

**ROUX**

**ENVIRONMENTAL CONSULTING  
AND MANAGEMENT**

Number of pages including cover sheet:

7

**ROUX ASSOCIATES**

STID 1120

1855 Gateway Boulevard  
Suite 770  
Concord, California 94520

**FAX TRANSMITTAL**

Date: 5-14-92

To: Jennifer Eberle

Company: Alameda County Health Agency

FAX No: 510 569-4757

From: Paul Suggle

Project No. 27001W

Roux Associates, Inc.  
Fax No: (510) 687-1258  
Phone No: (510) 602-2333

Comments: Laboratory analytical data for soil samples collected from below fuel dispensers at UNOCAL SS # 1871. I will call to discuss. 96 MacArthur Oak 610

P.S.

**TABLE 1: Summary of Soil Analyses: Below Removed Fuel Dispensers  
UNOCAL Service Station No. 1871, Oakland, California**

Sample Designation	Date	Depth (feet bgs)	BTEX Distinction (1)					Lead (1)
			TPH-G (1)	Benzene	Toluene	Ethylbenzene	Xylenes	
D1	5/13/92	2	ND	ND	ND	ND	ND	2.4
D2	5/13/92	2	ND	ND	ND	ND	ND	2.6
D3	5/13/92	4	38	0.20	0.087	0.52	0.97	23
D4	5/13/92	5	29	ND	ND	ND	0.0070	4.8

Must overex. <sup>D3</sup> to  
 <10ppm TPH-g +  
 to ND Benzene.  
 How many samples  
 + 2 yd I be there  
 for digging? no

**FOOTNOTES**

(1) = Concentrations reported in mg/kg (ppm)

TPH-G = Total Petroleum Fuel Hydrocarbons As Low/Medium Boiling Point Hydrocarbons (USEPA Method 8015)

BTEX Distinction (USEPA Method 8020)

Lead = Total Lead (USEPA Method 6010)

ND = None Detected

bgs = Below ground surface

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5-14-82 ; 1:27PM ;

5106022333# 2



# SEQUOIA ANALYTICAL

1800 Bates Avenue • Suite LM • Concord, California 94520  
 (510) 888-8800 • FAX (510) 888-8888

Roux Associates 1885 Gateway Blvd. Suite 770 Concord, CA 94520 Attention: Paul Supple	Client Project ID: Unocal 1671/927001W Matrix Describe: Soil Analysis Method: EPA 8030/8015/8020 First Sample #: 205-0566	Sampled: May 13, 1982 Received: May 13, 1982 Analyzed: 5/13-14/1982 Reported: May 14, 1982
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## TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P.	Benzene	Toluene	Ethyl Benzene	Xylenes
		Hydrocarbons mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)
205-0566	D1	N.D.	N.D.	N.D.	N.D.	N.D.
205-0567	D2	N.D.	N.D.	N.D.	N.D.	N.D.
205-0568	D3	58	0.20	0.087	0.52	0.97

### Detection Limits:

1.0

0.0050

0.0050

0.0050

0.0050

Low to Medium Boiling Fuel Hydrocarbons are quantified against a gasoline standard.  
 Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Kenneth K.P. Lee  
 Laboratory Director

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# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 886-9600 • FAX (510) 886-9666

<b>Client:</b> Roux Associates 1888 Gateway Blvd. Suite 770 Concord, CA 94520 Attention: Paul Surple	<b>Client Project ID:</b> Unocal 1871/#27001W <b>Matrix Description:</b> Soil <b>Analysis Method:</b> EPA 8080/8015/8020 <b>First Sample #:</b> 205-0329	<b>Sampled:</b> May 13, 1982 <b>Received:</b> May 13, 1982 <b>Analyzed:</b> 5/13-14/1982 <b>Reported:</b> May 14, 1982
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## TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
205-0329	04	2.8	N.D.	N.D.	N.D.	0.0070

<b>Detection Limits:</b>	10	0.050	0.050	0.050	0.050
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Low to Medium Boiling Point Hydrocarbons are quantized against a gasoline standard. Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Kenneth K.F. Lee  
Laboratory Director

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# SEQUOIA ANALYTICAL

1800 Bates Avenue • Suite LM • Concord, California 94520  
 (510) 886-8800 • FAX (510) 886-8889

ROUX Associates 1865 Gateway Blvd. Suite 770 Concord, CA 94520 Attention: Paul Supple	Client Project ID: Unocal 1871/927001W Sample Descript: Soil Analysis for: Total Lead First Sample #: 205-0566	Sampled: May 13, 1992 Received: May 13, 1992 Extracted: May 14, 1992 Analyzed: May 14, 1992 Reported: May 14, 1992
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## LABORATORY ANALYSIS FOR: Total Lead.

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
205-0566	D1	0.25	2.4
205-0567	D2	0.25	2.8
205-0568	D3	0.25	2.8
205-0569	D4	0.25	4.8

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

  
 Kenneth K.F. Lee  
 Laboratory Director

DISCUSSION <3>



# SEQUOIA ANALYTICAL

1800 Babes Avenue • Suite LM • Concord, California 94520  
 (510) 686-9600 • FAX (510) 686-9689

Roux Associates

Client Project ID: Unocal 1571/427001W

1858 Gateway Blvd. Suite 770

Concord, CA 94520

Attention: Paul Supple

QC Sample Group: 2080589-9

Reported: May 14, 1992

## QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl- Benzene	Xylenes	Total Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 7421
Analyst:	K.N.	K.N.	K.N.	K.N.	K.A.
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	May 13, 1992	May 13, 1992	May 13, 1992	May 13, 1992	May 14, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	208-0589
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	2.4
Spike Conc. Added:	0.40	0.40	0.40	1.2	50
Comp. Matrix Spike:	0.34	0.44	0.45	1.3	48
Matrix Spike % Recovery:	85	110	113	108	78
Comp. Matrix Spike Dup.:	0.34	0.43	0.49	1.2	40
Matrix Spike Duplicate % Recovery:	85	108	108	100	75
Relative % Differences:	0.0	2.9	4.5	6.0	4.9

SEQUOIA ANALYTICAL

*Kenneth K.F. Lee*  
 Kenneth K.F. Lee  
 Laboratory Director

% Recovery:

$$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

x 100

Relative % Difference:

$$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$$

x 100

2080589-9-9

**ROUX****CHAIN OF CUSTODY**

No 00308 W

<b>ROUX ASSOCIATES INC</b> Consulting Ground-Water Geologists & Engineers		1340 ARROYO DRIVE, SUITE 231 MARTINEZ, CALIFORNIA 94553 (415) 370-2275 FAX. (415) 370-2238		<b>ANALYSES</b>					PAGE 1 OF 1	
PROJECT NAME RANCAL 17U		PROJECT NUMBER 2700613		SAMPLE MATRIX TYPING/ANALYSIS TOTAL LEAD TOTAL METALS						
PROJECT LOCATION OAKLAND										
SAMPLER(S) T. RAMSDEN										
SAMPLE DESIGNATION/LOCATION	DATE COLLECTED	TIME COLLECTED	ANALYSIS						NOTES	
D1	5/1/92	1250	SP	X	X				2050566	
D2	5/1/92	1240	SP	X	X				567	
D3	5/1/92	1305	SP	X	X				568	
D4	5/1/92	1310	SP	X	X				569	
RELINQUISHED BY: (SAMPLER'S SIGNATURE) <i>T. Ramsden</i>		FOR	DATE	TIME	SEAL INTEGRITY Y OR N	RECEIVED BY: (SIGNATURE) <i>Ken Van Sumbach</i>	FOR	DATE	TIME	SEAL INTEGRITY Y OR N
RELINQUISHED BY: (SIGNATURE)		FOR	DATE	TIME	SEAL INTEGRITY Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTEGRITY Y OR N
RELINQUISHED BY: (SIGNATURE)		FOR	DATE	TIME	SEAL INTEGRITY Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTEGRITY Y OR N
DELIVERY METHOD Hand		COMMENTS 24 - Hour Turnaround								
ANALYTICAL LABORATORY SEQUOIA		PROJECT NO: 00308 W								

MAY-14-92 THU 15:55  
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 5-14-92 1:18:18 PM  
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 P. 07  
 51080223331# 8