REMEDIATION SERVICE, INT'L.
2060 KNOLL DRIVE, SUITE 200, VENTURA, CALIFORNIA 93003
(805) 644-5892 • FAX (805) 654-0720

Jue
6/27/94

ALCO
HAZMAT
94 JUN 20 PM 4:34

June 13, 1994

Ms. Eva Chu, Haz. Mat. Specialist
Alameda County Health Care Service
Department of Environmental Health
80 Swan Way, Rm. 200
Oakland, CA 94621

Re: 2008 First Street
Livermore, California

Dear Ms. Chu:

Enclosed is the most recent Quarterly Monitoring Report for the real property located at 2008 First Street in Livermore, California.

Please contact Mr. Richard W. Pilat at RSI if you have any questions regarding this report.

Sincerely,

Heather Davis
Remediation Service, Int'l.

cc: Mr. John Rutherford
Desert Petroleum, Inc.

Mr. Sumadhu Arigala
RWQCB, San Francisco Bay Area
2101 Webster St., Suite 500
Oakland, CA 94612

enclosure

RSI REMEDIATION SERVICE, INT'L.
2060 KNOLL DRIVE, SUITE 200, VENTURA, CALIFORNIA 93003
(805) 644-5892 • FAX (805) 654-0720

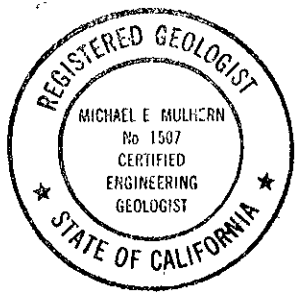
QUARTERLY MONITORING REPORT

for

2008 FIRST STREET
LIVERMORE, CALIFORNIA

Prepared for:
DESERT PETROLEUM
P.O. Box 1601
Oxnard, CA 93032
(805) 644-6784

Prepared by:
RSI - REMEDIATION SERVICE, INT'L
2060 Knoll Drive, Suite 200
Ventura, CA 93003
(805) 644-5892



Michael Mulhern
E.G. #1507

June 3, 1994

TABLE OF CONTENTS

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring for the real property located at 2008 First Street, Livermore, Alameda County, California (Figure 1). The site is currently occupied by a retail gasoline station operating under the British Petroleum trade name. Site improvements include three underground storage tanks, two pump islands and an office/garage building (Figure 2).

A site assessment conducted in February, 1988 indicated that both soil and groundwater contained elevated concentrations of petroleum hydrocarbons. In September, 1988, one groundwater monitoring well was installed northwest of the tank locations.

2.0 GROUNDWATER MONITORING

2.1 Groundwater Monitoring Procedures

On May 22, 1994, groundwater monitoring well MW-1 was measured for depth to groundwater, purged and sampled. The well was measured to an accuracy of 0.01 feet and the measuring point was the top of the well casing. The well was purged with a clean Rediflo pump and sampled. Purging continued until temperature, electrical conductivity and pH stabilized and three well volumes had been removed. The purged water was monitored for temperature, conductivity and pH. These measurements, along with all other pertinent data were recorded on a Water Sample Log (Appendix A). The purged water was placed in a 55 gallon DOT drum which was sealed, labeled as pending laboratory analysis and stored on site.

The well was allowed to recharge to a minimum of 80% of initial static water level and a sample was collected with a disposable bailer. The sample was placed in four 40-milliliter VOA vials which were labeled and placed blue ice for transportation to Coast to Coast Analytical, a state certified laboratory. All samples were analyzed for total petroleum hydrocarbons as gasoline (TPH) using EPA Method 8015M, and benzene, toluene, ethyl-benzene and total xylenes (BTEX) using EPA Method 8020. The laboratory reports for Water Sample Analyses are included in Appendix B.

2.2 Groundwater Monitoring Results

The depth to groundwater in MW-1 was 33.57 feet on May 22, 1994. Because only one groundwater monitoring well is present at the site, the direction of groundwater flow and gradient cannot be determined.

As reported on Table 2, the water sample collected from MW-1 contained a TPH concentration of 10,000 µg/L. BTEX concentrations of 690 µg/L benzene, 1,100 µg/L toluene, 340 µg/L ethyl benzene and 1200 µg/L, total xylenes were also detected in the sample.

The concentration of benzene exceeds the maximum contaminant level (MCL) for drinking water as per Title 22 of the California Code of Regulations (CCR). However, the concentrations of ethylbenzene and total xylenes are below the MCL. Appendix B contains the lab report and chain of custody.

3.0 LIMITATIONS

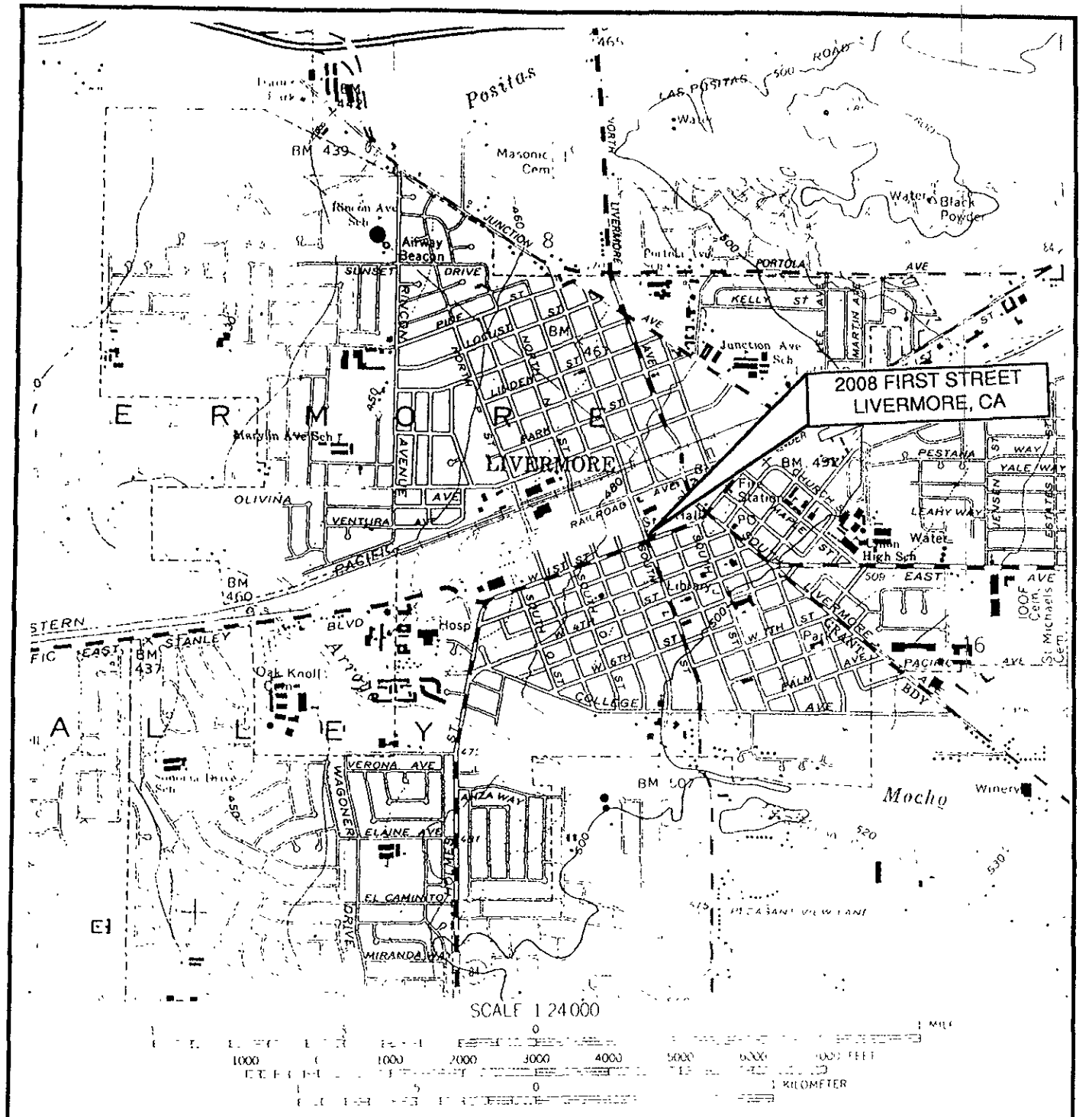
The discussion, conclusion and any recommendations presented in this report are based on the professional performance of the personnel who conducted the investigations, the observations of the field personnel, the results of laboratory analyses performed by a state certified laboratory, any referenced documents and our understanding of the regulations of the State of California and any other applicable local regulations.

Variations in the soil and groundwater conditions may exist beyond the points explored in this investigation.

The services performed by Remediation Service, Int'l have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the State of California.

Please note that contamination of soil and/or groundwater must be reported to the appropriate agencies in a timely manner. No other warranty, expressed or implied, is made.

FIGURES



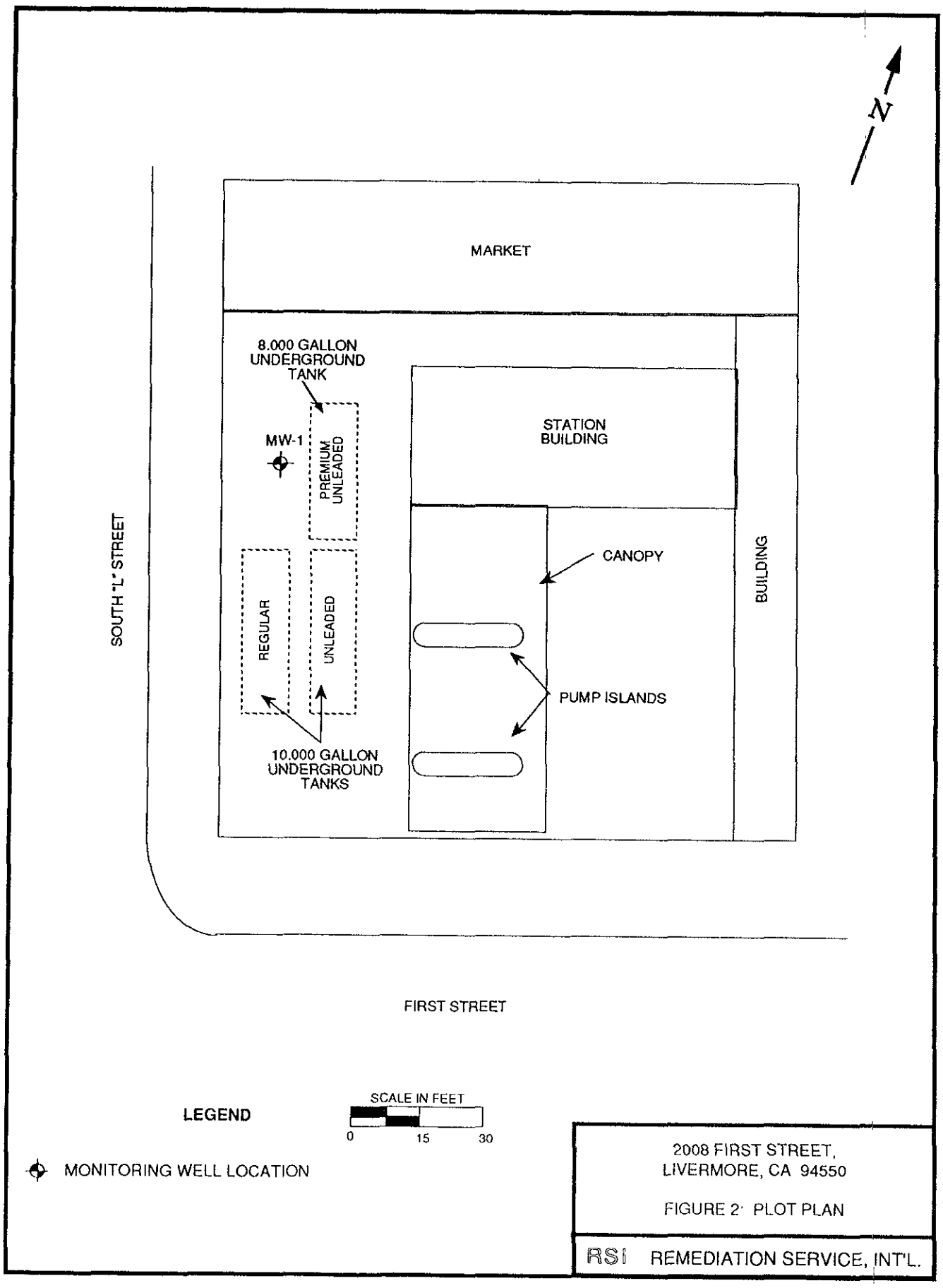
FROM U.S.G.S. 7.5' TOPOGRAPHIC QUADRANGLE "LIVERMORE, CALIFORNIA," 1961, PHOTOREVISED 1980

N

2008 FIRST STREET,
LIVERMORE, CA

FIGURE 1: LOCATION MAP

RSI - REMEDIATION SERVICE, INT'L



2008 FIRST STREET,
LIVERMORE, CA 94550

FIGURE 2· PLOT PLAN

RSI REMEDIATION SERVICE, INT'L.

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA

2008 FIRST STREET
LIVERMORE, CA

Measurements are in feet.

Well	Date Measured	Depth to Water*	Well Head Elevation*	Water Table Elevation*	Change in Elevation
MW-1	9/22/88	60.50	487.00	426.50	
	8/2/90	43.10		443.90	17.40
	10/10/91	66.39		420.61	-23.29
	1/8/92	68.72		418.28	-2.33
	5/11/93	34.76		452.24	33.96
	9/21/93	38.70		448.30	-3.94
	5/22/94	33.57		453.43	5.13

*Elevations are in feet above mean sea level.

REMEDIATION SERVICE, INT'L.

TABLE 2
SUMMARY OF LABORATORY ANALYSIS OF GROUNDWATER

2008 FIRST STREET
LIVERMORE, CA

Concentrations are in µg/L (parts per billion)

WELL #	DATE SAMPLED	TPH	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES
MW-1	8/2/90	24,000	1,300	1,300	400	2,700
	10/10/91	2,200	430	170	100	290
	1/8/92	1,200	200	120	30	150
	5/11/93	960	66	8	41	90
	9/21/93	1,900	311	118	33.8	112
	5/22/94	10,000	690	1100	340	1200
Title 22 CCR MCL		—	1	—	680	1,750

TPH = Total petroleum hydrocarbons (gasoline)

REMEDIATION SERVICE, INT'L.

APPENDICES

APPENDIX A

WATER SAMPLE LOG

WATER SAMPLE LOG

DATE: 5/22/94

LOCATION: 2008 First Street, Livermore, CA.

WELL NUMBER: **MW-1**

WEATHER CONDITIONS: Sunny, clear

FIELD OBSERVATIONS: Lock & well cover are in need of replacement.

TOTAL DEPTH OF WELL: 76.65 feet
DEPTH TO FREE PRODUCT: NONE
DEPTH TO WATER: 33.57 feet
DEPTHS MEASURED FROM: Top of well casing, north side.

CASING DIAMETER: 2 inches
ONE WELL VOLUME = 33.7 gallons
PURGING METHOD: Rediflo pump

WELL PURGING DAT

Time	Discharge (gallons)	pH	Temp in F.	Specific Conductance (µmhos/cm)	Comments
12:05	2.7	8.84	71.2	0.81	Tan/grey, no HC odor, silty
12:07	8.2	8.63	69.8	0.71	Tan/grey, no HC odor, silty
12:09	13.7	8.63	67.7	0.85	Tan/grey, no HC odor, silty
12:12	21.9	8.66	68.2	0.68	Tan/grey, no HC odor, silty
12:14	27.4	8.69	67.9	0.68	Tan/grey, no HC odor, silty
12:16	32.9	8.71	67.9	0.67	Lt. tan, no HC odor, silty
12:17	35.7	8.68	68.0	0.67	Lt. tan, no HC odor, silty
12:18	38.4	8.68	67.7	0.65	Lt. tan, no HC odor, silty

TOTAL DISCHARGE: 38.4 gallons
WELL VOLUMES REMOVED: 1.1

TIME SAMPLE COLLECTED: 12:30 PM
DEPTH TO WATER AT TIME OF SAMPLE: 33.99 feet
PERCENT RECHARGE: 99
METHOD OF SAMPLE COLLECTION: Disposable Bailer
APPEARANCE OF SAMPL: Tan, no product odor
AMOUNT AND SIZE OF SAMPLE CONTAINERS: 4 x 40 ML VOA's
SAMPLE TRANSPORTED TO: Coast to Coast Analytical

SAMPLED BY: D. W.

REMEDIATION SERVICE, INT'L.
2060 KNOLL DR SUITE 200 VENTURA, CA 93003
(805) 644-5892 • FAX (805) 654-0720

APPENDIX B

LABORATORY REPORT
AND
CHAIN OF CUSTODY

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

CLIENT: Rick Pilat
R.S.I.
2060 Knoll Drive, Suite 200
Ventura, CA 93003

Lab Number : JK-1651-1
Project : DP795

Analyzed : 05/31/94
Analyzed by: CB
Method : EPA 8020/8015M

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	RECEIVED
MW-1	Groundwater	John Jensen	05/22/94	05/23/94

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
BTEX + TPH (Gasoline)				1
Benzene		10.	690.	
Toluene		10.	1100.	
Ethylbenzene		10.	340.	
Xylenes		10.	1200.	
Total Petroleum Hydrocarbons (Gasoline)		1000.	10000.	
Percent Surrogate Recovery			104.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)

06/01/94
GC2-531B313
DT/eta3(dw)/cb
W-BTX-053194

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Dudley Torres
Organics Manager

COAST - TO - COAST ANALYTICAL SERVICES

4765 Calle Quetzal • Camarillo, CA 93012 • (805) 389-1353 FAX (805) 389-1438
7726 Moller Rd. • Indianapolis, IN 46268 • (317) 875-5894 FAX (317) 872-6189
2059 Junction Ave. • San Jose, CA 95131 • (408) 955-9077 FAX (408) 955-9078
141 Suburban Road • San Luis Obispo, CA 93401 • (805) 547-3888 FAX (805) 543-2685
2400 Cumberland Dr. • Valparaiso, IN 46383 • (219) 464-2389 FAX (219) 462-2953
340 County Road No. 5 • Westbrook, ME 04092 • (207) 874-2400 FAX (207) 775-4029

Chain of Custody

• PLEASE PRINT IN PEN

Client RSI | Contact | Phone # (805) 644-5892 | FAX # ( ) 654-0722

Address 2600 Knoll Dr. Ste. 200 City Ventura State CA Zip 93003

Project Name/Number DP 795 Project MGR [illegible]

Bill (If different than above) Address

Sampler (Print and sign) John Jensen [signature] | Due Date | Circle for RUSH* | Copies To: | Auth. Init.

Sample Description	Date/Time Coll'd	*Matrix	# of Containers	Pres	Filt. y/n	* Subject to Availability Analysis	Remarks	Lab ID #
MW-1	5/22/94	GW	4	HCL	N	8015g / 8020 BTEX		[illegible]

Relinquished By	Date/Time	Received By	Relinquished By	Date/Time	Received By
John Jensen [signature]	5/23/94 2:35	[illegible signature]			

FOR LAB USE ONLY

Shipping Method	Shipping #	Received By	Date/Time	Condition (See Remarks) Cold	Sealed	Intact
[illegible]		[illegible]	[illegible]	✓		✓

REMARKS [illegible handwriting]

* Matrix:
- DW - Drinking Water
- WW - Wastewater
- GW - Groundwater
- SW - Surface Water
- IM - Impinger
- FI - Filter
- FP - Free Product
- A/G - Air/Gas
- SL - Sludge/Soil/Solid
- OT - Other