

**RSI**  
**REMEDATION SERVICE, INT'L.**

2060 KNOLL DRIVE, SUITE 200, VENTURA, CALIFORNIA 93003  
(805) 644-5892 • FAX (805) 654-0720

December 20, 1993

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

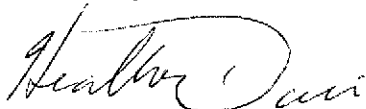
Subject: Desert Petroleum Station #796  
2844 Mountain Blvd.  
Oakland, California 94602

Dear Mr. Seto:

Enclosed is the most recent Groundwater Monitoring Report for Desert Petroleum's Station No. 796, located in Oakland, California.

Please call Mr. Rick Pilat at RSI<sup>or</sup> me if you have any questions regarding this report.

Sincerely,



Heather Davis  
Remediation Service, Int'l.

cc: John Rutherford  
Desert Petroleum

enclosure



2060 KNOLL DRIVE, SUITE 200, VENTURA, CALIFORNIA 93003  
(805) 644-5892 • FAX (805) 654-0720

**MONITORING REPORT**  
for  
**DESERT PETROLEUM STATION NUMBER 796**  
2844 Mountain Boulevard  
Oakland, CA 94602

Prepared for:  
**DESERT PETROLEUM**  
2060 Knoll Drive  
Ventura, CA 93003

Prepared by:  
**RSI - REMEDIATION SERVICE, INT'L**  
P.O. Box 1601  
Oxnard, CA 93032

**Noel B. Plutchak**  
**R.G. #5761**

**December 13, 1993**

## TABLE OF CONTENTS

1.0 INTRODUCTION	Page 1
2.0 SITE DESCRIPTION	Page 1
3.0 BACKGROUND	Page 1
4.0 GROUNDWATER MONITORING	Page 2
4.1 Groundwater Monitoring Procedures	Page 2
4.2 Groundwater Monitoring Results	Page 2
5.0 REMEDIATION UPDATE	Page 3
6.0 LIMITATIONS	Page 3
FIGURES	
1. Location Map	
2. Site Plan	
TABLES	
1. Groundwater Data	
2. Summary of Analytical Results	
APPENDICES	
A. Groundwater Sample Logs	
B. Laboratory Reports and Chain of Custody Documents	

## 1.0 INTRODUCTION

This report presents the results of groundwater monitoring and gives an update of remedial activity for Desert Petroleum Station Number 796. The subject property is located at 2844 Mountain Boulevard in Oakland, Alameda County, California 94602 (Figure 1). Elevated concentrations of gasoline have been identified in both the soil and shallow groundwater at this site.

## 2.0 SITE DESCRIPTION

The site is located at the intersection of Mountain Boulevard and Werner Court in Oakland, California (Figure 2). The property is currently occupied by a retail gasoline station operating under the ARCO trade name. Site improvements include three underground storage tanks, two pump islands and an office/garage building. The tanks contain various grades of unleaded gasoline and diesel and have individual storage capacities of 3,000, 4,000, and 10,000 gallons.

## 3.0 BACKGROUND

Soil contamination was originally identified during replacement of the product lines in March, 1989. Analytical results of soil samples collected from beneath the lines near the pump islands reported total petroleum hydrocarbons as gasoline (TPH) concentrations of less than 100 parts per million (ppm). Another sample from the southern edge of the premium unleaded tank contained a TPH concentration of 8,400 ppm. In July, 1989, On-Site Technologies excavated and disposed of contaminated soil from the southern end of the premium unleaded tank (On-Site Technologies technical report dated 8/31/89).

In May, 1990 RSI conducted further assessment of the site (RSI technical report dated July 25, 1990). Four groundwater monitoring wells were installed and sampled at the locations shown on Figure 2. Analysis of soil samples collected above the water table reported TPH concentrations ranging from 1 to 240 ppm. TPH concentrations were detected in the groundwater samples collected from all the wells; the highest concentration (23,000 ug/L) was found in monitoring well RS-2 (Table 2).

Active remediation of soil contamination began at the site in June, 1991 using an RSI S.A.V.E.<sup>TM</sup> System to vacuum extract gasoline hydrocarbons from the soil. Groundwater remediation began in October, 1991. Groundwater was pumped from wells RS-1 and RS-2 and treated with the S.A.V.E.<sup>TM</sup> equipment. Active remediation was suspended in February, 1992 because Desert Petroleum filed bankruptcy.

## 4.0 GROUNDWATER MONITORING

### 4.1 Groundwater Monitoring Procedures

The most recent groundwater monitoring episode at this site occurred on November 25, 1993. Monitoring was conducted by first measuring all wells for depth to water (Table 1). The wells were measured to an accuracy of 0.01 feet and the measuring point for each well was the top of the sleeve of the well casing. After measuring, the wells were purged with a PVC bailer and sampled. The pump and hoses were decontaminated between wells using a standard 3-bucket wash method. The wells were purged until dry or three well casing 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 Water Sample Logs (Appendix A).

After the wells had recharged a minimum of 80 percent, they were sampled using disposable bailers. The samples were sealed, labeled and placed on blue ice for transportation to Coast to Coast Analytical, a state certified laboratory. All samples were analyzed for TPH as gasoline and diesel using modified EPA method 8015M and for benzene, toluene, ethyl-benzene and xylenes (BTEX) using EPA method 602. The minimum detection level for TPH was 500 ug/l (parts per billion); for benzene and toluene, the minimum detection level was 0.3 ug/l and for ethylbenzene and total xylenes, the minimum detection level was 0.6 ug/l. The laboratory reports are contained in Appendix B.

### 4.2 Groundwater Monitoring Results

As reported on Table 1, depth to groundwater on the site ranged from 7.12 to 9.83 feet below ground surface (bgs). The original survey datum for each of the wells onsite has been changed due to damage from heavy equipment and/or wellhead piping modifications for connection to remediation equipment, therefore the groundwater flow direction on this site could not be determined. Previous monitoring reported groundwater flow in a southwesterly direction. No floating product was found in any of the wells during this investigation.

Analytical results for the samples collected during this sampling episode and all previous monitoring episodes are summarized in Table 2. The official laboratory results and Chain-of-Custody documents are included in Appendix B. As shown on Table 2, hydrocarbon concentrations have decreased significantly in wells RS-2, RS-3 and RS-4. Well RS-1 contained lower BTEX concentrations and a slightly higher TPH concentration than the previous sampling episode in August, 1993.

## 5.0 REMEDIATION UPDATE

Vapor extraction and treatment began in June, 1991 with the installation of RSI's S.A.V.E.<sup>TM</sup> System. Groundwater extraction and treatment began in October, 1991. Due to noise complaints from neighboring residents, the system was operated only sporadically. Remedial operations were suspended on February 10, 1992, due to Desert Petroleum's filing bankruptcy. The calculated amount of contaminant removed by both vapor and groundwater extraction was 170.5 gallons of gasoline.

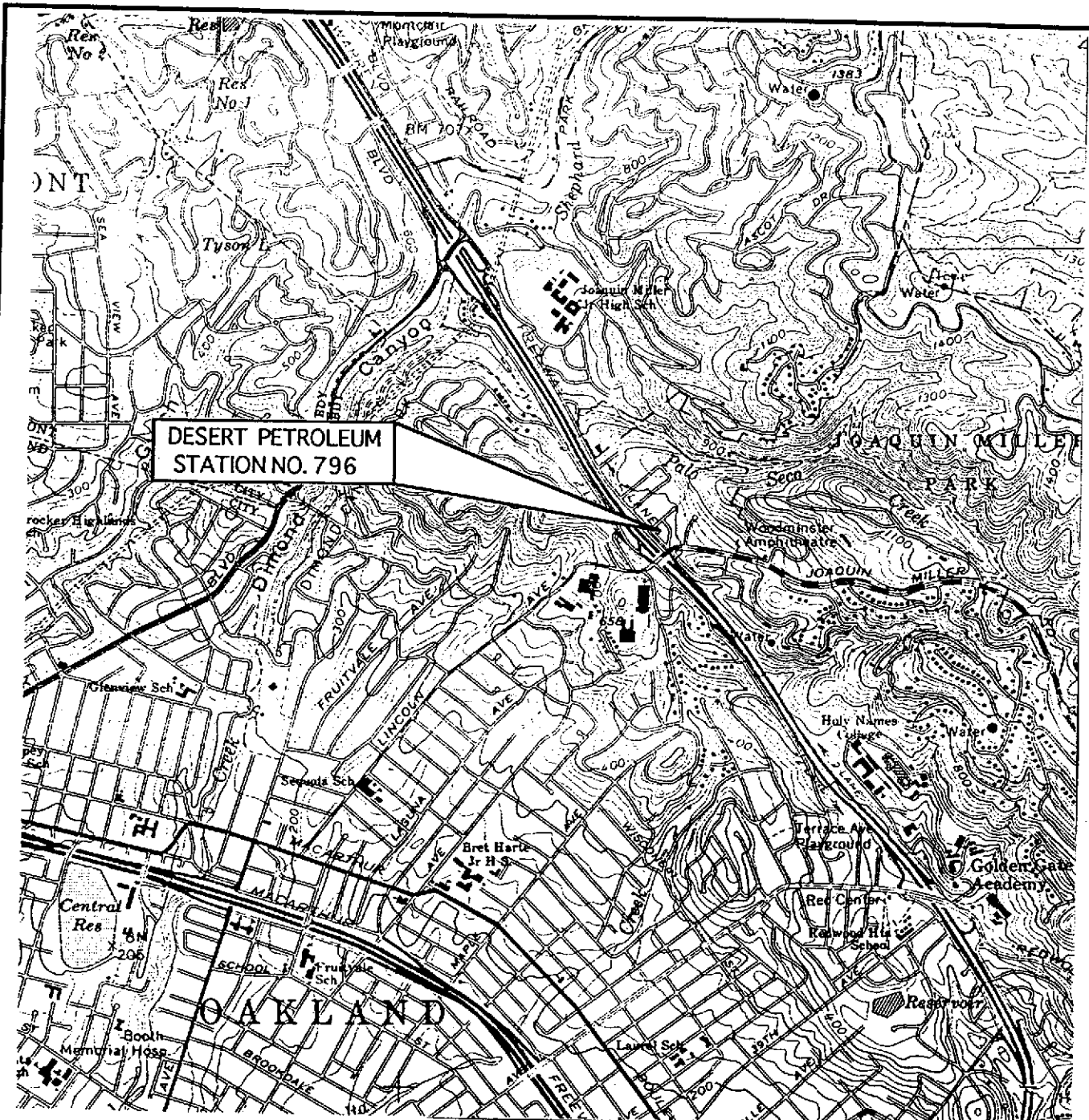
The S.A.V.E.<sup>TM</sup> System has not run since the February, 1992 shut down. Vapor extraction is tentatively scheduled to resume on December 13, 1993. Groundwater extraction will resume upon receipt of operating permits; tentatively this should occur around the last week of January or the first week of February, 1994. The system will operate only during daytime hours to comply with residential noise constraints. Regular maintenance and monitoring of the S.A.V.E.<sup>TM</sup> system will occur on a weekly basis.

## 6.0 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; also, if applicable, other local regulations.

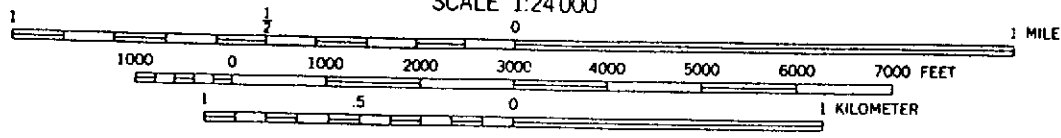
Variations in the soil and groundwater conditions may exist beyond the points explored in this investigation.

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. No other warranty, expressed or implied, is made.



**DESERT PETROLEUM  
STATION NO. 796**

SCALE 1:24 000



FROM U.S.G.S. 7.5' TOPOGRAPHIC  
QUADRANGLE "OAKLAND EAST,  
CALIFORNIA," 1959, PHOTOREVISED  
1980

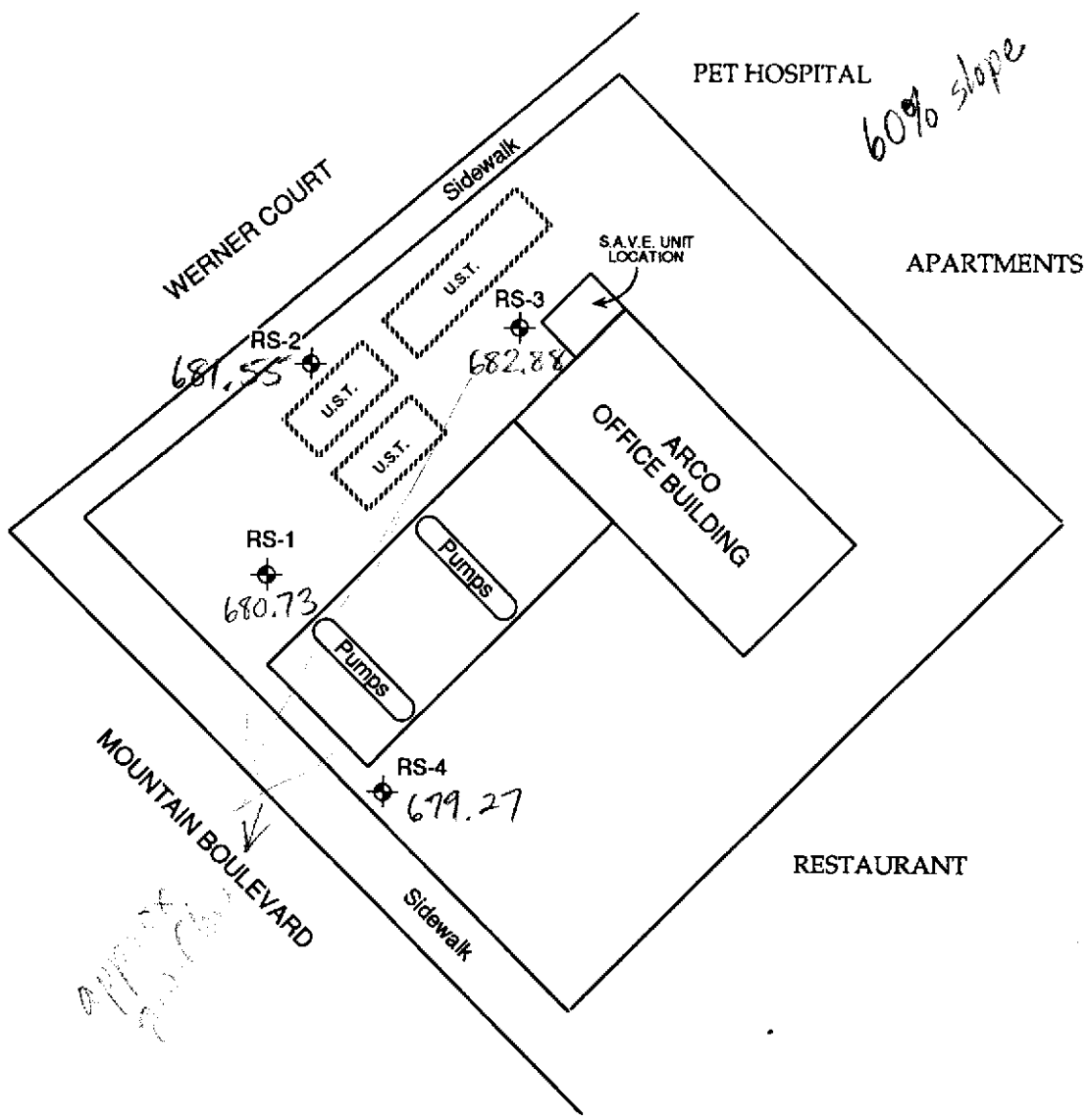
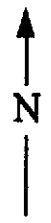


**DESERT PETROLEUM, INC.**

DESERT PETROLEUM STATION #796  
2844 MOUNTAIN BLVD.  
OAKLAND, CA

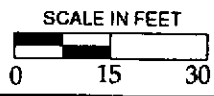
FIGURE 1: LOCATION MAP

**RSI - REMEDIATION SERVICE, INT'L**



*APPROXIMATE*

*approx. \* GWE*



<b>DESERT PETROLEUM, INC.</b>
DESERT PETROLEUM STATION #796 2844 MOUNTAIN BLVD. OAKLAND, CALIFORNIA
FIGURE 2: SITE MAP
<b>RSI</b> REMEDIATION SERVICE, INT'L.

*\* See Table 1*



**TABLE 1  
GROUNDWATER DATA**

**DESERT PETROLEUM STATION #796  
2844 MOUNTAIN BLVD.  
OAKLAND, CA**

Measurements are in feet.

Well	Date Measured	Depth to Water*	Well Head Elevation**	Water Table Elevation	Change in Elevation
RS-1	5/90	7.20	689.25	682.05	
	5/91	8.35	689.25	680.90	-1.15
	10/91	10.22	689.17	678.95	-1.95
	1/92	8.06	689.17	681.11	2.16
	1/93	5.30	689.17	683.87	2.76
	8/93	8.56	689.17	680.61	-3.26
	11/93	8.44	689.17	680.73 ✓	0.12
RS-2	5/90	7.06	689.00	681.94	
	5/91	7.14	689.00	681.86	-0.08
	10/91	8.84	688.89	680.05	-1.81
	1/92	7.34	688.89	681.55	1.50
	1/93	4.10	688.89	684.79	3.24
	8/93	7.32	688.89	681.57 ✓	-3.22
	11/93	7.34	688.89	681.55 ✓	-0.02
RS-3	5/90	6.00	690.00	684.00	
	5/91	6.76	690.00	683.24	-0.76
	10/91	8.98	690.00	681.02	-2.22
	1/92	6.81	690.00	683.19	2.17
	1/93	4.05	690.00	685.95	2.76
	8/93	7.19	690.00	682.81	-3.14
	11/93	7.12	690.00	682.88 ✓	0.07
RS-4	5/90	8.34	689.06	680.72	
	5/91	9.50	689.06	679.56	-1.16
	10/91	10.82	689.10	678.28	-1.28
	1/92	9.31	689.10	679.79	1.51
	1/93	6.89	689.10	682.21	2.42
	8/93	9.68	689.10	679.42	-2.79
	11/93	9.83	689.10	679.27 ✓	-0.15

\*Depth of water measured from top of well cover.

\*\*Elevation of RS-3 approximated from U.S.G.S Topographical Map. All other wells surveyed in relation to RS-3.

*not surveyed?*

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

DESERT PETROLEUM STATION #796  
2844 MOUNTAIN BLVD.  
OAKLAND, CA

Results are in ug/L (parts per billion).

WELL #	DATE SAMPLED	TPH	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES
RS-1	5/90	2,700	370	420	40	320
	5/91	1,300	580	130	62	240
	10/91	1,100	140	100	45	210
	1/92	1,700	9.9	31	9.7	170
	1/93	3,700	650	9.2	51	170
	8/93	900	14	0.6	2.1	7.8
	11/93	1,400	9.6	ND	0.9	4.9
RS-2	5/90	23,000	7,200	4,800	300	3,300
	5/91	26,000	14,000	1,800	750	2,900
	10/91	13,000	4,300	910	300	2,300
	1/92	8,300	1,800	920	140	1,700
	1/93	41,000	7,000	210	1,200	4,200
	8/93	19,000	5,300	62	810	1,600
	11/93	9,300	2,400	3.9	46	800
RS-3	5/90	330	2	1	1	150
	5/91	ND	0.4	ND	0.8	8.2
	10/91	ND	ND	ND	ND	ND
	1/92	ND	2.2	7.2	0.6	3.6
	1/93	ND	ND	ND	ND	ND
	8/93	ND	30	6	2.4	5
	11/93	ND	4.8	0.4	0.6	1.9
RS-4	5/90	440	9	11	9	49
	5/91	ND	8	4	3	5
	10/91	830	280	120	24	170
	1/92	620	34	8.3	2.1	21
	1/93	150	32	1.7	5.8	13
	8/93	ND	0.9	0.7	ND	0.3
	11/93	ND	ND	ND	ND	ND

TPH = Total petroleum hydrocarbons (gasoline)

ND = Not detected above minimum detection levels.

Minimum detection limits on 11/93 were: TPH = 500, Benzene = 0.3,  
Toluene = 0.3, Ethylbenzene = 0.6, Total Xylenes = 0.6.

# WATER SAMPLE LOG

CLIENT: Desert Petroleum  
 PROJECT: DP 796  
 LOCATION: 2844 Mountain Blvd., Oakland, CA

DATE: 11/25/93

WELL NUMBER: RS-1

WEATHER CONDITIONS: Cold, sunny.  
 FIELD OBSERVATIONS: Well is downhill from gas dispenser. Well cover was caved in.  
Sand/gravel in bailer after 30 gallons removed.

TOTAL DEPTH OF WELL: 31.5 feet CASING DIAMETER: 4 inches  
 DEPTH TO FREE PRODUCT: NONE ONE CASING VOLUME = 15.06 gallons  
 DEPTH TO WATER: 8.44 feet PURGING METHOD: PVC Bailer  
 DEPTHS MEASURED FROM: Top of sleeve on casing.

WELL PURGING DATA					
Time	Discharge (gallons)	pH	Temp in °F	Specific Conductance (µmhos/cm)	Comments (Color, Odor, Turbidity)
12:15	2	7.38	65.0	NA	Clear, no HC odor, none
12:20	5	7.31	66.1	NA	Clear, <del>HC odor</del> , none
12:30	10	7.54	65.8	NA	Grey, <del>HC odor</del> , none
12:35	15	7.85	65.7	NA	Grey, <del>HC odor</del> , none
12:45	20	7.50	68.0	NA	Grey, <del>HC odor</del> , none
12:50	25	7.40	63.3	NA	Grey, <del>HC odor</del> , none
1:00	30	7.65	62.9	NA	Grey, <del>HC odor</del> , none
1:15	40	7.79	62.7	NA	Grey, <del>HC odor</del> , none
1:30	55	7.78	63.6	NA	Grey/silty, <del>HC odor</del> , none

NA - due to suspected faulty conductance readings.

TOTAL DISCHARGE: 55 gallons CASING VOLUMES REMOVED: 3.7

TIME SAMPLE COLLECTED: 10:10 AM 11/26/93

DEPTH TO WATER AT TIME OF SAMPLE: 8.43 feet PERCENT RECHARGE: 100

METHOD OF SAMPLE COLLECTION: Disposable Bailer

APPEARANCE OF SAMPLE: Grey, foggy

AMOUNT AND SIZE OF SAMPLE CONTAINERS: 3 x 40 ml. VOA's, 1 x 1 l. glass jar.

SAMPLE TRANSPORTED TO: Coast to Coast Analytical

SAMPLED BY: RWP

**RSI - REMEDIATION SERVICE, INTL**

# WATER SAMPLE LOG

CLIENT: Desert Petroleum

DATE: 11/25/93

PROJECT: DP 796

LOCATION: 2844 Mountain Blvd., Oakland, CA

WELL NUMBER: RS-2

WEATHER CONDITIONS: Cold, sunny.

FIELD OBSERVATIONS: Well cover was not properly set; it is too low & crushed into the pavement.  
Sand/gravel in bailer after 35 gallons removed.

TOTAL DEPTH OF WELL: 24.54 feet CASING DIAMETER: 4 inches

DEPTH TO FREE PRODUCT: NONE ONE CASING VOLUME = 11.23 gallons

DEPTH TO WATER: 7.34 feet PURGING METHOD: PVC Bailer

DEPTHS MEASURED FROM: Top of sleeve on casing.

### WELL PURGING DATA

Time	Discharge (gallons)	pH	Temp in °F	Specific Conductance (µmhos/cm)	Comments (Color, Odor, Turbidity)
2:30	2				Clear, strong HC odor, none
2:35	5	8.01			Grey, strong HC odor, none
2:40	10		63.2		Grey, strong HC odor, none
2:50	15			NA	Grey, strong HC odor, none
3:00	20	7.97			Grey, strong HC odor, none
3:10	25				Grey, strong HC odor, none
3:15	30			NA	Grey, strong HC odor, none
3:30	35	8.07	64.2		Grey, strong HC odor, gravel in bailer

NA - due to suspected faulty conductance readings.

TOTAL DISCHARGE: 35 gallons CASING VOLUMES REMOVED: 3.1

TIME SAMPLE COLLECTED: 9:15 AM 11/26/93

DEPTH TO WATER AT TIME OF SAMPLE: 7.38 feet PERCENT RECHARGE: 100

METHOD OF SAMPLE COLLECTION: Disposable Bailer

APPEARANCE OF SAMPLE: Grey, cloudy

AMOUNT AND SIZE OF SAMPLE CONTAINERS: 3 x 40 ml. VOA's, 1 x 1 l. glass jar.

SAMPLE TRANSPORTED TO: Coast to Coast Analytical

SAMPLED BY: RWP

**RSI** - REMEDIATION SERVICE, INT'L

# WATER SAMPLE LOG

CLIENT: Desert Petroleum

DATE: 11/25/93

PROJECT: DP 796

LOCATION: 2844 Mountain Blvd., Oakland, CA

WELL NUMBER: RS-3

WEATHER CONDITIONS: Cold, sunny.

FIELD OBSERVATIONS: Surface spillage entering wells due to deteriorated well heads.

TOTAL DEPTH OF WELL: 24.4 feet CASING DIAMETER: 4 inches

DEPTH TO FREE PRODUCT: NONE ONE CASING VOLUME = 11.28 gallons

DEPTH TO WATER: 7.12 feet PURGING METHOD: PVC Bailer

DEPTHS MEASURED FROM: Top of sleeve on casing.

## WELL PURGING DATA

Time	Discharge (gallons)	pH	Temp in °F	Specific Conductance (µmhos/cm)	Comments (Color, Odor, Turbidity)
1:30	2	8.80	65.1	NA	Clear, no HC odor, none
1:35	10	8.90	65.7	NA	Clear, no HC odor, none
1:45	20	8.40	65.3	NA	Clear, no HC odor, none
2:00	30	8.60	65.5	NA	Lt. brown, no HC odor, none
2:10	36	8.60	65.7	NA	Lt. brown, no HC odor, none

NA - due to suspected faulty conductance readings.

TOTAL DISCHARGE: 36 gallons CASING VOLUMES REMOVED: 3.2

TIME SAMPLE COLLECTED: 8:40 AM 11/26/93

DEPTH TO WATER AT TIME OF SAMPLE: 7.12 feet PERCENT RECHARGE: 100

METHOD OF SAMPLE COLLECTION: Disposable Bailer

APPEARANCE OF SAMPLE: Clear, no odor

AMOUNT AND SIZE OF SAMPLE CONTAINERS: 3 x 40 ml. VOA's, 1 x 1 l. glass jar.

SAMPLE TRANSPORTED TO: Coast to Coast Analytical

SAMPLED BY: RMP

**RSI - REMEDIATION SERVICE, INT'L**

# WATER SAMPLE LOG

CLIENT: Desert Petroleum

DATE: 11/25/93

PROJECT: DP 796

LOCATION: 2844 Mountain Blvd., Oakland, CA

WELL NUMBER: RS-4

WEATHER CONDITIONS: Cold, sunny.

FIELD OBSERVATIONS: Surface spillage entering wells due to deteriorated well heads.  
Slow recharge; 0.5'/hr. in all wells

TOTAL DEPTH OF WELL: 25.96 feet CASING DIAMETER: 4 inches

DEPTH TO FREE PRODUCT: NONE ONE CASING VOLUME = 10.53 gallons

DEPTH TO WATER: 9.83 feet PURGING METHOD: PVC Bailer

DEPTHS MEASURED FROM: Top of sleeve on casing.

## WELL PURGING DATA

Time	Discharge (gallons)	pH	Temp in °F	Specific Conductance (µmhos/cm)	Comments (Color, Odor, Turbidity)
9:15	5	6.98	64.8	NA	Lt. brown, minor sulfur odor, cloudy
9:20	10	7.13	62.7	NA	Lt. brown, minor sulfur odor, cloudy
9:25	15	7.01	62.5	NA	Lt. brown, minor sulfur odor, cloudy
9:30	20	7.44	59.7	NA	Lt. brown, minor sulfur odor, cloudy
9:35	25	7.39	59.4	NA	Lt. brown, minor sulfur odor, cloudy
9:45	30	7.35	58.8	NA	Lt. brown, minor sulfur odor, cloudy

NA - due to suspected faulty conductance readings.

TOTAL DISCHARGE: 30 gallons CASING VOLUMES REMOVED: 2.8

TIME SAMPLE COLLECTED: 8:05 AM 11/26/93

DEPTH TO WATER AT TIME OF SAMPLE: 9.83 feet PERCENT RECHARGE: 100

METHOD OF SAMPLE COLLECTION: Disposable Bailer

APPEARANCE OF SAMPLE: Light brown, cloudy

AMOUNT AND SIZE OF SAMPLE CONTAINERS: 3 x 40 ml. VOA's, 1 x 1 l. glass jar.

SAMPLE TRANSPORTED TO: Coast to Coast Analytical

SAMPLED BY: RWP

**RSI** - REMEDIATION SERVICE, INT'L

APPENDIX B  
LABORATORY REPORTS  
AND  
CHAIN OF CUSTODY

SoCal Division (Camarillo Laboratory)  
4765 Calle Quetzal, Camarillo, California 93012

(805) 389-1353  
FAX (805)389-1438

CLIENT: Richard Pilat  
R.S.I.  
P.O. Box 1601  
Oxnard, CA 93032

Lab Number : CJ5651  
Project : Mountain Dr. Oakland

P R E L I M I N A R Y  
REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE ID	SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED	
CJ5651-1	RS-4	Aqueous	Richard Pilat		11/26/93	11/29/93
CJ5651-2	RS-3	Aqueous	Richard Pilat		11/26/93	11/29/93
CJ5651-3	RS-2	Aqueous	Richard Pilat		11/26/93	11/29/93
CJ5651-4	RS-1	Aqueous	Richard Pilat		11/26/93	11/29/93

CONSTITUENT	UNITS	*PQL	CJ5651-1	CJ5651-2	CJ5651-3	CJ5651-4
BTEX + TPH (Gasoline)						
Method:			E602/8015M	E602/8015M	E602/8015M	E602/8015M
Analyzed by:			ZS	ZS	ZS	ZS
Analyzed on:			11/30/93	11/30/93	11/30/93	11/30/93
Dilution Factor			1.0	1.0	1.0	1.0
Notes:			1	1	1	1
Benzene	ug/L	0.3	ND	4.8	2400.	9.6
Toluene	ug/L	0.3	ND	0.4	3.9	ND
Ethylbenzene	ug/L	0.6	ND	0.6	46.	0.9
Xylenes (total)	ug/L	0.6	ND	1.9	800.	4.9
Total Petroleum Hydrocarbons (Gasoline)	ug/L	500.	ND	ND	9300.	1400.
Amount Surrogate Spiked	ug/L	10000	9800.	9900.	10100.	10100.
Percent Surr. Recovery	PERCENT		98.	99.	101.	101.
pH of preserved sample	UNITS		1.	2.	2.	2.

Lab Certifications: CAELAP #1598 & #1783; UTELAP #E-142; AZELAP #AZ0162; A2LA #0136-01; L.A.Co.CSD #10187  
\*RESULTS of 'ND' not detected at or above the listed PQL times Dilution Factor.

(1) EXTRACTED by EPA 5030 (purge-and-trap)

12/02/93  
GC9/S9N3347  
MH/\_\_\_/zs  
CJ565113342

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

Mary Havlicek, Ph.D.  
President



SoCal Division (Camarillo Laboratory)  
4765 Calle Quetzal, Camarillo, California 93012

(805) 389-1353  
FAX (805)389-1438

CLIENT: Richard Pilat  
R.S.I.  
P.O. Box 1601  
Oxnard, CA 93032

Lab Number : CJ5651  
Project : Mountain Dr. Oakland

P R E L I M I N A R Y  
REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE ID	SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED	
CJ5651-1	RS-4	Aqueous	Richard Pilat		11/26/93	11/29/93
CJ5651-2	RS-3	Aqueous	Richard Pilat		11/26/93	11/29/93
CJ5651-3	RS-2	Aqueous	Richard Pilat		11/26/93	11/29/93
CJ5651-4	RS-1	Aqueous	Richard Pilat		11/26/93	11/29/93
CONSTITUENT	UNITS	*PQL	CJ5651-1	CJ5651-2	CJ5651-3	CJ5651-4
Total Petroleum Hydrocarbons (Diesel)	ug/L	500.	ND	ND	ND	ND
Method:			8015M/3510	8015M/3510	8015M/3510	8015M/3510
Analyzed by:			ZS	ZS	ZS	ZS
Analyzed on:			11/30/93	11/30/93	11/30/93	11/30/93
Dilution Factor			1.0	1.0	1.0	1.0
Notes:			1	1	1	1

Lab Certifications: CAELAP #1598 & #1783; UTELAP #E-142; AZELAP #AZ0162; A2LA #0136-01; L.A.Co.CSD #10187  
\*RESULTS of 'ND' not detected at or above the listed PQL times Dilution Factor.  
(1) Extracted by EPA Method 3510.

12/02/93  
GC2/S2D3346  
MH/\_\_\_/zs  
CJ56080334D

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

Mary Havlicek, Ph.D.  
President