GROUNDWATER MONITORING AND PRODUCT RECOVERY PROGRESS REPORT FOR ARATEX SERVICES, INC. 330 CHESTNUT STREET OAKLAND, CALIFORNIA

May 94

PREPARED FOR
ARATEX SERVICES, INC.
SCHAUMBURG, ILLINOIS

PREPARED BY
RMT, INC.
MARINA DEL REY, CA

MAY 1994

James W. Van Nortwick, Jr., Ph.D., P.E.
Project Manager

RMT, INC. — LOS ANGELES
4640 ADMIRALTY WAY SUITE 301
MARINA DEL REY, CA 90292-6621
310/578-1241 310/821 3280 FAX

May 19, 1994

Ms. Jennifer Eberle
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

RE: Quarterly Groundwater Monitoring Report
and Product Recovery Progress Report
Aratex Services, Inc.
330 Chestnut Street, Oakland, California

Dear Ms. Eberle:

This letter transmits the results of the groundwater monitoring and remedial activities conducted on April 28, 1994, at the referenced facility.

As you may note, the presence of petroleum hydrocarbons (i.e., BTEX and TPH-D) has not been identified in the groundwater samples collected from any of the monitoring wells since May 1993. However, the quantity of free product recovered during this period, when compared to previous periods, has increased.

If you have any questions regarding this report, please feel free to contact me at (310)578-1241, or Bob Robbins at (608)592-3222.

Sincerely,

James W. Van Nortwick, Jr., Ph.D., P.E.
Project Manager

enc: Quarterly Groundwater Monitoring Report

cc: Robert J. Robbins, C.P.G.
Phillip J. Krejci
File: 516/Tanks

RMT, INC. — LOS ANGELES
4640 ADMIRALTY WAY • SUITE 301
MARINA DEL REY, CA • 90292-6621
310/578-1241 • 310/821-3280 FAX

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Section 1
INTRODUCTION

1.1 Background

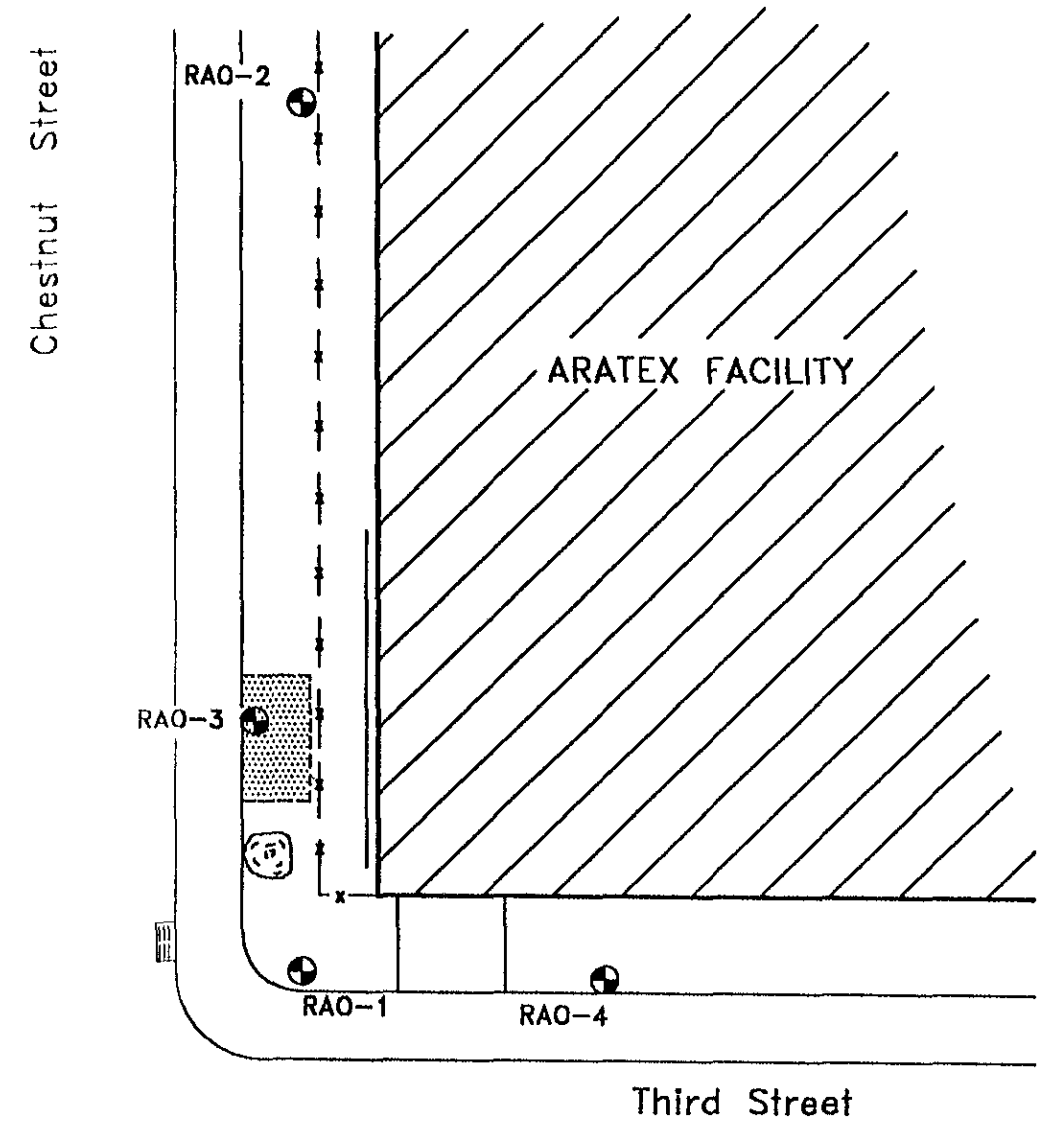
Aratex Services, Inc., (ARATEX) owns and operates an industrial laundry facility located at 330 Chestnut Street in Oakland, California. A 2,000-gallon underground diesel fuel storage tank was formerly maintained at this facility to supply fuel for the operation of a boiler. The diesel fuel storage tank was removed from the facility in December 1988, and a tank closure documentation report was submitted to the Alameda County Health Care Services Agency (ACHCSA). Based on the information presented in the tank documentation report, the ACHCSA requested that ARATEX conduct post-closure sampling activities to determine whether the soil and groundwater surrounding the underground storage tank had been impacted by petroleum hydrocarbons. Remedial investigation activities were conducted by RMT from March 1989, through November 1992, and included the advancement of soil borings and groundwater monitoring wells in the vicinity of the former excavation area. The results of chemical analyses performed on groundwater samples collected from monitoring wells RAO-1, RAO-2, RAO-4, during the period from November 1992 through May 1993 did not identify the presence of petroleum hydrocarbons; however, groundwater sampling activities conducted in May 1993, identified the presence of benzene, toluene, and xylenes in groundwater samples collected from monitoring wells RAO-1, and RAO-2. A site plan showing the location of the monitoring wells is presented in Figure 1.

Because the results of the sampling activities indicated that the extent of petroleum hydrocarbon contamination was limited to the area immediately surrounding the former tank excavation and free-product was consistently observed in the groundwater monitoring well located within the former underground storage tank excavation, a product recovery canister was installed in December 1992. To date, the product recovery system has recovered approximately 3,000-mL of free-product.

1.2 Purpose and Scope

The purpose of this report is to summarize the results of the groundwater monitoring activities conducted on October 13, 1993, at the ARATEX facility. The scope of work conducted during the groundwater investigation included the following:

- The purging and sampling of three groundwater monitoring wells, and
- The chemical analyses of groundwater samples for the presence of BTEX using EPA SW-846 Method 8020 and TPH-D using EPA SW-846 Method 8015 modified to detect diesel fuel compounds (California LUFT method).



Legend :

RAO-x Ground Water Monitoring Well : RMT 6/88

Bldg.

Estimated limits of Dec.1988 Tank Removal and backfill

Fence, 6-Foot high chain link

0 10 20

SCALE 1"=20'

SITE PLAN

Aratex Services, Inc.
330 Chestnut Street
Oakland, Ca

RMT INC.

DWN. BY:	RAS
DATE:	FEB., 1994
PROJ.#	12013.10
FILE #	1004

FIGURE 1

Section 2
GROUNDWATER MONITORING ACTIVITIES

Groundwater sampling activities were conducted on April 28, 1994, and included obtaining static water level measurements and groundwater samples from monitoring wells RAO-1, RAO-2, and RAO-4. Groundwater samples were not collected from monitoring well RAO-3 which is currently being utilized for product recovery.

2.1 Static Water Level Measurements

Prior to collecting groundwater samples, the depth to groundwater was measured in each monitoring well using an electronic water level indicator. Three rounds of groundwater heights were taken to assess any variability in measurement.

2.2 Groundwater Sample Collection

Groundwater samples were collected from monitoring wells RAO-1, RAO-2, and RAO-4. Prior to sampling, each monitoring well was purged using a bailer. A minimum of three well casing volumes (casing and sand pack volume) were extracted from each well before collecting groundwater samples. The temperature, pH, and conductivity of the extracted groundwater was measured and recorded at least once per well casing volume. The well casing volume was determined by measuring and recording the static water level and calculating the well volume. The purging bailer was decontaminated between each sampling event by rinsing with tap water to remove particulates, washing with a tri-sodium phosphate solution, and rinsing with deionized water.

After each monitoring well had recharged to within 80 percent of its pre-purge volume (approximately 15-min) groundwater samples were collected utilizing a disposable Teflon bailer equipped with a teflon stopcock, and dispensed directly into 40-mL borosilicate vials with teflon septa and screw caps. All samples were preserved using hydrochloric acid and stored on ice pending transport to a commercial independent California-certified laboratory according to USEPA protocol, including chain-of-custody procedures. Groundwater sample collection data are presented in Table 1.

2.3 Groundwater Flow

Static water level measurements and groundwater elevations for January 29, 1994, are summarized in Table 2 and the potentiometric surface generated from the water level data is presented in Figure 2. The groundwater flow direction is southwest with a gradient of approximately 0.0062-ft/ft.

TABLE 1

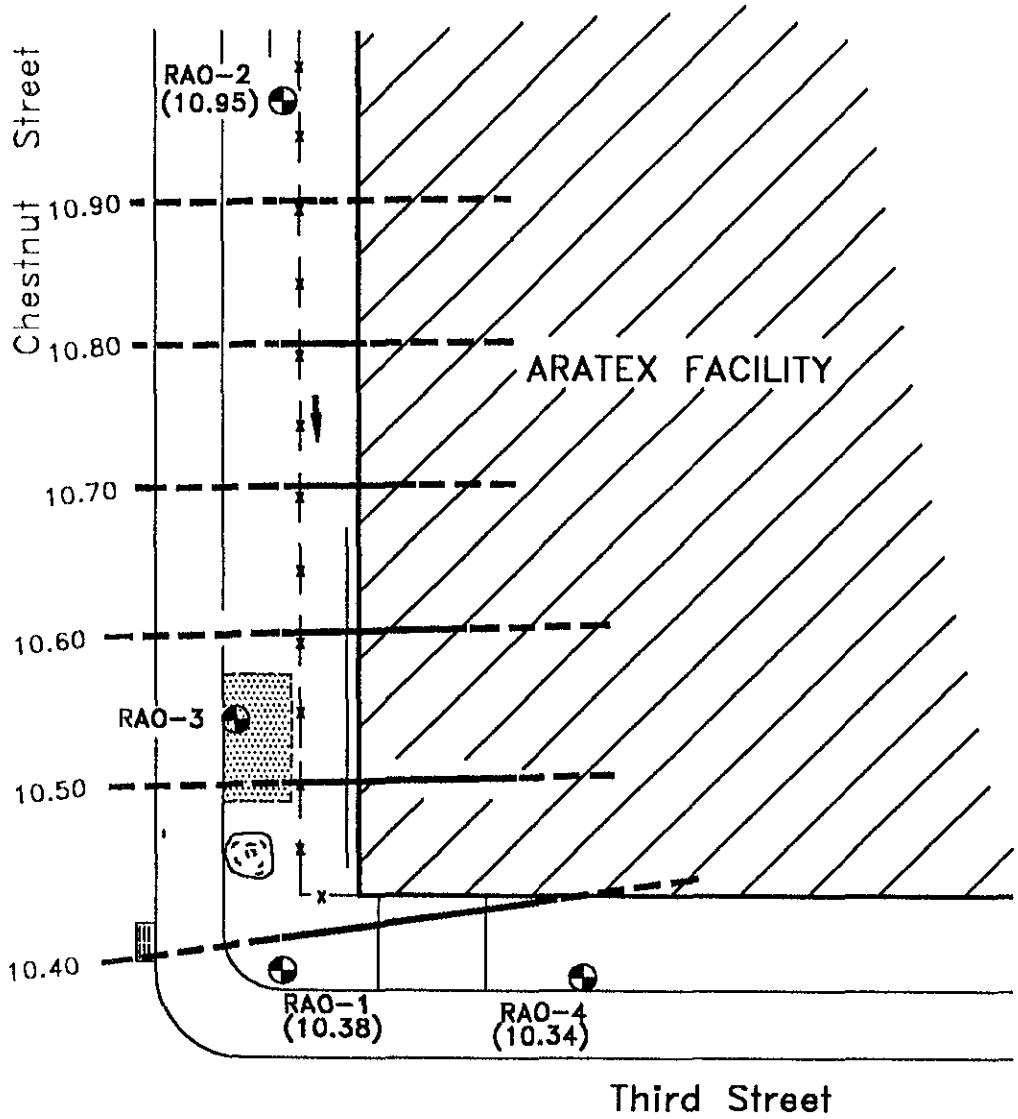
Groundwater Sample Collection Data, January 29, 1994

Time	Gallons Purged (cummulative)	Temperature (°F)	Conductivity	pH
Groundwater Monitoring Well RAO-1 (One Well Casing Volume = 2.19 Gallons)				
10:10 am	2	63.2	1.80	6.87
10:12 am	4	63.8	1.83	6.85
10:15 am	6	64.3	1.85	6.81
Groundwater samples collected at 12:45 pm				
Groundwater Monitoring Well RAO-2 (One Well Casing Volume = 1.95 Gallons)				
9:45 am	2	63.2	1.55	7.38
9:50 am	4	64.5	1.53	7.05
9:55 am	6	64.3	1.53	6.99
Groundwater samples collected at 11:45 am				
Groundwater Monitoring Well RAO-4 (One Well Casing Volume = 7.66 Gallons)				
10:35 am	2.0	63.9	1.57	7.25
10:40 am	5.0	66.5	1.61	7.05
10:45 am	8.0	66.5	1.67	6.80
Groundwater samples collected at 12:15 pm				

TABLE 2

Static Water Level Measurement, January 29, 1994

Monitoring Well Location	TOC Elevation (ft above MSL)	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)
RAO-1	19.08	8.70	10.38
RAO-2	19.57	8.62	10.95
RAO-4	19.30	8.96	10.34
TOC = Top of casing MSL = Mean sea level			



Legend :

RAO-x	Ground Water Monitoring Well ; RMT 6/88
	Bldg.
	Estimated limits of Dec.1988 Tank Removal and backfill
	Fence, 6-Foot high chain link
(10.62)	GROUNDWATER ELEVATION, IN FEET ABOVE MEAN SEA LEVEL.
10.62	GROUNDWATER ELEVATION CONTOUR, IN FEET ABOVE MEAN, SEA LEVEL. (DASHED WHERE INFERRED)
	Estimated direction of groundwater flow

Note:

Estimated gradient = 0.0062 ft./ft.

0 10 20
SCALE: 1"=20'

GROUNDWATER CONTOUR MAP
FOR
APRIL, 1994

Aratex Services, Inc.
330 Chestnut Street
Oakland, Ca

RMT INC.

DWN. BY:	RAS
DATE:	MAY, 1994
PROJ.#	12013.10
FILE #	1005

FIGURE 2

2.4 Chemical Analyses of Groundwater

Groundwater samples collected from each monitoring well were analyzed for the presence of BTEX using EPA SW-846 Method 8020 and TPH-D using EPA SW-846 Method 8015 modified to detect diesel fuel compounds (California LUFT method). The analytical results of the groundwater samples collected from wells surrounding the recovery well indicate that the product is not migrating. The results of the laboratory analyses are presented in Table 3 and copies of the laboratory report and chain-of-custody documentation are included in Appendix A. The laboratory analyses were performed by Curtis & Tompkins, Ltd., Analytical Laboratory, California.

2.5 Disposal of Purged Groundwater

Groundwater extracted during monitoring well purging activities was contained in 55-gal DOT-approved drums, labeled with the date, generator's name, site location, source, and stored in a secured area pending characterization and disposal. A copy of the disposal manifest is provided in Appendix C.

TABLE 3

Chemical Analyses of Groundwater

Sample Location	Sampling Date	Parameter (µg/L)				
		Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D
RAO-1	04/28/94	<0.5	<0.5	<0.5	<0.5	<50
	01-29-94	<1.0	<1.0	<1.0	<1.0	<50
	11-11-93	<0.5	<0.5	<0.5	<0.5	<50 (a)
	08-02-93	<0.3	<0.3	<0.3	<0.5	<10
	05-11-93	0.4	0.5	<0.3	1.0	<10
	02-19-93	<0.3	<0.3	<0.3	<0.6	<100
	11-02-92	<0.3	<0.3	<0.3	<0.5	<10
RAO-2	04/28/94	<0.5	<0.5	<0.5	<0.5	<50
	01-29-94	<1.0	<1.0	<1.0	<1.0	<50
	11-11-93	<0.5	<0.5	<0.5	<0.5	<50 (a)
	08-02-93	<0.3	<0.3	<0.3	<0.5	<10
	05-11-93	0.4	1.0	<0.3	1.0	56
	02-19-93	<0.3	<0.3	<0.3	<0.6	<100
	11-02-92	<0.3	<0.3	<0.3	<0.5	<10
RAO-4	04/28/94	<0.5	<0.5	<0.5	<0.5	<50
	01-29-94	<1.0	<1.0	<1.0	<1.0	<50
	11-11-93	<0.5	<0.5	<0.5	<0.5	<50 (a)
	08-02-93	<0.3	<0.3	<0.3	<0.5	<10
	05-11-93	<0.3	<0.3	<0.3	<0.5	<10
	02-19-93	<0.3	<0.3	<0.3	<0.6	<100
	11-02-93	<0.3	<0.3	<0.3	<0.5	840

a- This sample was analyzed for TPH as gasoline

Section 3
PRODUCT RECOVERY ACTIVITIES

During groundwater monitoring activities conducted from March 1990, through November 1992, the presence of a free-product layer was identified in monitoring well RAO-3, located within the former underground storage tank excavation area. In December 1992, a product recovery system, consisting of a removable canister (a buoy sheathed by a semi-permeable hydrophobic membrane atop a product storage sump) was installed in monitoring well RAO-3. During the period from December 1992 through January 1994, approximately 3,027-mL of free-product was recovered. Product recovery activities conducted in May 1994 recovered a total of 1,976-mL of free product, bringing the total quantity recovered to approximately 5,003-mL. In addition to the product recovery activities conducted during this quarter, 18-gallons of water were purged from the recovery well to ensure efficient product recovery. A summary of the product recovery operations is presented in Appendix B.

APPENDIX A
LABORATORY REPORT

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

RMT, Inc.
4640 Admiralty Way
Suite 301
Marina Del Rey, CA 90292

Date: 11-MAY-94
Lab Job Number: 115408
Project ID: 12013.10
Location: Redstar

Reviewed by: Teresa K Morris

Reviewed by: Kathy Bl

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 115408
CLIENT: RMT, INC.
PROJECT ID: 12013.10
LOCATION: R.A.S

DATE SAMPLED: 04/28/94
DATE RECEIVED: 04/28/94
DATE EXTRACTED: 05/09/94
DATE ANALYZED: 05/09,10/94
DATE REPORTED: 05/11/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT (ug/L)
115408-1	RAO-1	ND	ND	50
115408-2	RAO-2	ND	ND	50
115408-3	RAO-4	ND	ND	50

ND = Not detected at or above reporting limit. Reporting limit applies to all analytes.

QA/QC SUMMARY:

RPD, %	4
RECOVERY, %	55

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 115408
CLIENT: RMT, INC.
PROJECT ID: 12013.10
LOCATION: R.A.S

DATE SAMPLED: 04/28/94
DATE RECEIVED: 04/28/94
DATE ANALYZED: 05/04/94
DATE REPORTED: 05/11/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)
115408-1	RAO-1	ND	ND	ND	ND	0.5
115408-2	RAO-2	ND	ND	ND	ND	0.5
115408-3	RAO-4	ND	ND	ND	ND	0.5
115408-4	TRIP BLANK	ND	ND	ND	ND	0.5

ND = Not detected at or above reporting limit.

Reporting Limit applies to all analytes.

QA/QC SUMMARY

RPD, %	<1
RECOVERY, %	98

RMT INC.
LABORATORIES

F-268 (R2/92)
(Use Black Ink Only)

Madison, WI 53717
744 Heartland Trail
Phone (608) 831-4444
FAX (608) 831-7530

Santa Monica, CA
Atlanta, GA
Baton Rouge, LA
Troy, MI

Grand Ledge, MI
Nashville, TN

Greenville, SC
Schaumburg, IL

Dublin, OH
Waukesha, WI

CHAIN OF CUSTODY RECORD

№ 045146

Bottles Prepared by	Date/Time
R. A. S.	4-28-94

Project No	Client
12013.10	Tri-Star

Code: A - None, B - HNO_3, C - H_2SO_4, D - NaOH, E - HCl, F - ____

Filtered (Yes/No)
Preserved (Code)

RMT Lab NO	Yr 94 Date	Time	Sample Station ID	Total Number Of Containers	Container Inventory: BTEX	TPH-D						MATRIX	Comments:
RAO-1	4/28			3	X	X							Standard
RAO-2	4/28			3	X	X							Turn-A-Round
RAO-4	4/28			3	X	X							
TRIP BLANK													- also received 4/28
													Analyze TRIP for BTEX only
													per Tom Travis. 4/29 [illegible]

SAMPLER Relinquished by (Sig.) ①	Date/Time	Received by (Sig.) ② Shipper Name & #	Date/Time
[signature]	4-28 1200	[signature]	4/28/94 1345
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤	Date/Time	Received by (Sig.) ⑥ Shipper Name & #	Date/Time

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp ______
Receipt pH ______

Custody Seal Present/Absent Seal Intact/Not Intact Seal #'s

APPENDIX B
PRODUCT RECOVERY OBSERVATIONS

APPENDIX B

Product Recovery Observations

Sampling Date	Volume of Product Removed (mL)	Volume of Water Removed (mL)	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Thickness of Product (ft)
12-03-92	trace	20	8.65	8.67	0.02
12-04-92	0	0	8.61	8.63	0.02
12-08-92	18	0	8.52	8.52	0.00
12-09-92	10	0	8.24	8.24	0.00
12-10-92	0	3	8.02	8.02	0.00
12-14-92	30	200	8.28	8.29	0.01
12-15-92	trace	0	8.32	8.32	0.00
12-16-92	trace	0	8.52	8.52	0.00
12-18-92	18	0	8.63	8.66	0.03
12-21-92	10	0	8.39	8.42	0.03
12-22-92	20	30	8.56	8.58	0.02
12-23-92	18	0	8.35	8.37	0.02
12-24-92	22	0	8.42	8.53	0.11
12-28-92	15	0	8.53	8.64	0.01
12-29-92	20	0	8.58	8.60	0.02
12-30-92	18	0	8.22	8.24	0.02
01-04-93	23	18	8.45	8.47	0.02
01-05-93	12	0	8.28	8.30	0.02
01-06-93	10	0	8.05	8.48	0.43
01-07-93	8	0	8.64	8.66	0.02
01-08-93	3	10	8.36	8.37	0.01
01-11-93	8	0	8.02	8.16	0.14
01-12-93	13	8	7.68	8.06	0.38
01-13-93	45	0	7.64	8.04	0.40
01-14-93	40	0	8.00	8.32	0.32
01-15-93	40	0	7.98	8.30	0.32
01-18-93	48	0	8.00	8.11	0.11
01-19-93	50	0	8.00	8.22	0.22
01-20-93	44	0	8.00	8.02	0.02

Product Recovery Observations (Continued)

Sampling Date	Volume of Product Removed (mL)	Volume of Water Removed (mL)	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Thickness of Product (ft)
01-21-93	5	40	7.84	8.00	0.16
01-22-93	450	42	7.74	7.98	0.24
02-04-93	25	500*	7.99	8.45	0.46
03-25-93	380	70	8.11	8.20	0.09
04-09-93	500	18	8.11	8.20	0.09
04-23-93	210	60	7.49	7.51	0.02
05-03-93	560	90	8.54	8.58	0.04
05-11-93	38	114	8.35	8.45	0.10
05-20-93	1	0	8.39	8.42	0.03
06-02-93	5	65	8.37	8.41	0.04
06-18-93	100	0	8.46	8.57	0.14
07-09-93	150	0	8.20	8.25	0.05
11-11-93	40	80	7.98	7.91	0.07
12-10-93	20	25	8.62	8.59	0.03
01-29-94	0	0	8.76	8.76	0.00
03-10-94	0	0	8.63	8.63	0.00
05-3-94	1,976	658	8.93	9.15	0.22
Total to Date	**5,003**	**2,051**			

*Valve on bottom of canister left open.

they forgot April + Feb.

APPENDIX C

WASTE DISPOSAL MANIFESTS

State of California - Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12 pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD 1 3 0 3 1 4 2 4 8
Manifest Document No.: 6 3 6 9 3
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
ACATEX SERVICES, INC.
330 CHESTNUT STREET
OAKLAND, CALIFORNIA 94607

4. Generator's Phone (415) 835-9215

A. State Manifest Document Number: 92063693

B. State Generator's ID: 011439

5. Transporter 1 Company Name: ROMIC CHEMICAL CORPORATION
6. US EPA ID Number: CAD009452657

C. State Transporter's ID

D. Transporter's Phone (415)324-1638

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
ROMIC CHEMICAL CORPORATION
2081 BAY ROAD
EAST PALO ALTO, CA 94303

10. US EPA ID Number: CAD009452657

G. State Facility's ID: CAD009452657
H. Facility's Phone (415)324-1638

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. HAZARDOUS WASTE, LIQUID, N.O.S. ORM-E NA 9189 (D018)	002	DM	110	G	State: 134; EPA/Other: D018
b.					State: ; EPA/Other:
c.					State: ; EPA/Other:
d.					State: ; EPA/Other:

J. Additional Descriptions for Materials Listed Above
WELL WATER W/ HYDROCARBON
[illegible]

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
PROFILE # 010685
Gloves, Goggles, and Protective Clothing. LEG # 31

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the 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 federal, state and international laws.

If I am a large quantity generator, I 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 that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] | Signature: [illegible] | Month Day Year: [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: C.D. Burris | Signature: C.D. Burris | Month Day Year: 07 20 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

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: John Butler/Ray Borowske | Signature | Month Day Year

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

92063693

DTSC 8022A (12/91)
EPA 8700-22