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1:21 pm, Apr 30, 2009

Alameda County
Environmental Health

MPDS-UN5043-09 December 5, 1996

Unocal Corporation 2000 Crow Canyon Place, Suite 400 P.O. Box 5155 San Ramon, California 94583

Attention: Mr. David B. De Witt

RE: Quarterly Data Report

Unocal Service Station #5043 449 Hegenberger Road Oakland, California

FILE#.	<i>⊊</i> ⊃43_	_SSX	BP
RPT	_QM <u> </u>	_TRANS	AITTAL
			56

Dear Mr. Dc Witt:

This data report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by MPDS Services, Inc.

## RECENT FIELD ACTIVITIES

The monitoring wells that were monitored and sampled during this quarter are indicated in Table 1. Prior to sampling, the wells were checked for depth to water and the presence of free product or sheen. The monitoring data and the ground water elevations are summarized in Table 1. The ground water elevations during the most recent quarter are shown on the attached Figure 1.

Ground water samples were collected on October 28, 1996. Prior to sampling, the wells were purged of between 5 and 6 gallons of water. Samples were then collected using a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory. MPDS Services, Inc. transported the purged ground water to the Unocal Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

## ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to date are summarized in Table 2. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, and benzene detected in the ground water samples collected this quarter are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

MPDS-UN5043-09 December 5, 1996 Page 2

## **LIMITATIONS**

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants.

## **DISTRIBUTION**

A copy of this report should be sent to the Alameda County Health Care Services Agency.

If you have any questions regarding this report, please do not hesitate to call Mr. Joel G. Greger at (510) 602-5120.

JOEL G. GREGER No. EG 1633 CERTIFIED ENGINEERING

Sincerely,

MPDS Services, Inc.

Haig (Gary) Tejirian Senior Staff Geologist

Joel G. Greger, C.E.G. Senior Engineering Geologist

License No. EG 1633 Exp. Date 8/31/98

Attachments: Tables 1 & 2

Location Map Figures 1 & 2

Laboratory Analyses

Chain of Custody documentation

cc: Mr. Robert H. Kezerian, Kaprealian Engineering, Inc.

Table 1
Summary of Monitoring Data

	Ground Water Elevation	Depth to Water	Total Well Depth	Product Thickness		Water Purged
Well#	(feet)	(feet)≢	(feet)#	(feet)	Sheen	(gallons)
		(Monitored a	nd Sampled on Oc	tober 28, 1996)		
MW3	WELL WAS INAC					
MW6*	4.93†	4.10	12.85	0.21	N/A	0[17.5]
MW9	7.14	1.15	11.97	0	No	6
MW10	4.53	4.09	12,79	0	No	5
		(Monitored a	nd Purged on Oct	ober 16, 1996)		
MW6	4.75†	4.31	*	0.25	N/A	0[12 oz.]
		(Monitored	and Purged on Oc	tober 8, 1996)		
MW6	5.02†	4.01	*	0.21	N/A	0[10 oz.]
		(Monitored :	and Purged on Oc	tober 1, 1996)		
MW6	5.12†	4.02	*	0.35	N/A	0[14 oz.]
	(	Monitored an	nd Purged on Sept	ember 24, 1996)		
MW6	5.25†	4.00	*	0.49	N/A	0[16 oz.]
	(	Monitored an	nd Purged on Sept	ember 17, 1996)		
MW6	5.04†	3.98	*	0.20	N/A	0[15 oz.]
		(Monitored a	nd Purged on Sep	tember 9, 1996)		
MW6	5.11*	3.99	*	0.30	N/A	0[16 oz.]
		(Monitored a	nd Purged on Sept	tember 3, 1996)		
MW6	5.04†	4.02	*	0.25	N/A	0[12 oz.]
		(Monitored	and Purged on Au	igust 29, 1996)		
MW6	5.19†	3.95	*	0.35	N/A	0[20 oz.]

Table 1 Summary of Monitoring Data

	Ground Water Elevation	Depth to Water	Total Well Depth	Product Thickness		Water Purged
Well#	(feet)	(feet) +	(fret).◆	(feet)	Sheen	(gallons)
		(Monitored a	and Purged on A	ugust 22, 1996)		
MW6	4.98†	4.04	*	0.20	N/A	0[10 oz.]
		(Monitored a	and Purged on A	ugust 14, 1996)		
MW6	5.51†	3.61	*	0.33	N/A	0[13 oz.]
		(Monitored	and Purged on A	ugust 6, 1996)		
MW6	5.35†	3.75	*	0.30	N/A	0[10 oz.]
		(Monitored	and Purged on .	July 31, 1996)		
MW6	5.68†	3.65	*	0.60	N/A	0[16 oz.]
		(Monitored	and Sampled on	July 26, 1996)		
MW3	WELL WAS IN	ACCESSIBLE (F	TLED WITH D			
MW6*	5.03†	6.40	12.85	3.33	N/A	0[2.1 gal.]
MW9 MW10	8.01 4.54	0.28 4.08	11.97 12.79	0 0	No No	8 6
(Augi	ust 1995 to July 1990	i: Monitoring a	and Sampling Su	spended Due to Si	te Constructio	on Activities)
(Aug	ust 1995 to July 1990				ite Constructio	on Activities)
	·	(Monitored a	nd Sampled on A	August 17, 1995)	ite Constructio	on Activities)
MW3	WELL WAS IN	(Monitored a	nd Sampled on A	August 17, 1995)	ite Constructio	on Activities)
MW3 MW6	WELL WAS IN	(Monitored a ACCESSIBLE (F ACCESSIBLE (F	nd Sampled on A FILLED WITH D PAVED OVER)	August 17, 1995)	ite Constructio	on Activities) 7.5
MW3	WELL WAS IN	(Monitored a	nd Sampled on A	August 17, 1995) IRT)		
MW3 MW6 MW9	WELL WAS IN WELL WAS IN 6.80	(Monitored a ACCESSIBLE (F ACCESSIBLE (F 1.49 4.05	nd Sampled on A FILLED WITH D PAVED OVER) 12,01	August 17, 1995) IRT) 0 0	No	7.5
MW3 MW6 MW9 MW10	WELL WAS INA WELL WAS INA 6.80 4.57 WELL DESTRO	(Monitored a ACCESSIBLE (F ACCESSIBLE (F 1.49 4.05 (Monitored	nd Sampled on A FILLED WITH D PAVED OVER) 12,01 12,79 and Sampled on	August 17, 1995) IRT) 0 0	No	7.5
MW3 MW6 MW9 MW10	WELL WAS INA WELL WAS INA 6.80 4.57 WELL DESTRO WELL DESTRO	(Monitored a ACCESSIBLE (F ACCESSIBLE (F 1.49 4.05  (Monitored EYED IN MARCEYED IN MARCEYED IN MARCE	nd Sampled on A FILLED WITH D PAVED OVER) 12,01 12,79 and Sampled on CH 1995 CH 1995	August 17, 1995) IRT)  0 0 0  May 18, 1995)	No No	7.5 6
MW3 MW6 MW9 MW10 MW1 MW2 MW3	WELL WAS INA WELL WAS INA 6.80 4.57 WELL DESTRO WELL DESTRO 2.86	(Monitored a ACCESSIBLE (F 1.49 4.05  (Monitored OYED IN MARC 4.56	nd Sampled on A FILLED WITH D PAVED OVER) 12,01 12,79 and Sampled on	August 17, 1995) IRT) 0 0	No	7.5
MW3 MW6 MW9 MW10	WELL WAS INA WELL WAS INA 6.80 4.57 WELL DESTRO WELL DESTRO	(Monitored a ACCESSIBLE (F 1.49 4.05  (Monitored OYED IN MARC 4.56	nd Sampled on A FILLED WITH D PAVED OVER) 12,01 12,79 and Sampled on CH 1995 CH 1995	August 17, 1995) IRT)  0 0 0  May 18, 1995)	No No	7.5 6

**Table 1**Summary of Monitoring Data

	Well Casing
	Elevation
Well#	(Icel)**
MWI	7.38
MW2	8.58
MW3	7.42
MW6	8.87
MW9	8.29
MW10	8.62

- The depth to water level and total well depth measurements were taken from the top of the well easings.
- Monitored only.
- \*\* The elevations of the top of the well casings are relative to Mean Sea Level (MSL), per the City of Oakland Benchmark #3880 (elevation = 20.37 feet MSL).
- § The well was obstructed with debris at 0.55 feet. A water sample was collected but was not analyzed, as it was considered not representative of ground water in this well.
- † The ground water elevation was corrected for the presence of free product (correction factor = 0.77).
- ★ Total well depth was not measured.
- [x] Amount of product purged.
- Sheen determination was not performed.

N/A = Not applicable.

Table 2
Summary of Laboratory Analyses
Water

		TPH as	TPH as	10000000000000000000000000000000000000		Ethyl-		
Well#	Date	Diesel	Casoline	Benzene	Tobiene	Benzene	Xylenes	MTBE
		·						
MW1	2/18/92	13,000	150,000	17,000	26,000	5,200	26,000	
	5/20/92	NOT SAMPI	LED DUE TO					
	8/31/92	8,900†	64,000	13,000	12,000	2,500	22,000	
	11/30/92		ED DUE TO					
	2/4/93		LED DUE TO					
	5/4/93		LED DUE TO					
	8/4/93		LED DUE TO					
	11/3/93		LED DUE TO					
	2/7/94		LED DUE TO					
	5/19/94		LED DUE TO					
	8/15/94		LED DUE TO					
	11/14/94		LED DUE TO					
	2/21/95		LED DUE TO			EE PRODU	CT	
	5/18/95	WELL DEST	ROYED IN I	MARCH 1995	,			
MW2	2/18/92	4,300	29,000	1,000	5,300	260	7,900	
IVI VV Z	5/20/92	4,300†	24,000	2,200	7,600	630	11,000	
	8/31/92	1,600†	9,000	1,800	640	140	2,000	
	11/30/92	5,700†	29,000	2,000	3,400	1,200	6,900	
	2/4/93	6,100†	18,000	1,600	3,000	ND	6,900	
	5/4/93	7,100†	63,000	3,200	17,000	470	17,000	
	8/4/93	1,800††	45,000	2,100	6,600	1,400	12,000	
	11/3/93	2,600††	72,000	3,700	16,000	3,700	20,000	
	2/7/94		LED DUE TO	•	•		•	
	5/19/94	3,000††	42,000	2,500	1,300	2,300	13,000	
	8/15/94	2,800††	35,000	2,400	850	1,700	15,000	
	11/14/94	10,000†	43,000	2,200	6,500	1,800	14,000	
	2/21/95	2,000††	44,000	2,200	3,200	1,300	1,500	
	5/18/95		FROYED IN I			•	·	
MW3	2/18/92	ND	230	4.8	22	1.8	33	
	5/20/92	WELL WAS	INACCESSII	BLE				
	8/31/92	92††	210**	1	ND	ND	ND	
	11/30/92	94	790**	ND	ND	ND	ND	
	2/4/93	550††	3,300	320	ND	96	6.1	
	5/4/93	250††	1,800*	95	ND	ND	ND	
	8/4/93	100	210**	ND	ND	ND	ND	
	11/3/93	160	640**	ND	ND	ND	ND	
	2/7/94	620††	2,700	110	ND	17	ND	
	5/19/94	480††	1,800	83	ND	6.2	9.1	
	8/15/94	110††	130	1.1	0.54	ND	0.97	'
	11/14/94	150††	1,600**	ND	ND	ND	ND	
	2/21/95	850††	3,800	350	ND	130	22	

Table 2
Summary of Laboratory Analyses
Water

		TPH as	TPH as			Ethyl-		
Well#	Date	Diesel	Gasoline	Benzene	Toluene	Benzene	Xylenes	MTRE
14302	E /10 (0E	150†	1,300*	42	ND	ND	ND	
MW3	5/18/95 8/1 <b>7</b> /95		INACCESSIBI				ND	
(Cont.)	7/26/96		INACCESSIBI					
	10/28/96		INACCESSIBI					
	10/20/70	WEEL WIL	11411002000		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-/0		
MW4	8/31/92	90††	240**	ND	ND	ND	0.54	
	11/30/92	61	420**	ND	ND	ND	ŊD	
	2/4/93	ND	ND	ND	ND	ND	ND	
	5/4/93	ND	110*	0.95	ND	ND	ND	
	8/4/93	81	250**	ND	3.5	ND	4.1	
	11/3/93	68	130**	ND	ND	ND	ND	
	2/7/94	ND	56**	ND	ND	ND	ND	
	5/19/94	90††	140**	ND	ND	ND	ND	
	8/15/94	72††	59**	ND	0.6	ND	ND	
	11/14/94	ND	130**	ND	ND	ND	ND	
	2/21/95	WELL DEST	TROYED IN JA	ANUARY I	993			
MW5	8/31/92	690†	78	0.89	ND	ND	13	
	11/30/92‡	470††	930	70	290	0.79	14	
	2/4/93‡	5,500††	5,700	38	ND	620	170	
	5/4/93‡	4,600†	7,400	41	ND	1,000	35	
	8/4/93‡	970††	1,500	130	1	460	11	
	11/3/93	2,100††	13,000	350	ND	3,500	530	
	2/7/94	830††	2,000	87	ND	370	110	
	5/19/94	600††	260	44	ND	32	4.1	==
	8/15/94	860††	1,600	110	ND	340	72 -	
	11/14/94	290†	250	40	ND	ND	5	
	2/21/95	WELL DES	FROYED IN JA	ANUARI	העצ			
MW6	8/31/92	750††	ND	ND	ND	ND	ND	
	11/30/92	1,400†	9,200	550	ND	740	1,600	
	2/4/93	890††	3,600	340	ND	290	550	
	5/4/93	1,800†	4,900	360	18	450	430	
	8/4/93	1,100††	3,400	390	ND	440	190	
	11/3/93	390††	1,400	320	ND	200	7.7	
	2/7/94	970††	4,900	650	ND	250	35	
	5/19/94	1,400††	3,600	300	1.7	210	41	
	8/15/94	790††	1,300	130	6.7	54	57	
	11/14/94	800††	730	50	ND	ND	39 30	
	2/21/95	730††	2,000	250	4.6	25	30	
	5/18/95		INACCESSIBI		OVED)			
	8/17/95 7/26/06		INACCESSIBI LED DUE TO	•	•	יזמטעק קסי	СT	
	7/26/96 10/28/96		LED DUE TO					
	10/28/90	NOT SAMP.	טו פטעו עפר	ine r <b>kes</b> i	BIACE OF LE	CONT CL	C I	

Table 2
Summary of Laboratory Analyses
Water

		TPH as	TPH as			Ethyl-		
Well#	Date	Diesel	Gasoline	Benzene	Toluene	Benzenc	Xylenes	MTBE
MW9	2/21/95	71††	70**	ND	ND	ND	ND	
	5/18/95	ND	52	ND	1.1	ND	1.9	
	8/17/95	ND	ND	ND	ND	ND	ND	
	7/26/96	98	ND	ND	ND	ND	ND	ND
	10/28/96	99†	ND	ND	ND	ND	ND	7.6
MW10	2/21/95	270††	1,500	250	26	9.1	160	<del></del>
	5/18/95	75‡	810	520	ND	18	23	
	8/17/95	ND	67	25	ND	2.4	ND	
	7/26/96	ND	ND	3.7	ND	ND	ND	ND
	10/28/96	ND	ND	1.1	ND	ND	ND	ND

- † Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.
- †† Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- \*\* Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.
- ‡ Total Oil & Grease was non-detectable.
  - The well was obstructed with debris at 0.55 feet. A water sample was collected but was not analyzed, as it was considered not representative of ground water in this well.

MTBE = Methyl tert butyl ether.

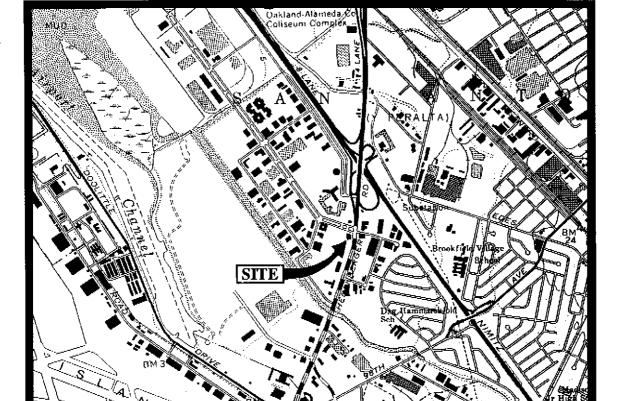
ND - Non-detectable.

Results are in micrograms per liter ( $\mu g/L$ ), unless otherwise indicated.

Note: The detection limit for results reported as ND by Sequoia Analytical Laboratory is equal to the stated detection limit times the dilution factor indicated on the laboratory analytical sheets.

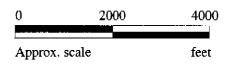
Prior to August 1, 1995, the total purgeable petroleum hydrocarbon (TPH as gasoline) quantification range used by Sequoia Analytical Laboratory was C4 - C12. Since August 1, 1995, the quantification range used by Sequoia Analytical Laboratory is C6 - C12.

Laboratory analyses data prior to February 7, 1994, were provided by Kaprealian Engineering, Inc.





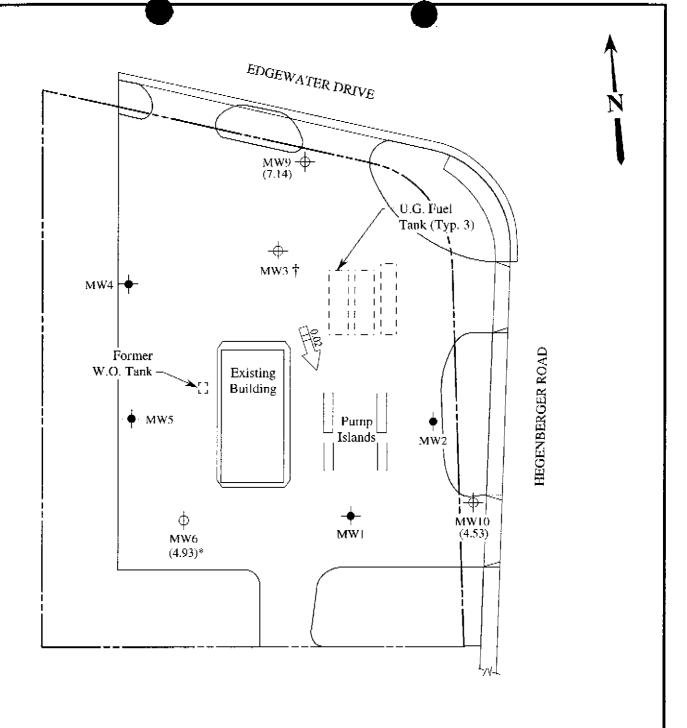
Base modified from 7.5 minute U.S.G.S. San Leandor Quadrangle (photorevised 1980)





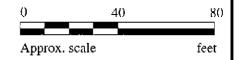
UNOCAL SERVICE STATION #5043 449 HEGENBERGER ROAD OAKLAND, CALIFORNIA

LOCATION MAP



# <u>LEGEND</u>

- Φ<sup>\*</sup> Monitoring well (existing)
- Monitoring well (destroyed)
- ( ) Ground water elevation in feet above Mean Sea Level
  - Direction of ground water flow with approximate hydraulic gradient
- † Well was inaccessible; filled with dirt
- \* Ground water elevation was corrected due to the presence of free product.



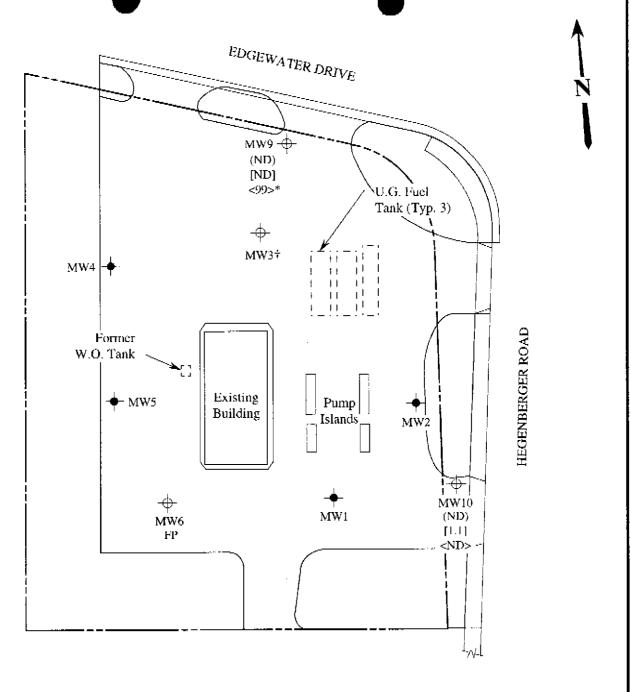
## GROUND WATER ELEVATION MAP FOR THE OCTOBER 28, 1996 MONITORING EVENT



UNOCAL SERVICE STATION #5043 449 HEGENBERGER ROAD OAKLAND, CALIFORNIA

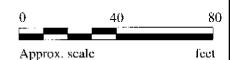
FIGURE

1



# **LEGEND**

- → Monitoring well (existing)
- Monitoring well (destroyed)
- ( ) Concentrations of TPH as gasoline in  $\mu$ g/L
- 1 Concentrations of benzene in μg/L
- < > Concentrations of TPH as diesel in µg/L
- ND Non-detectable, FP Free product
  - † Well was inaccessible; filled with dirt
  - \* The lab reported that the hydrocarbons detected did not appear to be diesel.



# PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON OCTOBER 28, 1996



UNOCAL SERVICE STATION #5043 449 HEGENBERGER ROAD OAKLAND, CALIFORNIA FIGURE

2



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8

Redwood City, CA 9406 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Jarrel Crider Client Project ID: Matrix Descript: Analysis Method:

First Sample #:

Unocal #5043, 449 Hegenberger Rd. Water

Oakland Re

Sampled: Oct 28, 1996 Received: Oct 28, 1996

910-1595

EPA 5030/8015 Mod./8020

Reported:

Nov 14, 1996

# TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Purgeable Hydrocarbons $\mu$ g/L	Benzene μg/L	Toluene μg/L	Ethyl Benzene μg/L	Total Xylenes μg/L	<b>MTBE</b> μg/L
910-1595	MW-9	ND	ND	ND	ND	ND	7.6
910-1596	MW-10	ND	1.1	ND	ND	ND	ND

Detection Limits:	50	0.50	0.50	0.50	0.50	5.0

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard. Analytes reported as ND were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

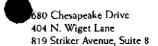
Signature on File

Alan B. Kemp Project Manager

Page 1 of 2







Redwood City, CA 9406 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Client Project ID: Matrix Descript: Analysis Method: Unocal #5043, 449 Hegenberger Rd. Water

Oakland

Sampled: Received: Oct 28, 1996 Oct 28, 1996

Attention: Jarrel Crider First Sample #:

: EPA 5030/8015 Mod./8020 910-1595 Reported:

Nov 14, 1996

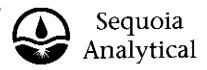
# TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Chromatogram Pattern	DL Mult. Factor	Date Analyzed	Instrument ID	Surrogate Recovery, % QC Limits: 70-130
910-1595	MW-9		1.0	11/11/96	HP-2	94
910-1596	MW-10		1.0	11/11/96	HP-2	94

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp Project Manager



680 Chesapeake Drive 404 N. Wiget Lanc 819 Striker Avenue, Suite 8

Redwood City, CA 9406 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services 2401 Stanwell Dr., Ste

i

2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Jarrel Crider Client Project ID: Sample Matrix:

Unocal #5043, 449 Hegenberger Rd. Water

ia. Oakland Sampled: Oct 2 Received: Oct 2

Oct 28, 1996 Oct 28, 1996

Analysis Method: First Sample #: EPA 3510/8015 Mod.

Reported:

Nov 14, 1996

#### TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

610-1595

Analyte	Reporting Limit μg/L	<b>Sample</b> I.D. 610-1595 MW-9	Sample I.D. 610-1596 MW-10		
Extractable					
Hydrocarbons	50	99	N.D.		
Chromatogram Pa	ttern:	Ųnidentified			
-		Hydrocarbons -			
		> C18			

**Quality Control Data** 

Report Limit Multiplication Factor:	1.0	1.0
Date Extracted:	11/1/96	11/1/96
Date Analyzed:	11/4/96	11/4/96
Instrument Identification:	HP-3A	HP-3A
'		

Extractable Hydrocarbons are quantitated against a fresh diesel standard. Analytes reported as N.D. were not detected above the stated reporting limit.

#### SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp Project Manager

#### Yease Note

\* This sample does not appear to contain diesel. "Unidentified Hydrocarbons > C18" refers to unidentified peaks in the total oil and grease range.





MPDS Services

2401 Stanwell Dr., Ste. 300

Concord, CA 94520 Attention: Jarrel Crider Client Project ID:

Unocal #5043, 449 Hegenberger Rd. Oakland Liquid

Matrix: Liquid

QC Sample Group: 6101594-596

Reported:

Nov 14, 1996

## QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl	Xylenes	Diesel	***
AWALITE		TOIGONO	Benzene	Ayleries	Diesei	
			Polizolia			
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015	
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Sharma	
MS/MSD						
เพอ/เพอบ Batch#:	6101632	6101632	6101632	6101632	BLK110196	
Daton#.	0101032	0101032	0101032	0101032	DEI(110190	
Date Prepared:	11/11/96	11/11/ <del>96</del>	11/11/96	11/11/96	11/1/96	
Date Analyzed:	11/11/96	11/11/96	11/11/96	11/11/96	11/4/96	
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A	
Conc. Splked:	20 μg/L	20 μg/L	$20\mu$ g/L	60 μg/L	$300\mu$ g/L	
Matrix Spike						
% Recovery:	100	105	115	110	80	
			• • •			
Matrix Spike						
Duplicate %						
Recovery:	100	105	115	112	83	
Relative %						
Difference:	0.0	0.0	0.0	1.5	4.1	
LCS Batch#:	2LC\$111196	2LC\$111196	2LCS111196	2LC\$111196	LC\$110196	
Data Decocard	44 (44 (44	44/44/88	44/44	معمد دورود	44747	
Date Prepared:	11/11/96	11/11/96	11/11/96	11/11/96	11/1/96	
Date Analyzed:	11/11/96	11/11/96	11/11/96	11/11/96	11/4/96	
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A	
LCS %						
Recovery:	95	100	110	105	83	
% Recovery			<del>_</del> -			
Control Limits:	60-140	60-140	60-140	60-140	60-140	

#### **SEQUOIA ANALYTICAL, #1271**

Signature on File

Alan B. Kemp Project Manager Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

EB)

DDS SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400

# CHAIN OF CUSTODY

564665

Concord Tel: (510	UNOCAL						TURN AROUND TIME:							
STEVE BALIAN		S/S # 5043 CITY: <u>OAKLAND</u>			I-GAS	TPH- DIESEL	G.		MTBE		REGULAR			
SAMPLE ID NO.	DATE	TIME	WATER	GRAB	сомр	NO. OF CONT.	SAMPLING LOCATION		TPI	TOG	8010	2		REMARKS
<del>*************************************</del>	10-28-76	12:40	X	X			merc	X				*		6101594 AB
MW- 9	"	//:45	X	X		3	"	X	X			$ \times $		6101595 <sup>1</sup>
Mw - 10	"	12:20	X	X		3	"	X	X		<u> </u>	$\times$		610 <b>1</b> 596 <b>/</b> /
														MW-3 CANCEUED MADER MISSAR NUESAR
RELINQUISHED BY: DATE/TIME RECEIVED B  /5:07  STEVE BALIAN /0_28-76  SIGNATURE)				ELECTIVED BY:	D	DATE/TIME THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANA  1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE?  2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED?								
(SIGNATURE)					(SIGNATURE)				DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE?  4. WERE SAMPLES IN APPRIOPRIATE CONTAINERS AND PROPERLY PACKAGED?					
				(SIGI	(SIGNATURE) // /5-05				SIGNATURE: forologies TITLE: MANY DATE: 10/13,					MANYER DATE: 10/13/5