,2,4-Trichlorobenzene	NR								R			R			R		R
Naphthalene	NR								P		J	R			R		R
4-Chloroaniline	NR								R			P	R		R		R
Hexachlorobutadiene	NR								R			R			R		R
4-Chloro-3-Methylphenol	NR								R			R			R		R
2-Methylnaphthalene	NR								R			630 E	R		R		R
Hexachlorocyclopentadiene	NR								R			R			R		R
2,4,6-Trichlorophenol	NR								R			R			R		R
2,4,5-Trichlorophenol	NR								R			R			R		R
2-Chloronaphthalene	NR								R			R			R		R
2-Nitroaniline	NR								R			R			R		R
Dimethylphthalate	NR								R			R			R		R
Acenaphthylene	NR								R		J	R			R		R
2,6-Dinitrotoluene	NR								R			R			R		R
3-Nitroaniline	NR								R			R			R		R
Acenaphthene	NR								R			R			R		R
2,4-Dinitrophenol	NR								R			R			R		R
4-Nitrophenol	NR								R			R			R		R
Dibenzofuran	NR								R			R			R		R
2,4-Dinitrotoluene	NR								R			R			R		R
Diethylphthalate	NR								R			R			R		R
4-Chlorophenyl-phenyl ether	NR								R			R			R		R
Fluorene	NR								R		J	R			R		R
4-Nitroaniline	NR								P			R			R		R
4,6-Dinitro-2-methylphenol	NR								R			R			R		R
N-nitrosodiphenylamine	NR								R			R			R		R
4-Bromophenyl-phenyl ether	NR								R			R			R		R
Hexachlorobenzene	NR								R			R			R		R

301746

SITE NAME: V. 17A

TODD: 02-91C1-04

SAMPLING DATE: 2/28/91

EPA CASE NO.: 15732 USE: COMMERCE

TAB SITE INSPECTION ANALYTICAL RESULTS (cont'd)

SEMI-VOLATILES

Sample ID No.	V125-GW1MS/V125-GW2	V125-GW3/DOU/V125-GW4	V125-GW5	V125-GW6	V125-SED1	V125-SED2	V125-SED3	V125-SED4(DV125-SED5	V125-SED6	V125-S1(MS/	V125-S2	V125-S3	V125-S6	V125-RIN1		
Traffic Report No.	BGL02	BGL03	BGL04	BGL05	BGL06	BGL09	BGL10	BGL11	BGL12	BGL17	BGL16	BGL13	BGL14	BGL15	BGL23	BGL18
Matrix	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SOIL	SOIL	SOIL	SOIL	WATER
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/L
Dilution Factor/GPC Cleanup	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1
Percent Moisture	--	--	--	--	--	27	33	43	34	19	42	16	16	18	9	--

Pentachlorophenol				NR				R		R	R		R	J
Phenanthrene				NR				R		J	R		R	R
Anthracene				NR				R		R	R		R	R
Di-n-butylphthalate				NR				R		J	R		R	R
Fluoranthene				NR	10 E			R		J	R		R	R
Pyrene				NR				R		J	J		R	R
Nutylbenzylphthalate	J		J	NR				R		J	R		R	R
3,3'-Dichlorobenzidire				NR				R		R	R		R	R
Benzo(a)anthracene				NR				R		R	R		R	R
Chrysene				NR				R		R	R		R	R
bis(2-Ethylhexyl)phthalate		J		NR	J			R		22CO E	R		R	R
Di-n-octylphthalate				NR				R		R	R		R	R
Benzo(b)fluoranthene				NR				R		R	R		R	R
Benzo(k)fluoranthene				NR				R		R	R		R	R
Benzo(a)pyrene				NR				R		R	R		R	R
Indeno(1,2,3-cd)pyrene				NR				R		R	R		R	R
Dibenzo(a,h)anthracene				NR				P		R	R		R	R
Benzo(g,h,i)perylene				NR				R		R	R		R	R

NOTES:

Blank space - compound analyzed for but not detected

B - compound found in lab blank as well as sample, indicates possible/unreliable blank contamination

E - estimated value

J - estimated value, compound present below CRO1 but above LML

R - analysis did not pass EPA QC

N - Presumptive evidence of the presence of the material

NR - analysis not required

Detection limits elevated if dilution factor 1 and/or percent moisture 0

301747

SITE NAME: WYOMING
 TUBE: C-4
 SAMPLING DATE: 2/27/71
 EPA CASE NO.: 15032-1-01: 13000 WY

SITE INSPECTION SAMPLING RESULTS (cont'd)

SEMI-VOLATILES

Sample ID No.	WIS-FIND	WIS-16111
Traffic Report No.	BGL 2	BGL 22
Matrix	WATER	WATER
Units	ug/l	ug/l
Dilution Factor/SPE Filter (ug/l)		N/A
Percent Moisture	--	4/A
Phenol		NR
bis(2-Chloroethyl) ether		NR
2-Chlorophenol		NR
1,3-Dichlorobenzene		NR
1,4-Dichlorobenzene		NR
Benzyl alcohol		NR
1,2-Dichlorobenzene		NR
2-Methylphenol		NR
bis(2-Chloroisopropyl) ether		NR
4-Methylphenol		NR
N-Nitroso-di-n-propylamine		NR
Hexachloroethane		NR
Nitrobenzene		NR
Isophorone		NR
2-Nitrophenol		NR
2,4-Dimethylphenol		NR
Benzoic acid		NR
bis(2-Chloroethoxy) ether		NR
2,4-Dichlorophenol		NR
1,2,4-Trichlorobenzene		NR
Naphthalene		NR
4-Chloroaniline		NR
Hexachlorobutadiene		NR
4-Chloro-3-Methylphenol		NR
2-Methylnaphthalene		NR
Hexachlorocyclopentadiene		NR
2,4,6-Trichlorophenol		NR
2,4,5-Trichlorophenol		NR
2-Chloronaphthalene		NR
2-Nitroaniline		NR
Dimethylphthalate		NR
Acenaphthylene		NR
2,6-Dinitrotoluene		NR
3-Nitroaniline		NR
Acenaphthene		NR
2,4-Dinitrophenol		NR
4-Nitrophenol		NR
Dibenzofuran		NR
2,4-Dinitrotoluene		NR
Diethylphthalate		NR
4-Chlorophenyl-phenyl ether		NR
fluorene		NR
4-Nitroaniline		NR
4,6-Dinitro-2-methylphenol		NR
N-nitrosodiphenylamine		NR
4-Bromophenyl-phenyl ether		NR
Hexachlorobenzene		NR

301748

SITE: VI CHEMICAL
 T000: 1-04
 SAMPLING DATE: 2/28/91
 EPA CASE NO.: 15933 LAB: CONPUCHEN

SITE INSPECTION & ANALYSIS RESULTS
 (cont'd)

PESTICIDES	VI25-RIN2	VI25-T6LN1
Sample ID No.	BGL19	BGL22
Traffic Report No.	WATER	WATER
Matrix	ug/L	ug/L
Units	1	N/A
Dilution Factor/GPC Cleanup (Y)	--	N/A
Percent Moisture		
alpha-BHC		NR
beta-BHC		NR
delta-BHC		NR
gamma-BHC (Lindane)		NR
Heptachlor		NR
Aldrin		NR
Heptachlor epoxide		NR
Endosulfan I		NR
Dieldrin		NR
4,4'-DDE		NR
Endrin		NR
Endosulfan II		NR
4,4'-DDD		NR
Endosulfan sulfate		NR
4,4'-DDT		NR
Methoxychlor		NR
Endrin ketone		NR
alpha-Chlordane		NR
gamma-Chlordane		NR
Toxaphene		NR
Aroclor-1016		NR
Aroclor-1221		NR
Aroclor-1232		NR
Aroclor-1242		NR
Aroclor-1248		NR
Aroclor-1254		NR
Aroclor-1260		NR

NOTES:

- Blank space - compound analyzed for but not detected
 - B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
 - E - estimated value
 - J - estimated value, compound present below CRQL but above TDL
 - N - analysis did not pass EPA QA/QC
 - N - Presumptive evidence of the presence of the material
 - NR - analysis not required
- Detection limits elevated if Dilution Factor > 1 and/or percent moisture > 0%

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TABLE

SITE INSPECTION SAMPLING RESULTS (cont'd)

TD00: 02
SAMPLING DATE: 1/28/91
EPA CASE NO.: 15933
LAB NAME: SKINNER

INORGANICS

Sample ID No. Traffic Report No. Matrix Units Dilution Factor	V125-GW1(MS/MSD) MBFA01 WATER ug/L	V125-GW2 MBFA02 WATER ug/L	V125-GW3(DUP) MBFA03 WATER ug/L	V125-GW4 MBFA04 WATER ug/L	V125-GW5 MBFA05 WATER ug/L	V125-GW6 MBFA06 WATER ug/L	V125-SED1 MBFA09 SEDIMENT mg/kg	V125-SED2 MBFA10 SEDIMENT mg/kg	V125-SED3 MBFA11 SEDIMENT mg/kg	V125-SED4(DUP) MBFA12 SEDIMENT mg/kg	V125-SED5 MBFA17 SEDIMENT mg/kg	V125-SED6 MBFA18 SEDIMENT mg/kg	V125-S1(MS/MSD) MBFA13 SOIL mg/kg	V125-S2 MBFA14 SOIL mg/kg	V125-S3 MBFA15 SOIL mg/kg
Aluminum	J	J	J	J	J	J	15700	32400	30400	33600	9400	10600	13600	21700	21000
Antimony	J	J	J	J	J	J	J	J	J	J	28.8 E	J	J	J	J
Arsenic	J	J	J	J	J	J	J	3.2 E	4.1 E	3.8 E	8 E	5.5 E	J	7.8 E	9.1 E
Barium	J	J	J	J	J	J	90.3	115	111	122	48.8	95.8	108	136	198
Beryllium	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
Cadmium	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
Calcium	69800	63300	74300	127000	81000	75800	45800	74900	79900	82100	51200	42100	49300	23300	43100
Chromium	J	J	J	J	J	J	18.7 E	18.3 E	17.8 E	18.8 E	57.8 E	110 E	19.8 E	27.9 E	49 E
Cobalt	J	J	J	J	J	J	14.7	23.7	24.8	25.4	13.8	17.3	13.4	21.1	22.3
Copper	J	J	J	J	J	J	48.4	80.5	82	64.9	387	109	58.7	99.8	73.7
Iron	121 E	J	J	J	J	J	25700	35800	39200	38400	183000	121000	21500	44100	81700
Lead	0.03.1	0.04	0.04.2	0.03.9	0.03.7	0.03.9	15.1	7.5	7.5	7.8	488	187	9	36.3	322
Magnesium	47500	48800	50500	71800	40700	58800	7880	10900	11800	11800	4740	5000	7830	7800	7420
Manganese	J	.383	.400	<17.7	J	J	954	1320	1400	1430	925	1420	735	1050	987
Mercury	0.02 E	J	0.03.3 E	J	0.01.2 E	0.00.72 E	J	J	J	J	J	J	J	J	J
Nickel	J	J	J	J	J	J	10.8 E	13.8 E	14.8 E	15.2 E	47.8 E	49.8 E	10.7 E	18.8 E	33.8 E
Potassium	J	J	J	J	J	J	J	1490	J	1800	J	J	2170	2930	2920
Selenium	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
Silver	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
Sodium	548000 E	383000 E	374000 E	590600 E	572000 E	237000 E	J	1840 E	J	1750 E	J	J	J	J	J
Thallium	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
Vanadium	J	J	J	J	0.50.3 E	J	82.4	82.1	83.2	84.8	J	J	14.7	97.2	83.5
Zinc	J	J	0.21.8	J	J	0.00.9	53.9 E	73.5 E	82.3 E	79.9 E	1500 E	1710 E	142 E	387 E	382 E

NOTES:

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

301750

08/28/91

02-9101-04-SI
Rev. No. 0

SITE NAME: VI CHEMICAL
 ID#: 02-9101-04
 SAMPLING DATE: 2/23/91
 EPA CASE NO.: 15923 FILE: CHEMICAL

TABLE 1
 SITE INSPECTION SAMPLING RESULTS
 (cont'd)

SEMI-VOLATILES	
Sample ID No.	VI25-181-1
Traffic Report No.	BGL12 BGL22
Matrix	WATER WATER
Units	ug/L ug/L
Dilution Factor/4FC Cleanup FY	1 N/A
Percent Moisture	-- N/A
Pentachlorophenol	NR
Phenanthrene	NR
Anthracene	NR
Di-n-butylphthalate	NR
Fluoranthene	NR
Pyrene	NR
Butylbenzylphthalate	NR
3,3'-Dichlorobenzidine	NR
Benz(a)anthracene	NR
Chrysene	NR
bis(2-ethylhexyl)phthalate	NR
Di-n-octylphthalate	NR
Benz(b)fluoranthene	NR
Benz(k)fluoranthene	NR
Benz(a)pyrene	NR
Indeno(1,2,3-cd)pyrene	NR
Dibenz(a,h)anthracene	NR
Benz(g,h,i)perylene	NR

NOTES:

Blank space - compound analyzed for but not detected
 B - compound found in lab blank as well as sample, indicates possible/possible blank contamination
 E - estimated value
 J - estimated value, compound present below CRQL but above TEL
 R - analysis did not pass EPA QA/QC
 N - Presumptive evidence of the presence of the material
 NR - analysis not required
 Detection limits elevated if dilution factor >1 and/or percent moisture >0

301751

SITE NAME: V1 CHEMICAL
 TDD#: 02-9101-04
 SAMPLING DATE: 2/28/91
 EPA CASE NO.: 15933
 LAB NAME: SKINNER

TABLE 1
 SITE INSPECTION SAMPLING RESULTS
 (cont'd)

INORGANICS				
Sample ID No.	V125-S6	V125-R1M1	V125-R1M2	V125-TBLK1
Traffic Report No.	MBFA22	MBFA18	MBFA19	N/A
Matrix	SOIL	WATER	WATER	N/A
Units	mg/kg	ug/L	ug/L	ug/L
Dilution Factor				
Aluminum	19200	J	J	NR
Antimony				NR
Arsenic	J			NR
Barium	113			NR
Beryllium				NR
Cadmium				NR
Calcium	18000	J	J	NR
Chromium	20 E			NR
Cobalt	19.5			NR
Copper	43.7		J	NR
Iron	25300	0.223 E	J	NR
Lead	9.9	0.03.0	J	NR
Magnesium	5150	J	J	NR
Manganese	1070	J		NR
Mercury			0.28 E	NR
Nickel	10.3 E			NR
Potassium	2500	J	J	NR
Selenium				NR
Silver				NR
Sodium	J	J	J	NR
Thallium				NR
Tenadium	84.9			NR
Zinc	44.3 E		J	NR

NOTES:

Blank space - compound analyzed for but not detected

E - estimated value

J - estimated value, compound present below CRDL but above TOL

R - analysis did not pass EPA QA'OC

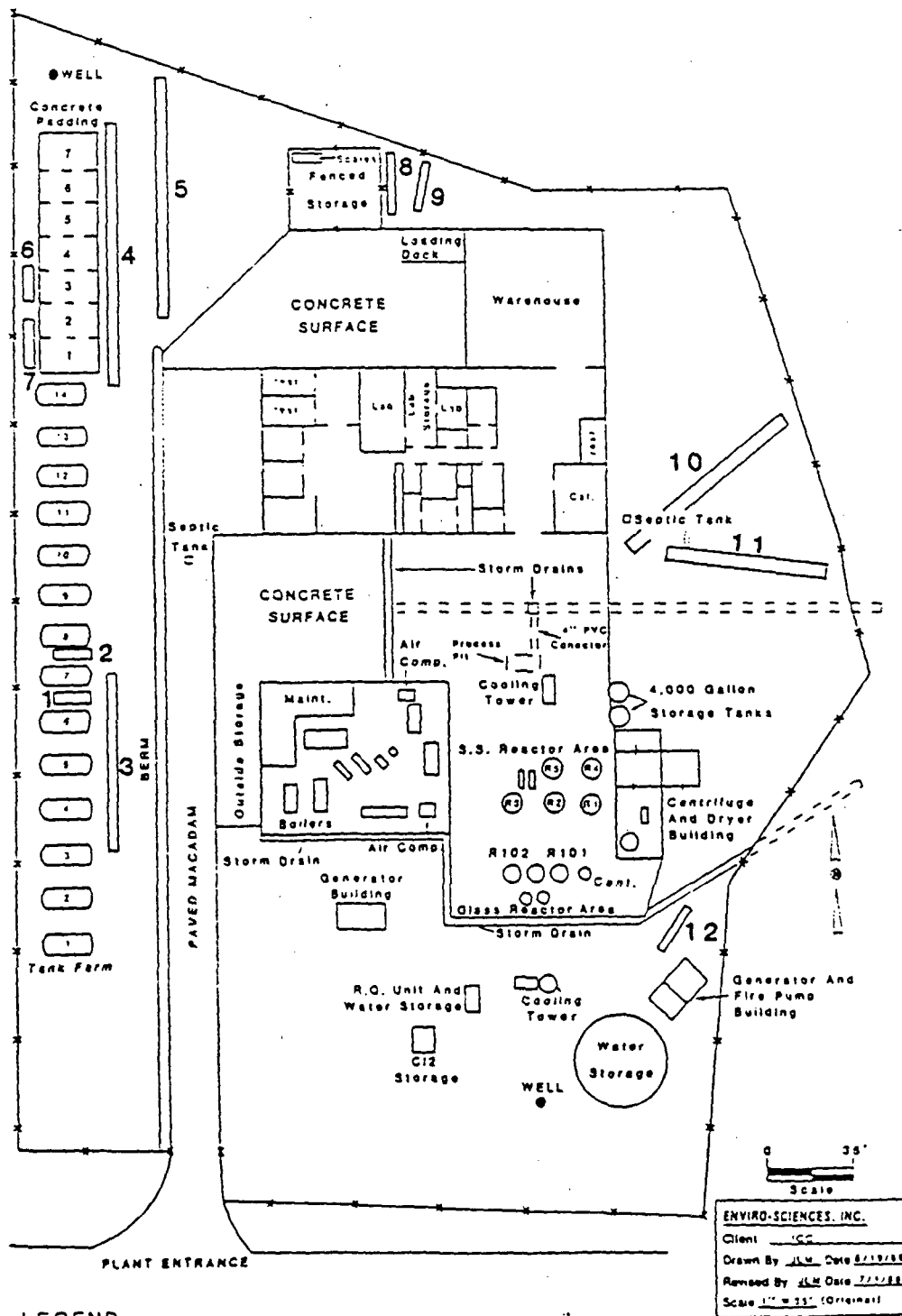
NR - analysis not required

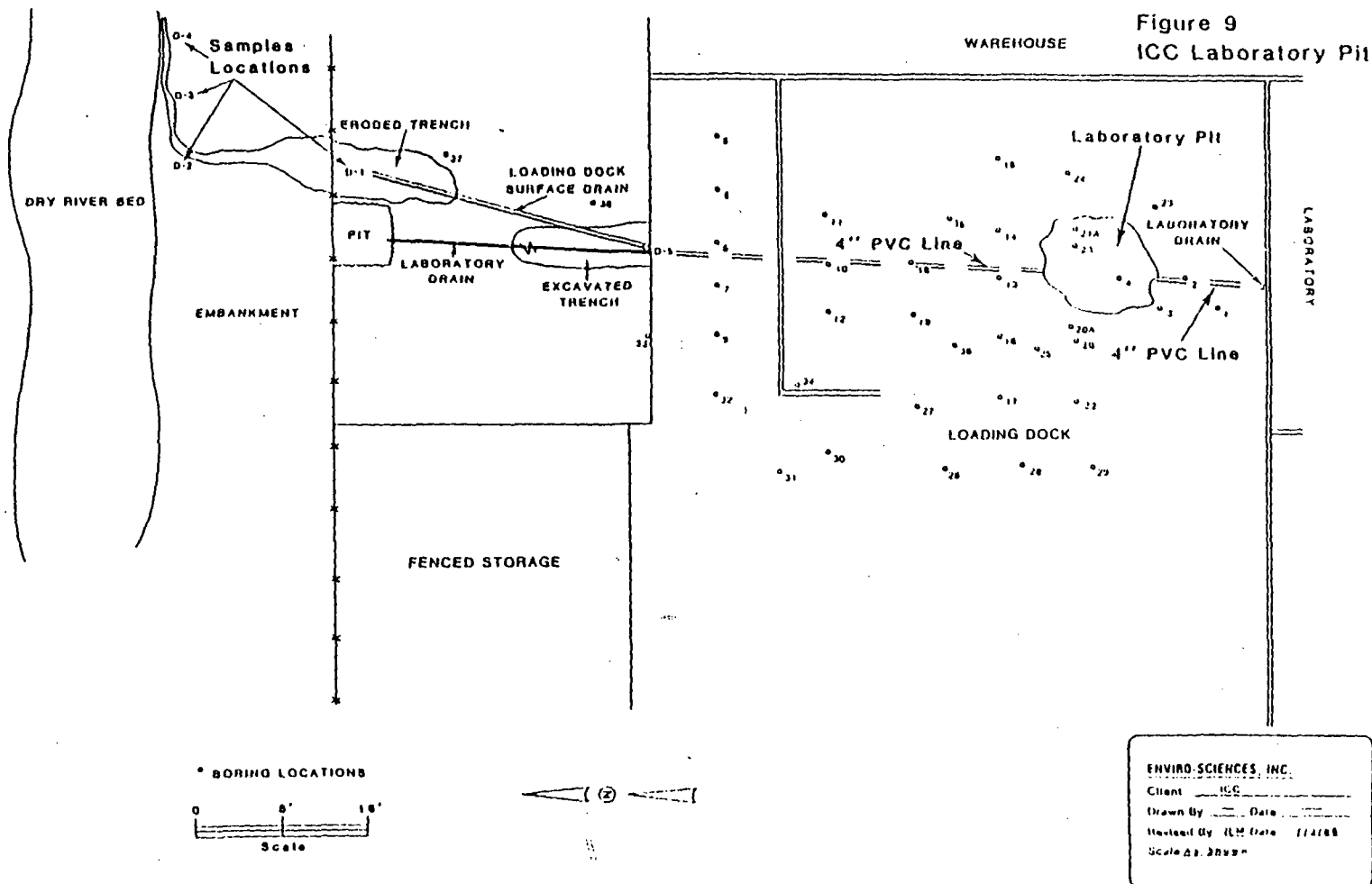
301752

Appendix N
Figures Showing Previous Sampling Locations

Figure 10

ICC Plot Plan: Trenches



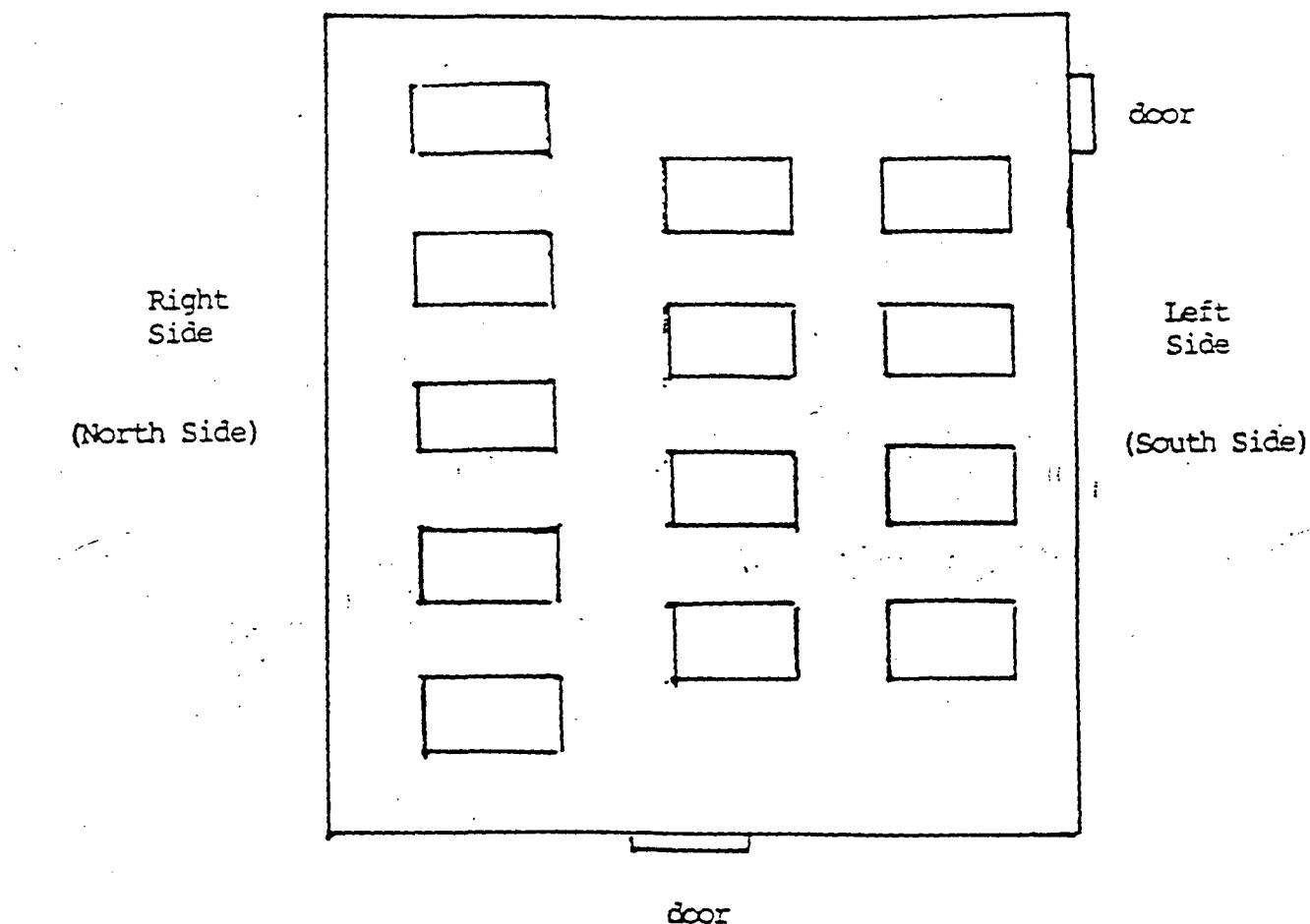


301755

DRYING OVEN

- toluene contaminated soil

(Top View)



Composite soil sample from drying oven

- #087001 - left side (south side)
- #087002 - right side (north side)

(Not to Scale)

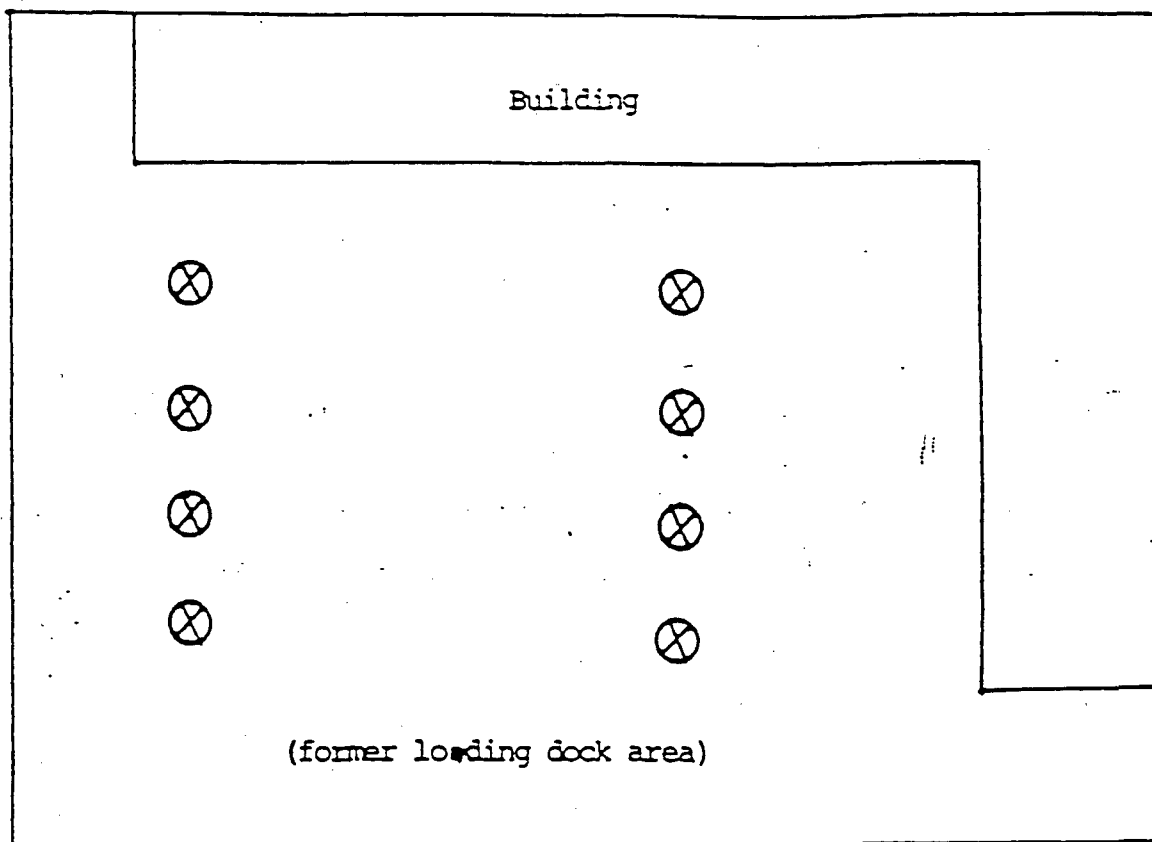
* Each rectangle represents one bin containing a stack of twenty trays.

301756

Figure 4 - Sample Location Map - Drying Oven

LAB WASTE DRAINAGE AREA

- pyridine contaminated soil



⊗ - Sample locations for composite

NORTH

Soil sample from north side of the Lab Waste Drainage Area

° Surface - #087003

° Subsurface - #087004

Soil sample from south side of the Lab Waste Drainage Area

° Surface - #087005

° Subsurface - #087006

(Not to Scale)

Figure 5 - Sample Location Map - Lab Waste Drainage Area

301757



GW6
VIPA #1

GW5
VIPA #1

LEGEND

- SEPTIC TANK
- //// STORM DRAINS
- /// VEGETATION
- ⊕ GROUNDWATER SAMPLE
- SEDIMENT SAMPLE
- SOIL SAMPLE

FAIRPLAINS #0
GW4

SAMPLE LOCATION MAP

VI CHEMICAL, ST. CROIX, U.S.V.I.

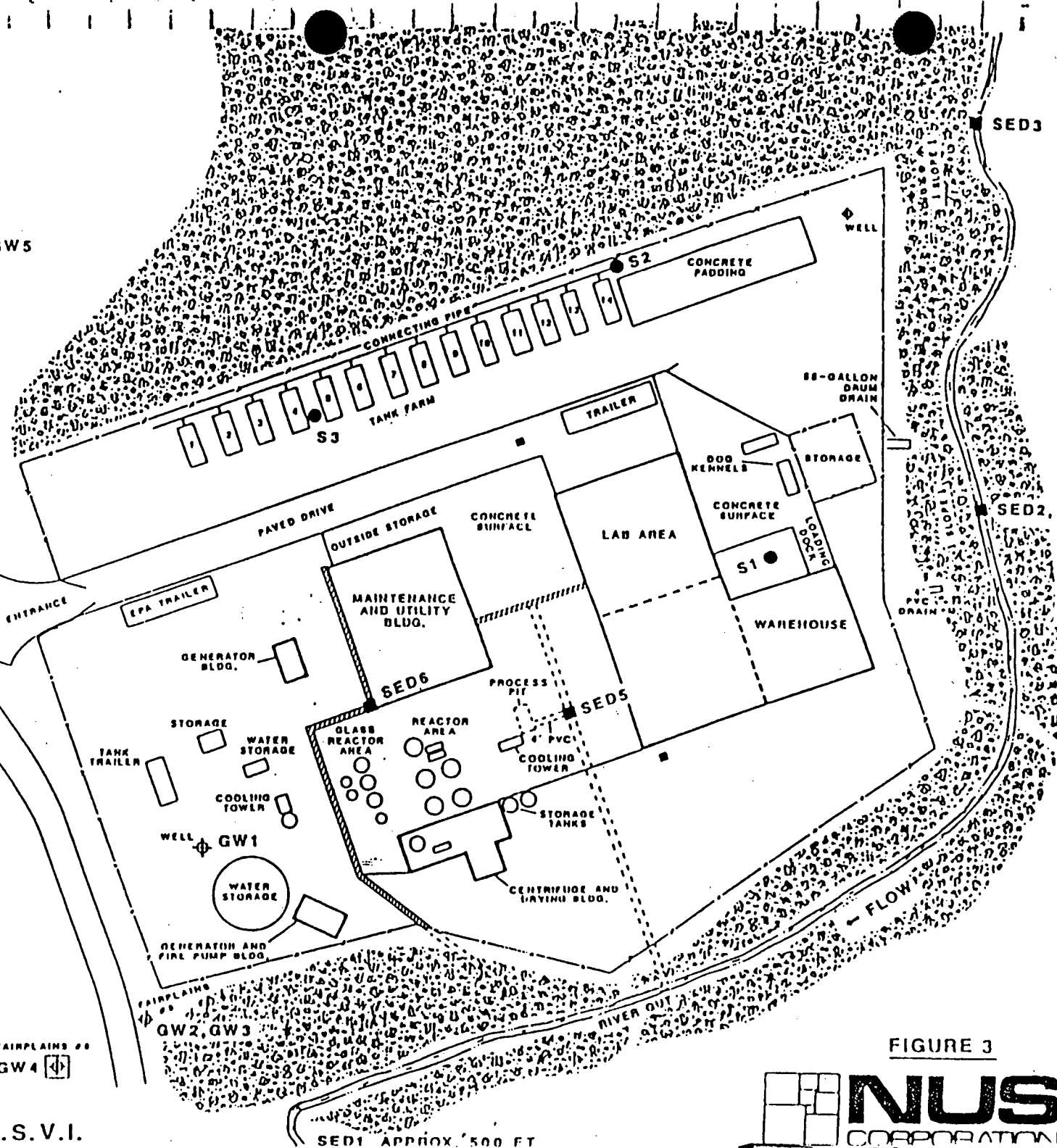


FIGURE 3



301759

Appendix O
Compendium of Groundwater Data

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

SKP

OCT 18 1990

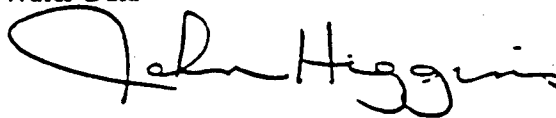
DATE:

SUBJECT:

Virgin Island Chemical Co. (VIChem) - Well Water Data

FROM:

John Higgins, P.E., On-Scene Coordinator
Response & Prevention Branch



TO:

Sherrel Henry, Remedial Project Manager
Eastern New York/Caribbean Remedial Action Branch

Please find attached the, "Compendium of Well Water Data Collected at the Virgin Island Chemical Co. by the USEPA (1986-1990)." Thank you for reviewing the draft version. As we agreed, I am sending this report to Ms. Yvette Canegatta of the Virgin Island Department of Natural Resources. This report will also be appended to the VIChem OSC Report.

I can be contacted at (FTS) 340-6194, should you have any questions regarding the removal action at VIChem.

Attachment

cc: Yvette Canegatta, VIDPNR

301761

COMPENDIUM OF WELL WATER DATA
COLLECTED AT THE VIRGIN ISLAND CHEMICAL CO. BY THE USEPA
(1986-1990)

FOREWORD

The purpose of this report is to summarize pertinent sampling data and information regarding the volatile organic, well water data collected by the United States Environmental Protection Agency (EPA) during various sampling events at, and in the vicinity of the Virgin Island Chemical Co. (VIChem) Hazardous Waste Site in St. Croix during and prior to the 1990 Superfund Removal Action. Summary reports of each of these sampling events are included in the VIChem Removal Action Site Files.

A review of the data indicates that Chloroform was consistently the dominant contaminant during each of the sampling events. For this reason, Chloroform results are included herein and are plotted in the attached graph, "Chloroform Contamination in Well Water - Virgin Island Chemical Co. Site, St. Croix". Since the purpose of this report is to merely assemble pertinent data, and not to interpret the data or make recommendations based on the data, all analyzed data, including qualified and rejected data, are included in this report.

It should be pointed out that the Drinking Water Maximum Contaminant Level for total trihalomethanes is 100 ug/l (See 40 CFR §141.12) and the 1980 Federal Water Quality Criteria for Chloroform (as revised), based on a carcinogenicity of 10^{-6} , is 5.70 ug/l for human exposure from contaminated water and fish.

COMPENDIUM

1. RCRA Enforcement (3/13/86) The Environmental Services Division (ESD) of Region 2 conducted a RCRA Enforcement Inspection of the VIChem facility, then known as Berlex Laboratories, on March 13, 1986. The inspection included 3 soil samples taken from the intermittent stream, or "gut", on the site perimeter, 2 soil samples obtained from the laboratory water drainage pit, and one sample taken from the production well in the northwest corner of the property. The results of the organic analysis from the production well indicated Chloroform contamination at a level of 130 ug/l.

2. St. Croix Well Survey Phase I (3/7/88-3/10/88) The Response and Prevention Branch (RPB) conducted well sampling for volatile organic constituents at 21 locations in St. Croix, including four wells in the vicinity of the VIChem Site. The data was rejected by the Monitoring Management Branch (MMB) due to excessive holding times. Chloroform contamination was indicated in the October 25, 1988 report, "St. Croix Well Survey", prepared by Weston - TAT, as shown below:

Well Name	Fairplains #6	Fairplains #9	VIPA #1	VIPA #2
Chloroform (ug/l)	24	75 & 70	11.5	11.3

3. St. Croix Well Survey Phase I (10/31/88-11/2/88) RPB resampled wells at eight locations, including four wells in the vicinity of the VIChem Site. Chloroform contamination was indicated as shown below:

Well Name	Fairplains #6	Fairplains #9	Fairplains #8	VIPA #2
Chloroform (ug/l)	35.9	10.4 & 9.7	12.4	1.6U*

* Chloroform was not detected at the detection level of 1.6 ug/l.

4. ViChem Removal Action Phase I (1/17/90) During Phase I removal action activities at ViChem, three off-site wells and the on-site water tank were sampled for volatile organic contamination. Analytical services were provided by a private laboratory procured by the TAT. In addition to the routine QA/QC required for Level 2 Removal Program sampling, two performance evaluation samples and one blind duplicate sample were analyzed. TAT validated the data and, although QA/QC discrepancies were slight and few, the data was qualified as estimated. Once again, Chloroform was the most dominant compound in each sample; the data for this contaminant are shown below:

Well Name	Fairplains #6	Fairplains #9	Fairplains #8	Water Tank
Chloroform (ug/l)	39.0	25.0	5.0	23.9*

* This is an average of Chloroform contamination in the three tank samples (Water tank sample = 23.9 ug/l, Water tank drain sample = 22.7 ug/l, Water tank pump sample = 25.0 ug/l).

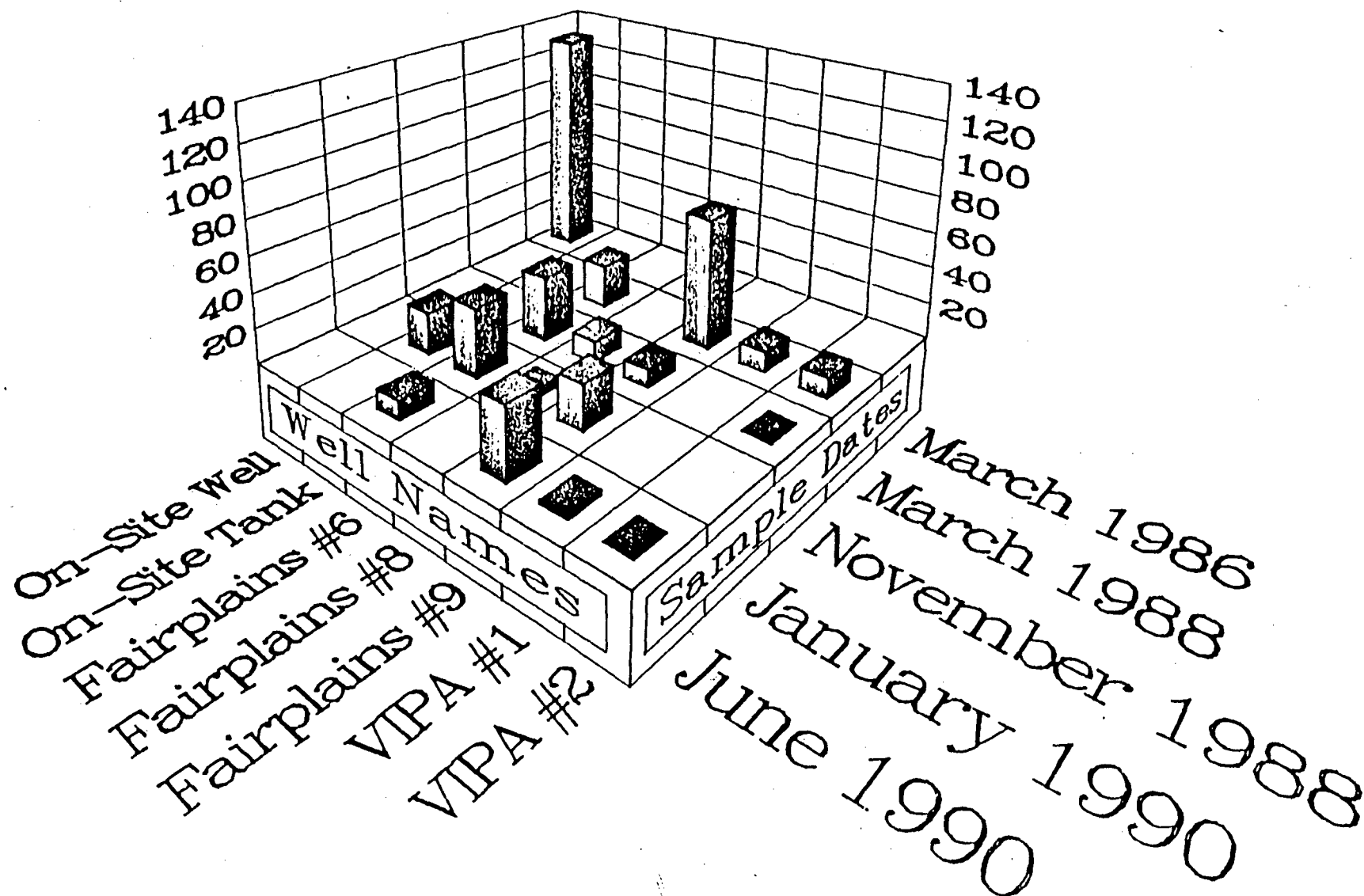
5. ViChem Removal Action Phase I (6/25/90) During Phase II removal action activities at ViChem, four off-site wells were sampled and analyzed for volatile organic contaminants. When detected, Chloroform was the most dominant compound in each sample and in 3 out of 4 samples the only VOC detected. Analytical services were provided by the Contract Laboratory Program and the data was validated by MMB. The only data qualified was for a QA/QC sample for a single compound. The Chloroform data for this sampling event are shown below:

Well Name	Fairplains #6	Fairplains #9	VIPA #1	VIPA #2
Chloroform (ug/l)	11	39	2J*	5U**

* An estimated value of 2 ug/l was reported.

** Chloroform was not detected at the detection level of 5 ug/l.

Chloroform Contamination (ug/l) in Well Water



Virgin Island Chemical Site, St. Croix