Phase-II
Environmental Investigation

Former Thypin Steel Corp.
Manorhaven, New York

April 12, 1999

Prepared For:

Mr. Lennard Axinn

Island Estates
233 Union Avenue, Suite 102
Holbrook, New York 11741

Prepared by:

C.A. Rich Consultants, Inc.
404 Glen Cove Avenue
Sea Cliff, New York 11579

TABLE OF CONTENTS

CA RICH CONSULTANTS, INC.
CERTIFIED GROUND-WATER AND
ENVIRONMENTAL SPECIALISTS

Privileged & Confidential

April 12, 1999

ISLAND ESTATES
233 Union Avenue, Suite 102
Holbrook, NY 11741

Attn: Lennard Axinn
President

Re: Report
Phase II Testing:
Former Thypin Steel Corp. Facility
Manorhaven, NY

Dear Mr. Axinn:

1.0 INTRODUCTION/BACKGROUND

On March 16, 1999, CA Rich Consultants, Inc. (CA RICH) of Sea Cliff, New York, conducted Phase II - related field activities at the former Thypin Steel Property (hereinafter referred to as the Property or Site). This most recent testing was conducted in accordance with our approved proposal dated February 26, 1999.

The Property is located immediately southwest of the intersection of Yennicock Avenue and Sagamore Hill Road in Manorhaven, Nassau County, NY. The subject Property is situated within a mixed industrial/residential area of Manorhaven, with a bay to the west. The subject Property consists of an 11-acre area that contains no buildings. All on-site aboveground structures associated with the former Thypin Steel Facility were reportedly demolished approximately five years ago. At the time of the investigation the Property had a mixture of brush, crushed stone and gravel where portions of the former buildings were, and paved areas that were formerly used as parking lots.

Previous to this most recent subsurface testing and analysis, CA RICH performed a Phase I Environmental Site Assessment. During Phase I activities, seven on-site test pits were dug, and two samples were sent to a State-certified laboratory for analysis. The laboratory analysis indicated the presence of heavy metals in excess of NYSDEC Technical and Operational Guidance Memorandum (TAGM) cleanup criteria (NYSDEC 1994). Petroleum hydrocarbons were also present in one of the samples sent to the laboratory, suggesting the presence of petroleum-related volatile and semi-volatile organic compounds. Phase I activities also revealed an historical property usage as an airplane and metal heater manufacturing facility and the former presence of twelve petroleum underground storage tanks (USTs).

2.0 SUMMARY OF FIELD ACTIVITIES

On March 16, 1999, CA RICH mobilized a backhoe to excavate 10 test pits at the Property. As the backhoe unearthed the soil it was screened with an HNu Systems Model SP-101 Photo-Ionization Detector (HNu) to determine the presence or absence of total organic vapor. Each test pit continued until the water table was reached (approximately 20 feet). A Site Plan showing the location of each test pit is attached to this Report as Figure 1.

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Five test pits were excavated in the area surrounding the contaminated test pit identified during our previous Report (TP-6). Test pits TP-6A, TP-6B, TP-6C, TP-6D, & TP-6E were excavated to delineate the extent of the contamination at location TP-6. Test pits TP-6A, TP-6B, TP-6C, & TP-6E revealed no visible signs of contamination or detections with our field meters. The subsurface beneath location TP-6D revealed the presence of a possible abandoned drain. The drain was covered over by cement, beneath which a cement collar and cement brick walls of an old drainage structure were revealed. Near the center of the former drain, at a depth of approximately 15 feet, the backhoe unearthed a blue, green, and gray, sludge. A sample was collected from this location for laboratory analysis. The excavation was extended to the north, west, and east to determine the extent of the contamination. There were no obvious signs of contamination in these directions. The contamination seems to be isolated between location TP-6D and TP-6, an area of approximately 400-500 square feet.

Results

400-500 SF

Location TP-6E revealed the presence of a possible old water main at about 8 feet below the surface and traveling in the east - west direction. There were no signs of contamination in the vicinity of the pipe.

OK

Test pit TP-8 was excavated in the vicinity of a depression in the land surface. As the excavation proceeded two pipes were unearthed. The first was a ceramic pipe at a depth of approximately 6 feet, which was smashed open by the backhoe. The pipe was dry and did not contain any material. The second was a metal pipe traveling in the north - south direction, also broken by the backhoe. It did not contain any material and the center of the metal pipe contained only rust. The sediment in the vicinity of the pipes was tan sand and displayed no signs of contamination.

OK

Test pit TP-9 was excavated in the vicinity of former underground storage tanks. The excavation revealed the remains of piping and a pump island, which were most probably connected to the former tank. There were no obvious signs of contamination. However, one small area of soil seemed darker then the rest. A sample was collected from this location for laboratory analysis.

Results ?

Test Pit TP-10 was also excavated in the vicinity of former underground storage tanks. The excavation did not reveal the remains of any former tanks, however, at a depth of approximately 3.5 feet below the surface an area of sediment was encountered that revealed visible signs of possible contamination. The sediment was dark brown with areas of white and green. The remains of a burlap or steel wool sack were in the soil immediately surrounding this material. A sample was collected from this area for laboratory analysis.

Results

Test pit TP-11 was excavated at a manhole located on the western portion of the property. The backhoe removed the cement collar of the structure and unearthed the soil until the water table was reached. The excavation of this area did not reveal any visible signs of contamination or any detections with field instrumentation.

OK

On March 17, 1999, CA RICH returned to the site to collect a groundwater sample in the area of the former plating area. CA RICH mobilized a truck mounted Geoprobe™ to collect a groundwater sample from a depth of 18-22 feet. At this time the water levels of the on-site monitoring wells were recorded. There was no water in monitoring well MW-3.

Results

All samples were kept in a cooler on ice and delivered by CA RICH personnel to Ecotest Laboratories in North Babylon, New York to be analyzed for volatile organic compounds, semi-volatile organic compounds, and metals. Sample TP-6D was also analyzed for PCBs, Toxicity Characteristic Leachate Procedures (TCLP), and RCRA Hazardous Waste Characteristics. The sample locations are indicated on Figure 1 and the results of laboratory analysis are summarized on Table 1.

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3.0 FINDINGS

Laboratory analysis of sample TP-6D revealed the presence of certain volatile and semi-volatile organic compounds, but none were in excess of NYSDEC TAGM objectives. The metals: cadmium, chromium, mercury, copper, nickel, and zinc were present at concentrations exceeding the NYSDEC TAGM objectives. The highest concentrations measured were for zinc, found at a level of 360 milligrams per kilogram (mg/kg) and copper, found at a level of 240 mg/kg. Both of these concentrations exceed the NYSDEC cleanup objectives of 20 mg/kg and 25 mg/kg, respectively. The PCB isomer, Aroclor 1260, was detected in TP-6D at a concentration of 6.1 milligrams per kilogram. This concentration is slightly below NYSDEC's cleanup objective for subsurface soils of 10 mg/kg.

According to the laboratory results and the NYSDEC Identification and Listing of Hazardous Wastes document (NYSDEC 6 NYCRR Part 371), the soil from sample TP-6D would not be classified as hazardous waste based upon the characteristics measured. A hazardous waste is considered to have a flash point of below 60 degrees Celsius, a pH of less than or equal to 2 or greater than or equal to 12.5, and both reactive cyanide and sulfide between 2-12.5. Sample TP-6D revealed none of these characteristics, with a flash point of greater than 100 degrees Celsius, a pH of 7.5, and reactive cyanide an sulfide at less than 2. Certain Toxicity Characteristic Leachate Procedure (TCLP) compounds were also detected but were not characteristic of hazardous waste as per NYSDEC guidelines.

Laboratory analysis for sample TP-9 revealed no volatile organic compounds in excess of NYSDEC objectives. Certain semi-volatile organic compounds were measured, but only Chrysene exceeded the NYSDEC objective. Chrysene was detected at 580 micrograms per kilogram (ug/kg), slightly exceeding the NYSDEC objective of 400 ug/kg. Certain metals were also detected in this sample, some of then exceeding the NYSDEC objectives, specifically cadmium, chromium, copper, nickel, and zinc. The highest concentrations were for copper, and zinc, both exceeding the NYSDEC objective by an order of magnitude.

Laboratory analysis for sample TP-10 revealed no volatile or semi-volatile organic compounds in excess of NYSDEC objectives. However, certain metals were detected in the sample, some exceeding the NYSDEC objectives, specifically cadmium, chromium, copper, nickel, and zinc. Chromium exceeded the NYSDEC objective by one order of magnitude, and both copper and zinc exceeded the NYSDEC objective by two orders of magnitude.

Laboratory analysis for sample GW-1 revealed the presence of the volatile organic compound trichloroethylene at a concentration of 190 micrograms per liter (ug/L). This concentration is well in excess of NYSDEC's limitation standard for Class GA waters (potable groundwater) of 5 ug/L. Low-level concentrations of additional VOCs were observed including tetrachloroethylene and the biodegradation "daughter products" 1,1 dichloroethane, 1,1 dichloroethene and vinyl chloride. The semi-volatile compound Bis (2-ethylhexyl)phthalate was detected at a concentration of 2 ug/L. This concentration is well below the NYSDEC standard of 50 ug/L. No metals were detected in GW-1 in excess of NYSDEC limitation criteria.

A summary of analytical detections is presented on Table 1. Copies of laboratory data sheets are included in Appendix B.

4.0 CONCLUSIONS & RECOMMENDATIONS

Site assessments from Phase I and Phase II investigations reveal limited metals contamination in the soil for three areas on the Property. The most significant of these is the approximately 500 square-foot area delineated by Test Pits 6 and 6D. CA RICH recommends the excavation and proper off-site disposal of the impacted subsurface soil/sludge material within the TP-6/TP-6D area. In addition, the minor amounts of stained soils in the area of TP-9 and TP-10 should also be removed. Based upon the limits of the testing conducted to date, the total volume of impacted soil/ sludge material is estimated to be approximately 30 to 40 cubic yards or roughly 50 tons.

RECOMENDATION

METALS → 3 areas

- Excavation / Disposal
- TP-6/TP-6D → soil sludge 500 ft²
- TP-9 — STAINED SOIL
- TP-10 — STAINED SOIL

Data analysis reveals that on-site shallow groundwater quality in the vicinity of TP-6 has been impacted by volatile organic compounds (VOCs). As such, further groundwater testing is recommended to confirm the presence, and determine the nature and distribution of the identified VOC contamination. CA RICH recommends the installation of a minimum of two (2) new water table monitoring wells, one directly northwest of location TP-6, and one in a downgradient location (closer to the bay). Proposed locations for these wells are displayed on Figure 1. It should be noted that an existing well (MW-3) is present in a downgradient location, however, this well was observed to be dry during our on-site inspection. The two new wells and existing monitoring wells MW-1 and MW-2 should be surveyed for elevation to the nearest .01 feet and sampled for volatile and base-neutral organics, PCBs, and metals.

5.0 CERTIFICATION AND DISCLAIMER

CA RICH performed this testing diligently in accordance with good commercial and customary practice and generally accepted protocols within the environmental consulting profession. There were no intentional deviations or deletions from standard procedures in the conductance of this work. CA RICH cannot warrant site-wide conditions because there may remain unknown or hidden conditions that could not be revealed during the limited testing conducted. Also, the undersigned cannot be held responsible for innocent or intentional misrepresentations or inaccurate information furnished to CA RICH regarding the environmental integrity of the Property included in this investigation. However, we do acknowledge that to the best of our belief, the information supplied is true, complete and correct, and that facts or figures that may have an adverse effect upon the validity of this study have not purposely been omitted.

CA RICH has no interest other than professional in this Investigation and neither its performance, nor compensation for same, is contingent upon the findings, conclusions and recommendations represented herein.

We trust you find this information responsive to your needs at this time. Please do not hesitate to contact the undersigned if you have any questions or require additional information.

Yours very truly,

CA RICH CONSULTANTS, INC.

Stephen T. Malinowski,
Project Scientist

Richard J. Izzo, CPG
Associate

STM:RJI:tk
Attachments

Figures

Table 1
Summary of Analytical Parameters Detected in Soil and Groundwater Samples
Former Thypin Steel Property
Manorhaven, NY

Sample Location	TP-6D	TP-9	TP-10	TAGM Guidance Values*	GW-1	TOGS Guidance Values**
Matrix	Soil	Soil	Soil	Soil	Water	Water
Parameter						
Volatiles	ug/kg	ug/kg	ug/kg	ug/kg	ug/L	ug/L
Trichloroethylene	190	ND	9	700	196	5
Tetrachloroethene	11	ND	ND	1,400	6	5
Vinyl Chloride	ND	ND	ND	120	74	2
1,1 Dichloroethene	ND	ND	ND	400	2	5
1,1 Dichloroethane	ND	ND	ND	200	2	5
111 Trichloroethane	ND	ND	ND	760	1	5
C-1,2-Dichloroethene	ND	ND	ND	no guideline reported for soils	418	5
Semi Volatiles	ug/kg	ug/kg	ug/kg	ug/kg	ug/L	ug/L
1,2 Dichlorobenzene	ND	300	ND	7,900	ND	5
Penanthrene	210	780	ND	220,000	ND	50
Anthracene	ND	150	ND	700,000	ND	50
Fluoranthene	350	1100	ND	1,900,000	ND	50
Pyrene	550	1200	ND	665,000	ND	50
Benzo(a)anthracene	210	520	ND	3,000	ND	0.002
Chrysene	240	580	ND	400 ✓	ND	0.002
Bis(2-ethylhexyl)phthalate	ND	350	ND	435,000 ✓	2	50
Benzo(b)fluoranthene	ND	550	ND	1,100 ✓	ND	0.002
Benzo(k)fluoranthene	ND	550	ND	1,100 ✓	ND	0.002
Benzo(a)pyrene	ND	590	ND	11,000 ✓	ND	0.002
Metals	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L
Arsenic as As	5.6	4.8	ND	7.5	0.013	0.025
Barium as Ba	150	120	290	300	0.13	1
Cadmium as Cd	1.5	1.2	4.2	1	ND	0.01
Chromium as Cr	32	24	310	10	0.022	0.05
Lead as Pb	160	120	210	SB	0.008	0.025
Mercury as Hg	0.12	0.048	ND	0.1	ND	0.002
Selenium as Se	0.78	ND	0.56	2	ND	0.01
Copper as Cu	240	180	2,000	25	ND	0.2
Nickel as Ni	120	91	29	13	0.04	N/A
Zinc as Zn	900	290	6,800	20	0.08	0.3
PCBs	ug/kg			ug/kg		
Arocior 1260	6,100	NA	NA	10,000	NA	NA
TCLP	ug/L			ug/L		
Trichloroethylene	7	NA	NA	500	NA	NA
Barium as Ba	190	NA	NA	100,000	NA	NA
RCRA Characteristics***						
Flash Point (deg C)	>100	NA	NA	<60	NA	NA
Reactive Cyanide	<2 mg/kg	NA	NA	2-12.5	NA	NA
Sulfide as S	<2mg/kg	NA	NA	2-12.5	NA	NA
pH	7.5	NA	NA	≤2 or ≥12.5	NA	NA
Petrol. Hydrocarbons	38 mg/kg	NA	NA	1,000 mg/kg	NA	NA

Notes:

Values for PCB, TCLP, and RCRA Characteristics from NYSDEC 6 NYCRR Part 371 Identification and Listing of Hazardous Wastes

* *Values for Volatiles, Semi-volatiles, and metals for TP-6D, TP-9, and TP-10 from NYSDEC Technical and Administrative Guidance Memorandum Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM), 1994.*

** *Values for GW-1 from NYSDEC Technical and Operational Guidance Series (TOGS), Ambient Water Quality Standards and Guidance Values, 1993*

*** *RCRA Hazardous Waste Characteristics*

NA = Not analyzed

mg/kg = milligrams per kilogram or parts per million

mg/L = milligrams per liter or parts per million

ug/kg = micrograms per kilogram or parts per billion

ug/L = micrograms per liter or parts per billion

SB = background levels for lead very widely. Average levels in suburban areas range from 200-500 mg/kg.

ND = not detected

Values exceed NYSDEC Guidelines

Prepared by CA RICH Consultants, Inc.

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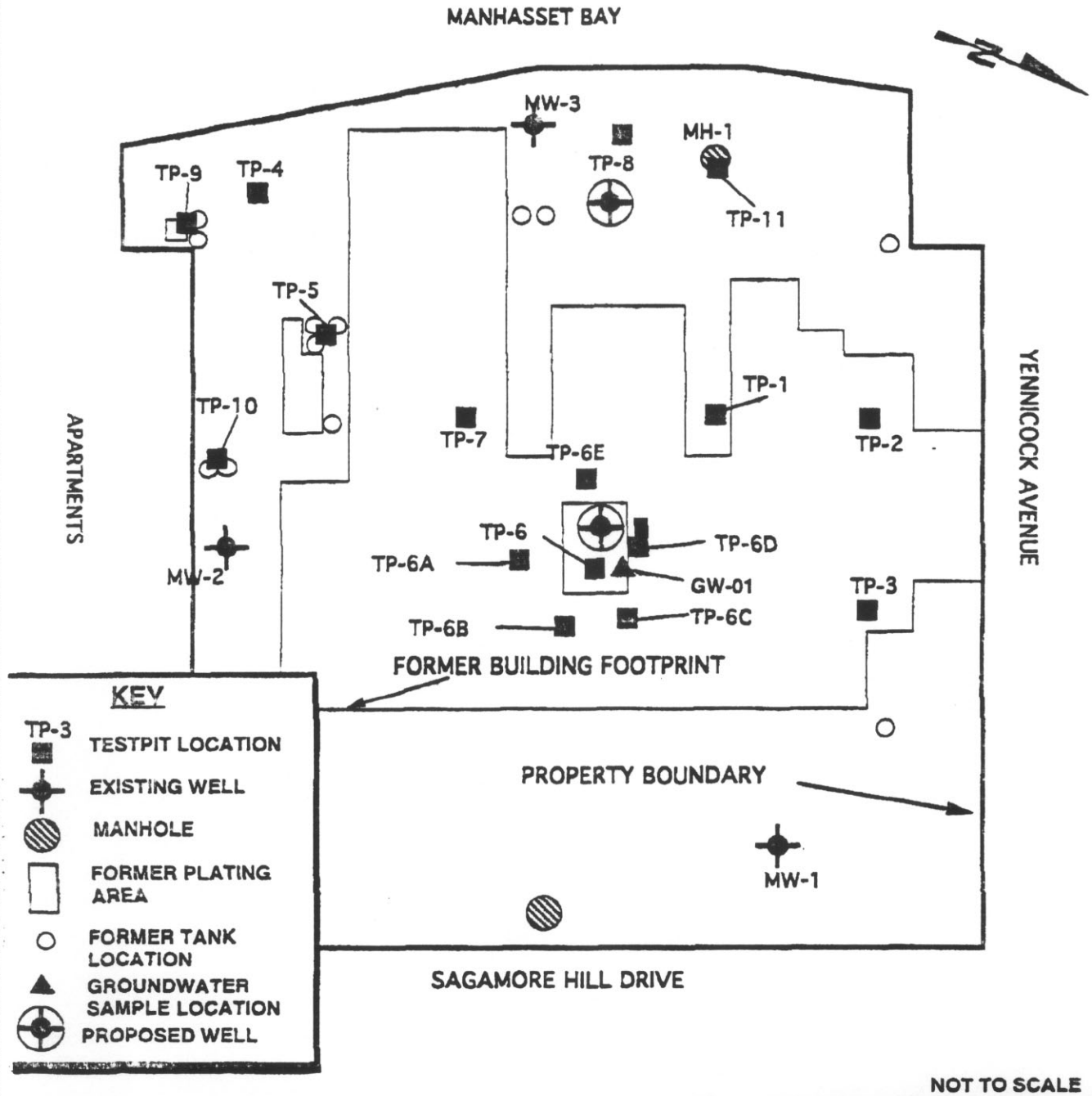

NOT TO SCALE

APPROXIMATE TEST PIT LOCATIONS

CA RICH CONSULTANTS, INC. **Certified Ground-Water and Environmental Specialists**	**FORMER THYPIN STEEL PROPERTY** **MANORHAVEN, NY**
404 Glen Cove Avenue, Sea Cliff, N.Y. 11579	**Prepared By:** STM — **Date:** April 1999
	Reviewed By: RJI — **Figure:** 2

Tables

APPENDIX A

Laboratory Analytical Data

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO:991112.01 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-6D, 1145
UNITS: ug/Kg

ANALYTICAL PARAMETERS		ANALYTICAL PARAMETERS	
Bis(2-chloroethyl)ether	<300	2,4-Dinitrotoluene	<300
1,3 Dichlorobenzene	<300	Diethyl Phthalate	<300
1,4 Dichlorobenzene	<300	4-Chlorophenyl phenyl ether	<300
Carbazole	<300	Fluorene	<300
1,2 Dichlorobenzene	<300	4-Nitroaniline	<300
Bis(2-chloroisopropyl)ether	<300	N-Nitrosodiphenylamine	<300
N-Nitrosodi-n-propylamine	<300	4-Bromophenyl phenyl ether	<300
Hexachloroethane	<300	Hexachlorobenzene	<300
Nitrobenzene	<300	Phenanthrene	210^
Isophorone	<300	Anthracene	<300
Bis(2-chloroethoxy)methane	<300	Di-n-Butyl Phthalate	<300
124-Trichlorobenzene	<300	Fluoranthene	350
Naphthalene	<300	Pyrene	550
4-Chloroaniline	<300	BenzylButylPhthalate	<300
Hexachlorobutadiene	<300	3,3'-Dichlorobenzidine	<300
2-Methylnaphthalene	<300	Benzo(a)anthracene	210^
Hexachlorocyclopentadiene	<3000	Chrysene	240^
2-Chloronaphthalene	<300	Bis(2-ethylhexyl)phthalate	<300
2-Nitroaniline	<300	Di-n-octyl Phthalate	<300
Dimethyl Phthalate	<300	Benzo(b)fluoranthene	<300
Acenaphthylene	<300	Benzo(k)fluoranthene	<300
2,6-Dinitrotoluene	<300	Benzo(a)pyrene	<300
3-Nitroaniline	<300	Indeno(1,2,3-cd)pyrene	<300
Acenaphthene	<300	Dibenzo(a,h)anthracene	<300
Dibenzofuran	<300	Benzo(ghi)perylene	<300

cc:

REMARKS: EPA 8270, Base/Neutral Extractable SVOCs
^Reported below quantification limit.
Elevated detection limits due to interference in sample.

DIRECTOR

rn= 6791 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

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LAB NO.991112.01 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-6D, 1145

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
p-Isopropyltoluene	ug/Kg	<5	
1,3 Dichlorobenzene	ug/Kg	<5	
1,4 Dichlorobenzene	ug/Kg	<5	
n-Butylbenzene	ug/Kg	<5	
1,2 Dichlorobenzene	ug/Kg	<5	
Dibromochloropropane	ug/Kg	<5	
124-Trichlorobenzene	ug/Kg	<5	
Hexachlorobutadiene	ug/Kg	<5	
Naphthalene	ug/Kg	<5	
123-Trichlorobenzene	ug/Kg	<5	
ter.ButylMethylEther	ug/Kg	<5	
p-Ethyltoluene	ug/Kg	<5	
Freon 113	ug/Kg	<5	
1245 Tetramethylbenz	ug/Kg!	<5	
Acetone	ug/Kg	<50	
Methyl Ethyl Ketone	ug/Kg	<50	
Methylisobutylketone	ug/Kg	<50	
Chlorodifluoromethan	ug/Kg	<5	
p Diethylbenzene	ug/Kg	<5	
% Solids		54	

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

DIRECTOR

rn= 6790 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.01 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-6D, 1145

ANALYTICAL PARAMETERS		
Dichlordifluomethane	ug/Kg	<5
Chloromethane	ug/Kg	<5
Vinyl Chloride	ug/Kg	<5
Bromomethane	ug/Kg	<5
Chloroethane	ug/Kg	<5
Trichlorofluomethane	ug/Kg	<5
1,1 Dichloroethene	ug/Kg	<5
Methylene Chloride	ug/Kg	<5
t-1,2-Dichloroethene	ug/Kg	<5
1,1 Dichloroethane	ug/Kg	<5
2,2-Dichloropropane	ug/Kg	<5
c-1,2-Dichloroethene	ug/Kg	<5
Bromochloromethane	ug/Kg	<5
Chloroform	ug/Kg	<5
111 Trichloroethane	ug/Kg	<5
Carbon Tetrachloride	ug/Kg	<5
1,1-Dichloropropene	ug/Kg	<5
Benzene	ug/Kg	<5
1,2 Dichloroethane	ug/Kg	<5
Trichloroethylene	ug/Kg	190
1,2 Dichloropropane	ug/Kg	<5
Dibromomethane	ug/Kg	<5
Bromodichloromethane	ug/Kg	<5
c-1,3Dichloropropene	ug/Kg	<5
Toluene	ug/Kg	<5

ANALYTICAL PARAMETERS		
t-1,3Dichloropropene	ug/Kg	<5
112 Trichloroethane	ug/Kg	<5
Tetrachloroethene	ug/Kg	11
1,3-Dichloropropane	ug/Kg	<5
Chlorodibromomethane	ug/Kg	<5
1,2 Dibromoethane	ug/Kg	<5
Chlorobenzene	ug/Kg	<5
Ethyl Benzene	ug/Kg	<5
1112Tetrachloroethan	ug/Kg	<5
m + p Xylene	ug/Kg	<10
o Xylene	ug/Kg	<5
Styrene	ug/Kg	<5
Bromoform	ug/Kg	<5
Isopropylbenzene	ug/Kg	<5
Bromobenzene	ug/Kg	<5
1122Tetrachloroethan	ug/Kg	<5
123-Trichloropropane	ug/Kg	<5
n-Propylbenzene	ug/Kg	<5
2-Chlorotoluene	ug/Kg	<5
135-Trimethylbenzene	ug/Kg	<5
4-Chlorotoluene	ug/Kg	<5
tert-Butylbenzene	ug/Kg	<5
124-Trimethylbenzene	ug/Kg	<5
sec-Butylbenzene	ug/Kg	<5

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
Page 1 of 2.

DIRECTOR

rn= 6789 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.01 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates, TCLP/ZHE
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-6D, 1145

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Carbon Tetrachloride	ug/L*	<1	
Chlorobenzene	ug/L*	<1	
Chloroform	ug/L*	<1	
1,4 Dichlorobenzene	ug/L*	<2	
1,2 Dichloroethane	ug/L*	<1	
1,1 Dichloroethene	ug/L*	<1	
Methyl Ethyl Ketone	ug/L*	<20	
Tetrachloroethene	ug/L*	<1	
Trichloroethylene	ug/L*	7	
Vinyl Chloride	ug/L*	<1	
Benzene	ug/L*	<1	

cc:

REMARKS: * Analysis performed on TCLP Leachate according to USEPA Method 1311.
TCLP-VOCs

DIRECTOR

rn= 6788 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.01 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates, TCLP/MET
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-6D, 1145

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/L*	<0.05	
Barium as Ba	mg/L*	0.19	
Cadmium as Cd	mg/L*	<0.05	
Chromium as Cr	mg/L*	<0.05	
Lead as Pb	mg/L*	<0.05	
Mercury as Hg	mg/L*	<0.001	
Selenium as Se	mg/L*	<0.05	
Silver as Ag	mg/L*	<0.05	

cc:

REMARKS: * Analysis performed on TCLP Leachate according to USEPA Method 1311.

DIRECTOR

rn= 6787 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO:991112.01 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates, TCLP/SV
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-6D, 1145
UNITS: ug/L*

ANALYTICAL PARAMETERS		ANALYTICAL PARAMETERS
ndane	<0.5	
drin	<0.5	
thoxychlor	<1	
xaphene	<10	
lordane	<2	
ptachlor	<0.5	
ptachlor Epoxide	<0.5	
4-D	<1	
4,5-TP	<0.5	
Methylphenol (o-cresol)	<10	
Methylphenol (m-cresol)	<10	
Methylphenol (p-cresol)	<10	
ntachlorophenol	<100	
4,5-Trichlorophenol	<10	
4,6-Trichlorophenol	<10	
4-Dinitrotoluene	<10	
xachlorobenzene	<10	
xachlorobutadiene	<10	
xachloroethane	<10	
trobenzene	<10	
ridine	<10	

cc:

REMARKS: * Analysis performed on TCLP Leachate according to USEPA Method 1311.
TCLP Pesticides, Herbicides & SVOCs

DIRECTOR

n= 6786 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.01 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-6D, 1145

ANALYTICAL PARAMETERS		
Arsenic as As	mg/Kg	5.6
Barium as Ba	mg/Kg	150
Cadmium as Cd	mg/Kg	1.5
Chromium as Cr	mg/Kg	32
Lead as Pb	mg/Kg	150
Mercury as Hg	mg/Kg	0.12
Selenium as Se	mg/Kg	0.78
Silver as Ag	mg/Kg	<0.5
Flash Point deg C		>100
Reactive cyanide	mg/Kg	<2
Sulfide as S	mg/Kg	<2
pH (lab) units		7.5
Petrol. Hydrocarbons	mg/Kg	38
Aroclor 1016	ug/Kg	<1000
Aroclor 1221	ug/Kg	<1000
Aroclor 1232	ug/Kg	<1000
Aroclor 1242	ug/Kg	<1000
Aroclor 1248	ug/Kg	<1000
Aroclor 1254	ug/Kg	<1000
Aroclor 1260	ug/Kg	6100
Copper as Cu	mg/Kg	240
Nickel as Ni	mg/Kg	120

ANALYTICAL PARAMETERS		
Zinc as Zn	mg/Kg	360

cc:

REMARKS:

DIRECTOR

rn= 6792 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

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LAB NO.991112.02 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-9, 1339

ANALYTICAL PARAMETERS		
Dichlordifluomethane	ug/Kg	<5
Chloromethane	ug/Kg	<5
Vinyl Chloride	ug/Kg	<5
Bromomethane	ug/Kg	<5
Chloroethane	ug/Kg	<5
Trichlorofluomethane	ug/Kg	<5
1,1 Dichloroethene	ug/Kg	<5
Methylene Chloride	ug/Kg	<5
t-1,2-Dichloroethene	ug/Kg	<5
1,1 Dichloroethane	ug/Kg	<5
2,2-Dichloropropane	ug/Kg	<5
c-1,2-Dichloroethene	ug/Kg	<5
Bromochloromethane	ug/Kg	<5
Chloroform	ug/Kg	<5
111 Trichloroethane	ug/Kg	<5
Carbon Tetrachloride	ug/Kg	<5
1,1-Dichloropropene	ug/Kg	<5
Benzene	ug/Kg	<5
1,2 Dichloroethane	ug/Kg	<5
Trichloroethylene	ug/Kg	<5
1,2 Dichloropropane	ug/Kg	<5
Dibromomethane	ug/Kg	<5
Bromodichloromethane	ug/Kg	<5
c-1,3Dichloropropene	ug/Kg	<5
Toluene	ug/Kg	<5

ANALYTICAL PARAMETERS		
t-1,3Dichloropropene	ug/Kg	<5
112 Trichloroethane	ug/Kg	<5
Tetrachloroethene	ug/Kg	<5
1,3-Dichloropropane	ug/Kg	<5
Chlorodibromomethane	ug/Kg	<5
1,2 Dibromoethane	ug/Kg	<5
Chlorobenzene	ug/Kg	<5
Ethyl Benzene	ug/Kg	<5
1112Tetrachloroethan	ug/Kg	<5
m + p Xylene	ug/Kg	<10
o Xylene	ug/Kg	<5
Styrene	ug/Kg	<5
Bromoform	ug/Kg	<5
Isopropylbenzene	ug/Kg	<5
Bromobenzene	ug/Kg	<5
1122Tetrachloroethan	ug/Kg	<5
123-Trichloropropane	ug/Kg	<5
n-Propylbenzene	ug/Kg	<5
2-Chlorotoluene	ug/Kg	<5
135-Trimethylbenzene	ug/Kg	<5
4-Chlorotoluene	ug/Kg	<5
tert-Butylbenzene	ug/Kg	<5
124-Trimethylbenzene	ug/Kg	<5
sec-Butylbenzene	ug/Kg	<5

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
Page 1 of 2.

DIRECTOR

rn= 6793 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.02 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-9, 1339

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
p-Isopropyltoluene	ug/Kg	<5	
1,3 Dichlorobenzene	ug/Kg	<5	
1,4 Dichlorobenzene	ug/Kg	<5	
n-Butylbenzene	ug/Kg	<5	
1,2 Dichlorobenzene	ug/Kg	<5	
Dibromochloropropane	ug/Kg	<5	
124-Trichlorobenzene	ug/Kg	<5	
Hexachlorobutadiene	ug/Kg	<5	
Naphthalene	ug/Kg	<5	
123-Trichlorobenzene	ug/Kg	<5	
ter.ButylMethylEther	ug/Kg	<5	
p-Ethyltoluene	ug/Kg	<5	
Freon 113	ug/Kg	<5	
1245 Tetramethylbenz	ug/Kg!	<5	
Acetone	ug/Kg	<50	
Methyl Ethyl Ketone	ug/Kg	<50	
Methylisobutylketone	ug/Kg	<50	
Chlorodifluoromethan	ug/Kg	<5	
p Diethylbenzene	ug/Kg	<5	
% Solids		88	

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

DIRECTOR

rn= 6794 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.02 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-9, 1339

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS		
Bis(2-chloroethyl)et	ug/Kg	<300	2,4-Dinitrotoluene	ug/Kg	<300
1,3 Dichlorobenzene	ug/Kg	<300	Diethyl Phthalate	ug/Kg	<300
1,4 Dichlorobenzene	ug/Kg	<300	4-Chlorophenyl pheny	ug/Kg	<300
Carbazole	ug/Kg	<300	Fluorene	ug/Kg	<300
1,2 Dichlorobenzene	ug/Kg	300	4-Nitroaniline	ug/Kg	<300
Bis(2-chloroisopropy	ug/Kg	<300	N-Nitrosodiphenylami	ug/Kg	<300
N-Nitrosodi-n-propyl	ug/Kg	<300	4-Bromophenyl phenyl	ug/Kg	<300
Hexachloroethane	ug/Kg	<300	Hexachlorobenzene	ug/Kg	<300
Nitrobenzene	ug/Kg	<300	Phenanthrene	ug/Kg	780
Isophorone	ug/Kg	<300	Anthracene	ug/Kg	150^
Bis(2-chloroethoxy)m	ug/Kg	<300	Di-n-Butyl Phthalate	ug/Kg	<300
124-Trichlorobenzene	ug/Kg	<300	Fluoranthene	ug/Kg	1100
Naphthalene	ug/Kg	<300	Pyrene	ug/Kg	1200
4-Chloroaniline	ug/Kg	<300	BenzylButylPhthalate	ug/Kg	<300
Hexachlorobutadiene	ug/Kg	<300	3,3'-Dichlorobenzidi	ug/Kg	<3000
2-Methylnaphthalene	ug/Kg	<300	Benzo(a)anthracene	ug/Kg	520
Hexachlorocyclopenta	ug/Kg	<3000	Chrysene	ug/Kg	580
2-Chloronaphthalene	ug/Kg	<300	Bis(2-ethylhexyl)pht	ug/Kg	350
2-Nitroaniline	ug/Kg	<300	Di-n-octyl Phthalate	ug/Kg	<300*
Dimethyl Phthalate	ug/Kg	<300	Benzo(b)fluoranthene	ug/Kg	550*^^
Acenaphthylene	ug/Kg	<300	Benzo(k)fluoranthene	ug/Kg	550*^^
2,6-Dinitrotoluene	ug/Kg	<300	Benzo(a)pyrene	ug/Kg	590*
3-Nitroaniline	ug/Kg	<300	Indeno(1,2,3-cd)pyre	ug/Kg	<300*
Acenaphthene	ug/Kg	<300	Dibenzo(a,h)anthrace	ug/Kg	<300*
Dibenzofuran	ug/Kg	<300	Benzo(ghi)perylene	ug/Kg	<300*

cc:

REMARKS: EPA 8270, Base/Neutral Extractable SVOCs
Date of extraction;03/22/99
^^Total = 1100 ug/Kg, unable to separate isomers.
^Reported below quantification limit.
*Estimated due to low internal standard recovery, 44%.
Lower recovery due to interference; QC limit is 50%.

DIRECTOR

rn= 6795 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.02 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-9, 1339

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	4.8	
Barium as Ba	mg/Kg	120	
Cadmium as Cd	mg/Kg	1.2	
Chromium as Cr	mg/Kg	24	
Lead as Pb	mg/Kg	120	
Mercury as Hg	mg/Kg	0.048	
Selenium as Se	mg/Kg	<0.8	
Silver as Ag	mg/Kg	<0.2	
Copper as Cu	mg/Kg	180	
Nickel as Ni	mg/Kg	91	
Zinc as Zn	mg/Kg	290	

cc:

REMARKS:

DIRECTOR

rn= 6796 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.03 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-10, 1425

ANALYTICAL PARAMETERS		
Dichlordifluomethane	ug/Kg	<5
Chloromethane	ug/Kg	<5
Vinyl Chloride	ug/Kg	<5
Bromomethane	ug/Kg	<5
Chloroethane	ug/Kg	<5
Trichlorofluomethane	ug/Kg	<5
1,1 Dichloroethene	ug/Kg	<5
Methylene Chloride	ug/Kg	<5
t-1,2-Dichloroethene	ug/Kg	<5
1,1 Dichloroethane	ug/Kg	<5
2,2-Dichloropropane	ug/Kg	<5
c-1,2-Dichloroethene	ug/Kg	<5
Bromochloromethane	ug/Kg	<5
Chloroform	ug/Kg	<5
111 Trichloroethane	ug/Kg	<5
Carbon Tetrachloride	ug/Kg	<5
1,1-Dichloropropene	ug/Kg	<5
Benzene	ug/Kg	<5
1,2 Dichloroethane	ug/Kg	<5
Trichloroethylene	ug/Kg	9
1,2 Dichloropropane	ug/Kg	<5
Dibromomethane	ug/Kg	<5
Bromodichloromethane	ug/Kg	<5
c-1,3Dichloropropene	ug/Kg	<5
Toluene	ug/Kg	<5

ANALYTICAL PARAMETERS		
t-1,3Dichloropropene	ug/Kg	<5
112 Trichloroethane	ug/Kg	<5
Tetrachloroethene	ug/Kg	<5
1,3-Dichloropropane	ug/Kg	<5
Chlorodibromomethane	ug/Kg	<5
1,2 Dibromoethane	ug/Kg	<5
Chlorobenzene	ug/Kg	<5
Ethyl Benzene	ug/Kg	<5
1112Tetrachloroethan	ug/Kg	<5
m + p Xylene	ug/Kg	<10
o Xylene	ug/Kg	<5
Styrene	ug/Kg	<5
Bromoform	ug/Kg	<5
Isopropylbenzene	ug/Kg	<5
Bromobenzene	ug/Kg	<5
1122Tetrachloroethan	ug/Kg	<5
123-Trichloropropane	ug/Kg	<5
n-Propylbenzene	ug/Kg	<5
2-Chlorotoluene	ug/Kg	<5
135-Trimethylbenzene	ug/Kg	<5
4-Chlorotoluene	ug/Kg	<5
tert-Butylbenzene	ug/Kg	<5
124-Trimethylbenzene	ug/Kg	<5
sec-Butylbenzene	ug/Kg	<5

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
Page 1 of 2.

DIRECTOR

rn= 6797 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.03 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-10, 1425

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
p-Isopropyltoluene	ug/Kg	<5	
1,3 Dichlorobenzene	ug/Kg	<5	
1,4 Dichlorobenzene	ug/Kg	<5	
n-Butylbenzene	ug/Kg	<5	
1,2 Dichlorobenzene	ug/Kg	<5	
Dibromochloropropane	ug/Kg	<5	
124-Trichlorobenzene	ug/Kg	<5	
Hexachlorobutadiene	ug/Kg	<5	
Naphthalene	ug/Kg	<5	
123-Trichlorobenzene	ug/Kg	<5	
ter.ButylMethylEther	ug/Kg	<5	
p-Ethyltoluene	ug/Kg	<5	
Freon 113	ug/Kg	<5	
1245 Tetramethylbenz	ug/Kg!	<5	
Acetone	ug/Kg	<50	
Methyl Ethyl Ketone	ug/Kg	<50	
Methylisobutylketone	ug/Kg	<50	
Chlorodifluoromethan	ug/Kg	<5	
p Diethylbenzene	ug/Kg	<5	
% Solids		70	

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

DIRECTOR

rn= 6798 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO:991112.03 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample, TP-10, 1425
UNITS: ug/Kg

ANALYTICAL PARAMETERS		ANALYTICAL PARAMETERS	
is(2-chloroethyl)ether	<30	2,4-Dinitrotoluene	<30
,3 Dichlorobenzene	<30	Diethyl Phthalate	<30
,4 Dichlorobenzene	<30	4-Chlorophenyl phenyl ether	<30
arbazole	<30	Fluorene	<30
,2 Dichlorobenzene	<30	4-Nitroaniline	<30
is(2-chloroisopropyl)ether	<30	N-Nitrosodiphenylamine	<30
-Nitrosodi-n-propylamine	<30	4-Bromophenyl phenyl ether	<30
exachloroethane	<30	Hexachlorobenzene	<30
itrobenzene	<30	Phenanthrene	<30
sophorone	<30	Anthracene	<30
is(2-chloroethoxy)methane	<30	Di-n-Butyl Phthalate	<30
24-Trichlorobenzene	<30	Fluoranthene	<30
aphthalene	<30	Pyrene	<30
-Chloroaniline	<30	BenzylButylPhthalate	<30
exachlorobutadiene	<30	3,3'-Dichlorobenzidine	<300
-Methylnaphthalene	<30	Benzo(a)anthracene	<30
exachlorocyclopentadiene	<300	Chrysene	<30
-Chloronaphthalene	<30	Bis(2-ethylhexyl)phthalate	<30
-Nitroaniline	<30	Di-n-octyl Phthalate	<30
imethyl Phthalate	<30	Benzo(b)fluoranthene	<30
cenaphthylene	<30	Benzo(k)fluoranthene	<30
,6-Dinitrotoluene	<30	Benzo(a)pyrene	<30
-Nitroaniline	<30	Indeno(1,2,3-cd)pyrene	<30
cenaphthene	<30	Dibenzo(a,h)anthracene	<30
ibenzofuran	<30	Benzo(ghi)perylene	<30

cc:

REMARKS: EPA 8270, Base/Neutral Extractable SVOCs

DIRECTOR

rn= 6799 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.03 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/16/99 RECEIVED:03/17/99

SAMPLE: Soil sample. TP-10. 1425

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	<1	
Barium as Ba	mg/Kg	290	
Cadmium as Cd	mg/Kg	4.2	
Chromium as Cr	mg/Kg	310	
Lead as Pb	mg/Kg	210	
Mercury as Hg	mg/Kg	<0.02	
Selenium as Se	mg/Kg	0.56	
Silver as Ag	mg/Kg	<2	
Copper as Cu	mg/Kg	2000	
Nickel as Ni	mg/Kg	25	
Zinc as Zn	mg/Kg	1300	

cc:

REMARKS:

DIRECTOR

rn= 6800 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.04 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/17/99 RECEIVED:03/17/99

SAMPLE: Water sample, GW-1 (18-22), 1024

ANALYTICAL PARAMETERS		
Dichlordifluomethane	ug/L	<1
Chloromethane	ug/L	<1
Vinyl Chloride	ug/L	7
Bromomethane	ug/L	<1
Chloroethane	ug/L	<1
Trichlorofluomethane	ug/L	<1
1,1 Dichloroethene	ug/L	2
Methylene Chloride	ug/L	<1
t-1,2-Dichloroethene	ug/L	<1
1,1 Dichloroethane	ug/L	2
2,2-Dichloropropane	ug/L	<1
c-1,2-Dichloroethene	ug/L	18
Bromochloromethane	ug/L	<1
Chloroform	ug/L	<1
111 Trichloroethane	ug/L	1
Carbon Tetrachloride	ug/L	<1
1,1-Dichloropropene	ug/L	<1
Benzene	ug/L	<1
1,2 Dichloroethane	ug/L	<1
Trichloroethylene	ug/L	190
1,2 Dichloropropane	ug/L	<1
Dibromomethane	ug/L	<1
Bromodichloromethane	ug/L	<1
c-1,3Dichloropropene	ug/L	<1
Toluene	ug/L	<1

ANALYTICAL PARAMETERS		
t-1,3Dichloropropene	ug/L	<1
112 Trichloroethane	ug/L	<1
Tetrachloroethene	ug/L	8
1,3-Dichloropropane	ug/L	<1
Chlorodibromomethane	ug/L	<1
1,2 Dibromoethane	ug/L	<1
Chlorobenzene	ug/L	<1
Ethyl Benzene	ug/L	<1
1112Tetrachloroethan	ug/L	<1
m + p Xylene	ug/L	<2
o Xylene	ug/L	<1
Styrene	ug/L	<1
Bromoform	ug/L	<1
Isopropylbenzene	ug/L	<1
Bromobenzene	ug/L	<1
1122Tetrachloroethan	ug/L	<1
123-Trichloropropane	ug/L	<1
n-Propylbenzene	ug/L	<1
2-Chlorotoluene	ug/L	<1
135-Trimethylbenzene	ug/L	<1
4-Chlorotoluene	ug/L	<1
tert-Butylbenzene	ug/L	<1
124-Trimethylbenzene	ug/L	<1
sec-Butylbenzene	ug/L	<1

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
Page 1 of 2.

DIRECTOR

rn= 6801 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.991112.04 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/17/99 RECEIVED:03/17/99

SAMPLE: Water sample, GW-1 (18-22), 1024

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
p-Isopropyltoluene	ug/L	<1	
1,3 Dichlorobenzene	ug/L	<1	
1,4 Dichlorobenzene	ug/L	<1	
n-Butylbenzene	ug/L	<1	
1,2 Dichlorobenzene	ug/L	<1	
Dibromochloropropane	ug/L	<1	
124-Trichlorobenzene	ug/L	<1	
Hexachlorobutadiene	ug/L	<1	
Naphthalene	ug/L	<1	
123-Trichlorobenzene	ug/L	<1	
ter.ButylMethylEther	ug/L	<1	
p-Ethyltoluene	ug/L	<1	
Freon 113	ug/L	<1	
1245 Tetramethylbenz	ug/L!	<1	
Acetone	ug/L	<10	
Methyl Ethyl Ketone	ug/L	<10	
Methylisobutylketone	ug/L	<10	
Chlorodifluoromethan	ug/L	<1	
p Diethylbenzene	ug/L	<1	

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

DIRECTOR

rn= 6802 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO:991112.04 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/17/99 RECEIVED:03/17/99

SAMPLE: Water sample, GW-1 (18-22), 1024
UNITS: ug/L

ANALYTICAL PARAMETERS		ANALYTICAL PARAMETERS	
is(2-chloroethyl)ether	<1	2,4-Dinitrotoluene	<1
,3 Dichlorobenzene	<1	Diethyl Phthalate	<1
,4 Dichlorobenzene	<1	4-Chlorophenyl phenyl ether	<1
arbazole	<1	Fluorene	<1
,2 Dichlorobenzene	<1	4-Nitroaniline	<1
is(2-chloroisopropyl)ether	<1	N-Nitrosodiphenylamine	<1
-Nitrosodi-n-propylamine	<1	4-Bromophenyl phenyl ether	<1
exachloroethane	<1	Hexachlorobenzene	<1
itrobenzene	<1	Phenanthrene	<1
sophorone	<1	Anthracene	<1
is(2-chloroethoxy)methane	<1	Di-n-Butyl Phthalate	<1
24-Trichlorobenzene	<1	Fluoranthene	<1
aphthalene	<1	Pyrene	<1
-Chloroaniline	<1	BenzylButylPhthalate	<1
exachlorobutadiene	<1	3,3'-Dichlorobenzidine	<10
-Methylnaphthalene	<1	Benzo(a)anthracene	<1
exachlorocyclopentadiene	<10	Chrysene	<1
-Chloronaphthalene	<1	Bis(2-ethylhexyl)phthalate	2
-Nitroaniline	<1	Di-n-octyl Phthalate	<1
imethyl Phthalate	<1	Benzo(b)fluoranthene	<1
cenaphthylene	<1	Benzo(k)fluoranthene	<1
,6-Dinitrotoluene	<1	Benzo(a)pyrene	<1
-Nitroaniline	<1	Indeno(1,2,3-cd)pyrene	<1
cenaphthene	<1	Dibenzo(a,h)anthracene	<1
ibenzofuran	<1	Benzo(ghi)perylene	<1

cc:

REMARKS: EPA 8270, Base/Neutral Extractable SVOCs

DIRECTOR

rn= 6803 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

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LAB NO:991112.04 04/01/99

C.A. Rich Consultants, Incorporated
404 Glen Cove Avenue
Sea Cliff, NY 11579
ATTN: Richard Izzo

SOURCE OF SAMPLE: Island Estates
COLLECTED BY: Client DATE COL'D:03/17/99 RECEIVED:03/17/99

SAMPLE: Water sample, GW-1 (18-22), 1024
UNITS: mg/L

ANALYTICAL PARAMETERS		ANALYTICAL PARAMETERS
senic as As	0.013	
rium as Ba	0.13	
dmium as Cd	<0.005	
romium as Cr	0.022	
ad as Pb	0.008	
rcury as Hg	<0.00025	
lenium as Se	<0.005	
lver as Ag	<0.001	
ckel as Ni	0.04	
pper as Cu	<0.01	
nc as Zn	0.08	

cc:

REMARKS:

DIRECTOR

n= 6804 NYSDOH ID# 10320

APPENDIX B

Selected Site Photographs

CA RICH CONSULTANTS, INC

PHOTO 1

Collar of former drain located at test pit (TP-6D).

PHOTO 2

Cement brick wall of former drain on west side of test pit (TP-6D).

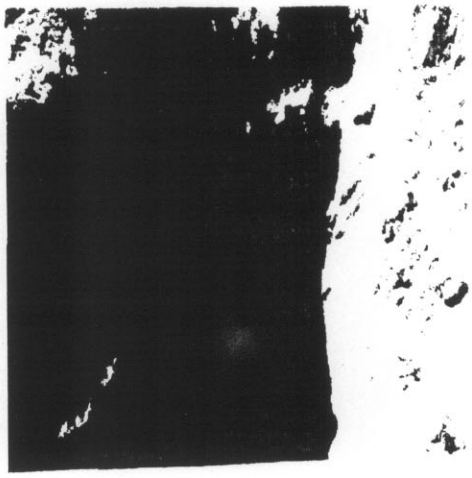
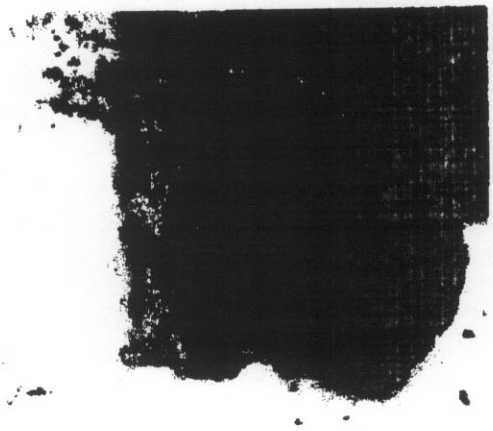


PHOTO 3

Test pit TP-6D after the removal of former drain.

PHOTO 4

Contaminated material excavated from approximately 15 ft. below the surface of test pit TP-6D.



CA RICH CONSULTANTS, INC

PHOTO 5

Bottom of test pit TP-6A at the ground water interface.

PHOTO 6

Ceramic pipe exposed during the excavation of test pit TP-6E.

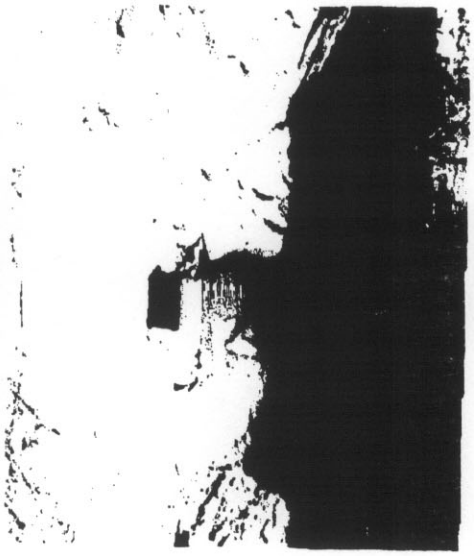


PHOTO 7

***Material encountered approximately 2-3 feet* below the surface at test pit TP-10.**

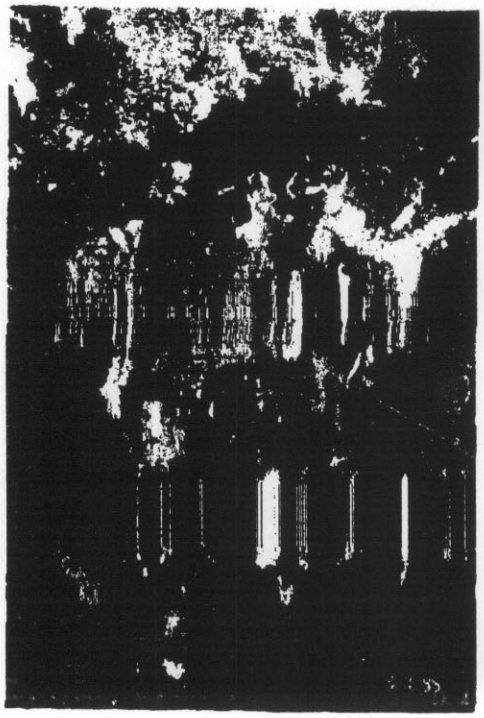


PHOTO 8

***Dome of manhole removed during the* excavation of test pit TP-11.**