

MPDS-UN5043-12 August 18, 1997

Tosco Marketing Company Environmental Compliance Department 2000 Crow Canyon Place, Suite 400 San Ramon, California 94583

Attention: Ms. Tina R. Berry

RE: Quarterly Data Report

Unocal Service Station #5043 449 Hegenberger Road Oakland, California

Dear Ms. Berry:

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 flow direction during the most recent quarter is shown on the attached Figure 1.

Ground water samples were collected on July 15, 1997. Prior to sampling, the wells were purged of between 4.5 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 Tosco 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-UN5043-12 August 18, 1997 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. Nubar Srabian at (510) 602-5120.

Sincerely,

MPDS Services, Inc.

Haig (Gary) Tejirian

Senior Staff Geologist

Hagop Kevork, P.E. Senior Staff Engineer

License No. C55734

Exp. Date December 31, 2000

Attachments: Tables 1 & 2

Location Map Figures 1 & 2

Laboratory Analyses

Chain of Custody documentation

cc: Mr. Sarkis A. Soghomonian, Kaprealian Engineering, Inc.

Table 1
Summary of Monitoring Data

	Ground Water	Depth to	Total Well	Product		Water
	Elevation	Water	Depth	Thickness		Purged
Vell#	(feet)	(feet)◆	(feet)*	(feet)	Sheen	(gallons)
		(Monitored a	nd Sampled on .	July 15, 1997)		
MW3	4.33	3.71	14.09	0	No	5.5
MW6*	4.56†	4.63	12.84	0.42	N/A	0[26 oz.]
MW7‡‡	4.13	4.70	13.19	0	No	4.5
MW8‡‡	5.03	3.49	14.87	0	No	6
MW9	6.39	1.90	11.95	0	No	5.5
MW10	4.43	4.19	12.81	0	No	4.5
		(Monitored	and Purged on .	July 9, 1997)		
MW6	4.53†	4.80	*	0.60	N/A	0[32 oz.]
		(Monitored a	and Purged on J	une 24, 1997)		
MW6	4.56†	4.50	*	0.25	N/A	0[32 oz.]
		(Monitored	and Purged on J	June 9, 1997)		
MW6	4.42†	4.60	*	0.20	N/A	0[30 oz.]
		(Monitored an	nd Sampled on J	une 1, 1997)**		
MW3	4.54	3.50	14.20	0	No	6
MW7‡‡	4.29	4.54	13.20	0	No	4.5
MW8‡‡	5.06	3.46	13.90	0	No	6
		(Monitored an	d Sampled on M	Iay 27, 1997)**		
MW3	4.59	3.45	14.20	0	No	6
MW6*	4.56†	4.50	12.90	0.25	N/A	0[zero oz.]
MW7‡‡	4.33	4.50	13.20	0	No	4.5
MW8‡‡	5.10	3.42	13.90	0	No	6
MW9*	7.24	1.05	13.00	0	No	0
MW10*	4.22	4,40	12.90	0	No	0
		(Monitored a	and Purged on N	May 15, 1997)		
MW6	4.46†	4.60	*	0.25	N/A	0[25 oz.]
		(Monitored a	und Purged on A	pril 28, 1 997)		
MW6	4.61†	4.78	*	0.03	N/A	0[25 oz.]

Table 1
Summary of Monitoring Data

	Ground Water	Depth to	Total Well	Product		Water
	Elevation	Water	Depth	Thickness		Purged
Well#	(feet)	(feet)◆	(feer)◆	(feet)	Sheen	(gallons)
		(Monitored as	nd Sampled on A	pril 15, 1997)		
MW3	WELL WAS INAC	CCESSIBLE - (OBSTRUCTED W	/ITH DEBRIS A'	Т А DEPTH (OF 1.61 FEET
MW6*	4.76†	4.90	12.74	1.03	N/A	0.5[65 oz.]
MW9	6.41	1.88	11.98	0	No	6
MW10	4.55	4.07	12.80	0	No	6
	(Monitored and	d Sampled on Jar	nuary 29, 1997)		
MW3	WELL WAS INAC	CCESSIBLE - (OBSTRUCTED W	VITH DEBRIS A	T A DEPTH (OF 1.65 FEET
MW6*	5.87†	3.24	12.75	0.31	N/A	0.25[17.5]
MW9	7.24	1.05	11.96	0	No	6.5
MW10	5.68	2.94	12.80	0	No	7
	(Monitored an	d Sampled on Oc	tober 28, 1996)		
MW3	WELL WAS INAC	CCESSIBLE (C	BSTRUCTED W	TTH DEBRIS)§		
MW6*	4.93†	4.10	12.85	0.21	N/A	0[17.5 oz.]
MW9	7.14	1.15	11.97	0	No	6
MW10	4.53	4.09	12.79	0	No	5

	Well Casing	
	Elevation	
Well#	(feet)***	
MW3‡	8.04	
MW6	8.87	
MW7‡‡	8.83	
MW8‡‡	8.52	
MW9	8.29	
MW10	8.62	

Table 1 Summary of Monitoring Data

- ♦ The depth to water level and total well depth measurements were taken from the top of the well casings.
- Monitored only.
- ** Data provided by Kaprealian Engineering, Inc.
- *** 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.
- Well MW3 was reconstructed in April 1997, and was resurveyed in May 1997. Prior to the May 27, 1997, monitoring and sampling event the surveyed well casing elevation of MW3 was 7.42 feet MSL.
- ‡‡ Wells MW7 and MW8 were installed in April 1997.
- [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			Ethyl-		
Well#	Date	Diesel	Gasoline	Benzene	Toluene	Benzene	Xylenes	MTBE
								
MW1	2/18/92	13,000	150,000	17,000	26,000	5,200	26,000	
	5/20/92	NOT SAMPL	ED DUE TO T	THE PRESEN	NCE OF FRE	E PRODUC	C T	
	8/31/92	8,900†	64,000	13,000	12,000	2,500	22,000	
	11/30/92	NOT SAMPL	ED DUE TO T	THE PRESEN	NCE OF FRE	E PRODUC	CT	
	2/4/93	NOT SAMPL	ED DUE TO T	THE PRESEN	NCE OF FRE	E PRODUC	CT	
	5/4/93	NOT SAMPL	ED DUE TO T	THE PRESEN	NCE OF FRE	E PRODUC	CT CT	
	8/4/93	NOT SAMPLE	ED DUE TO T	THE PRESEN	NCE OF FRE	E PRODUC	CT	
	11/3/93	NOT SAMPL	ED DUE TO T	THE PRESEN	NCE OF FRE	E PRODUC	CT	
	2/7/94	NOT SAMPL	ED DUE TO I	THE PRESE!	NCE OF FRE	E PRODUC	CT	
	5/19/94	NOT SAMPL	ED DUE TO T	THE PRESE	NCE OF FRE	E PRODUC	CT	
	8/15/94	NOT SAMPL	ED DUE TO T	THE PRESE	NCE OF FRE	E PRODUC	CT	
	11/14/94	NOT SAMPL	ED DUE TO T	THE PRESE	NCE OF FRE	E PRODUC	CT	
	2/21/95	NOT SAMPL	ED DUE TO T	THE PRESE	NCE OF FRE	E PRODUC	CT	
	5/18/95	WELL DESTI	ROYED IN M	ARCH 1995				
1.0010	0.11.0.700	4.300	20.000	4.000	5 000	260	7.000	
MW2	2/18/92	4,300	29,000	1,000	5,300	260	7,900	
	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	NOT SAMPL						
	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	WELL DEST	ROYED IN M	ARCH 1995				
MW3	2/18/92	ND	230	4.8	22	1.8	33	
2.2	5/20/92		INACCESSIBI			2.0		
	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
MW3	5/18/95	150†	1,300*	42	ND	ND	ND	
(Cont.)	8/17/95	WELL WAS	INACCESSIBI	LE (FILLED	WITH DIRT)		
	7/26/96	WELL WAS	INACCESSIBI	LE (FILLED	WITH DIRT)		
	10/28/96	WELL WAS	INACCESSIBI	LE (FILLED	WITH DIRT)§		
	1/29/97	WELL WAS	INACCESSIBI	LE - OBSTR	UCTED WIT	H DEBRIS A	AT A DEPT	H OF 1.65 FEE
	4/15/97	WELL WAS	INACCESSIBI	LE - OBSTR	UCTED WIT	H DEBRIS A	AT A DEPT	H OF 1.61 FEE
	5/27/97★		670	6.5	ND	ND	ND	250
	6/1/97★	610††						
	7/15/97	240††	240	ND	ND	ND	ND	49 0
MW4	8/31/92	0044	240**	NID	NTD	ND	0.54	
IVI VV 4	11/30/92	90†† 61	420**	ND	ND ND	ND ND	0.54 ND	
	2/4/93	ND	ND	ND	ND ND		ND ND	
	5/4/93 5/4/93	ND ND		ND	ND ND	ND ND	ND ND	
	8/4/93	81	110* 2 5 0**	0.95	ND	ND ND		
	11/3/93	68	130**	ND ND	3.5	ND ND	4.1 ND	
	2/7/94	ND	56**	ND ND	ND ND	ND ND	ND ND	
	5/19/94	90††	140**		ND ND	ND ND	ND ND	
	3/19/94 8/15/94	• •	59**	ND				
	11/14/94	72†† ND	130**	ND	0.6	ND ND	ND	
	2/21/95			ND	ND Nos	ND	ND	
	2/21/93	WELL DEST	ROYED IN JA	ANUARI IS	195			
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 DEST	ROYED IN JA	ANUARY 19	995			
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 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 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	
	Q(1J)/7 4	7 70 1 1	1,500	130	0.7	J 4	31	

Table 2
Summary of Laboratory Analyses
Water

		TPH as	TPH as			Ethyl-		
Well#	Date	Diesel	Gasoline	Benzene	Toluene	Benzene	Xylenes	MTBE
MW6	11/14/94	800††	730	50	ND	ND	39	
(Cont.)	2/21/95	730††	2,000	250	4.6	25	30	
` /	5/18/95	WELL WAS	•			_		
	8/17/95	WELL WAS			OVER)			
	7/26/96	NOT SAMPL		•	,	EE PRODUC	CT	
	10/28/96	NOT SAMPL						
	1/29/97	NOT SAMPL	ED DUE TO	THE PRESEN	ICE OF FR	EE PRODUC	CT	
	4/15/97	NOT SAMPL	ED DUE TO	THE PRESEN	NCE OF FR	EE PRODUC	CT	
	7/15/97	NOT SAMPL	ED DUE TO	THE PRESEN	NCE OF FR	EE PRODUC	CT	
MW7	5/27/97★		68	ND	ND	ND	ND	ND
	6/1/97★	69††						
	7/15/97	ND	ND	ND	ND	ND	ND	ND
MW8	5/27/97★		310	0.88	0.67	15	70	ND
	6/1/97★	320††						
	7/15/97	ND	ND	ND	ND	2.7	3.8	ND
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
	1/29/97	54	ND	ND	ND	ND	ND	5.4
	4/15/97	94†	ND	ND	ND	ND	ND	5.4
	7/15/97	ND	ND	ND	ND	ND	ND	ND
MW10	2/21/95	270††	1,500	250	26	9.1	160	
	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
	1/29/97	ND	210	41	0.67	7.2	4.8	11
	4/15/97	ND	110	12	ND	0.77	ND	9.7
	7/15/97	ND	ND	2.1	ND	0.67	0.73	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.

Table 2 Summary of Laboratory Analyses Water

- * 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.
 - ★ Analytical data provided by Kaprealian Engineering, Inc.

MTBE = Methyl tert butyl ether.

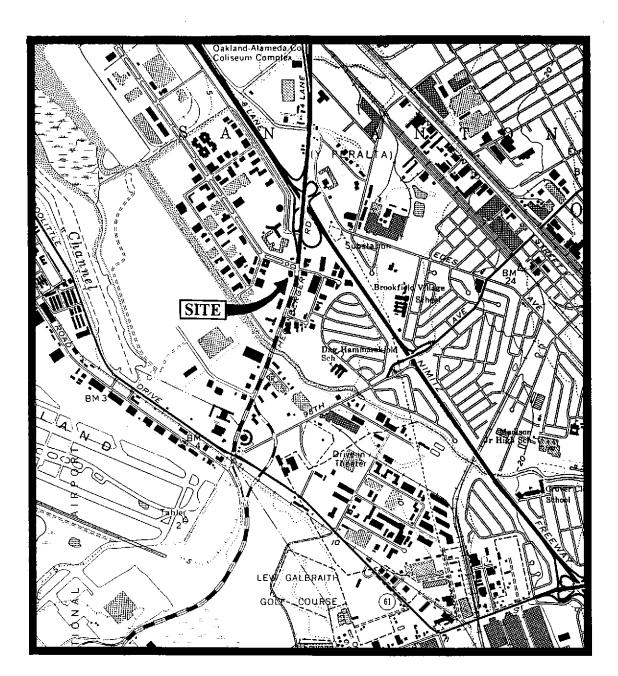
ND = Non-detectable.

Results are in micrograms per liter (µg/L), unless otherwise indicated.

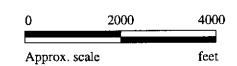
Note: The detection limit for results reported as ND by Sequoia Analytical Laboratory is equal to the stated detection limit times the dilution factor indicated on the laboratory analytical sheets.

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.

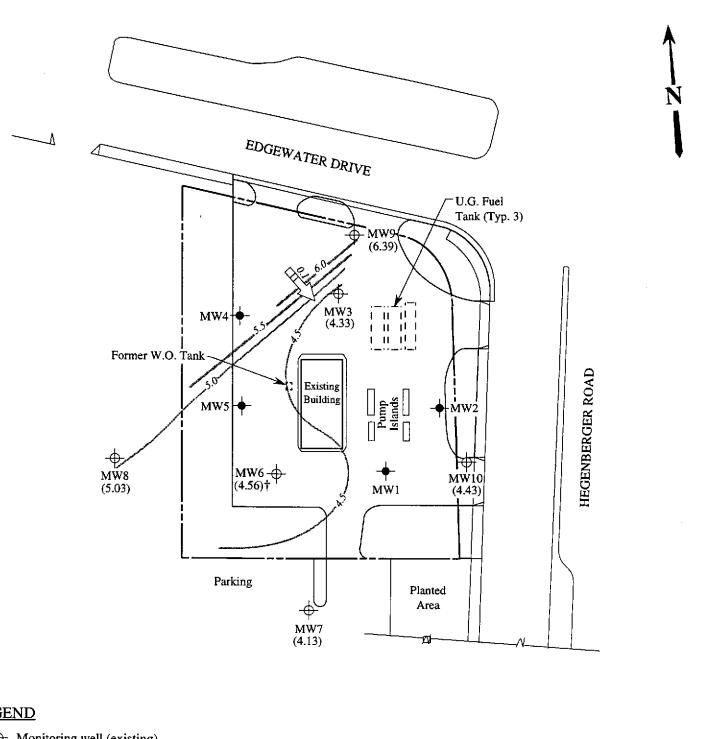


Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle (photorevised 1980)





UNOCAL SERVICE STATION #5043 449 HEGENBERGER ROAD OAKLAND, CALIFORNIA LOCATION MAP



LEGEND

Monitoring well (existing)

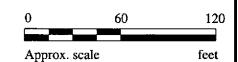
Monitoring well (destroyed)

Ground water elevation in feet above Mean Sea Level

Direction of ground water flow with approximate hydraulic gradient

Contours of ground water elevation

† Ground water elevation was corrected due to the presence of free product.

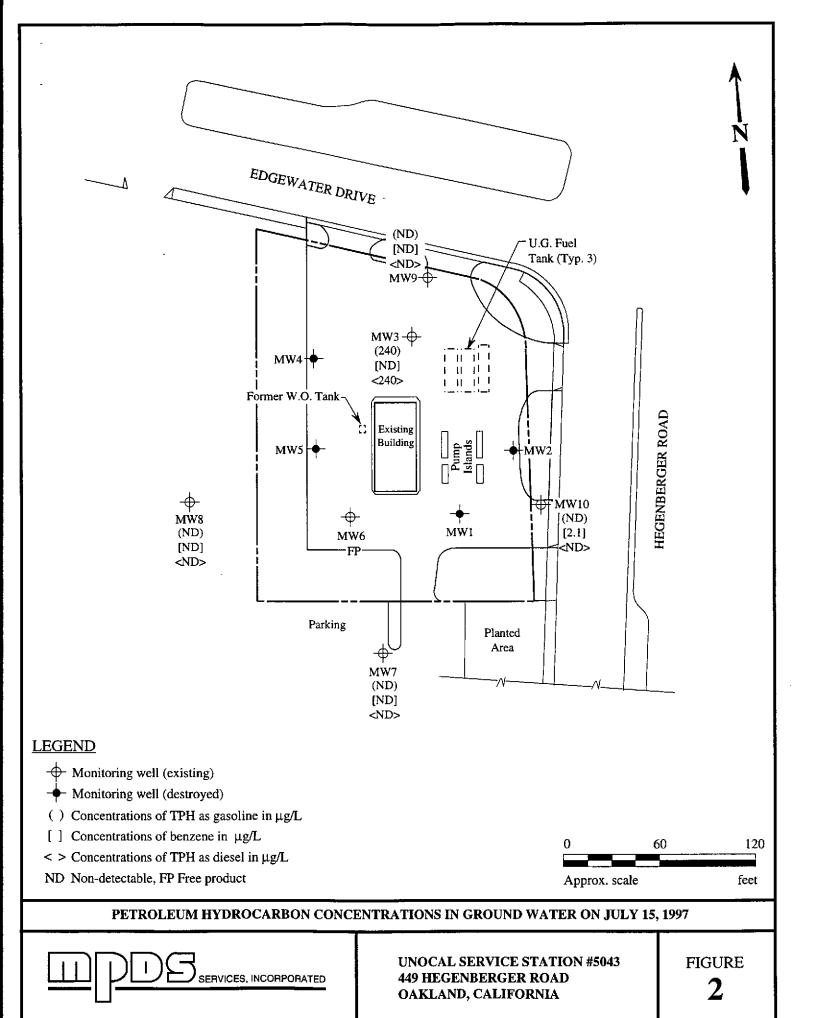


POTENTIOMETRIC SURFACE MAP FOR THE JULY 15, 1997 MONITORING EVENT



UNOCAL SERVICE STATION #5043 449 HEGENBERGER ROAD OAKLAND, CALIFORNIA

FIGURE





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

Redwood City, CA 94063 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:

· Tosco #5043, 449 Hegenberger Rd. Oakland Sampled:

Received:

Jul 15, 1997

Matrix Descript: Analysis Method: First Sample #:

Water EPA 5030/8015 Mod./8020

Reported:

Jul 15, 1997 Jul 31, 1997

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

707-0889

Sample Number	Sample Description	Purgeable Hydrocarbons μg/L	Benzene μg/L	Toluene μg/L	Ethyl Benzene µg/L	Total Xylenes μg/L
707-0889	MW-3	240	ND	ND	ND	ND
707-0890	MW-7	ND	ND	ND	ND	ND
707-0891	MW-8	ND	ND	ND	2.7	3.8
707-0892	MW-9	ND	ND	ND	ND	ND
707-0893	MW-10	ND	2.1	ND	0.67	0.73

I Detection Limits:		50 0) E O	N EN	V EU	
Detection Links.	JU U.	.50 (າ.ວບ ່	บ.อบ	0.50	- 1

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 94063 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:

: Tosco #5043, 449 Hegenberger Rd. Oakland Water

Sampled: Received: Jul 15, 1997 Jul 15, 1997

Analysis Method: First Sample #:

EPA 5030/8015 Mod./8020

Reported:

Jul 31, 1997

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

707-0889

Sample Number	Sample Description	Chromatogram Pattern	DL Mult. Factor	Date Analyzed	Instrument ID	Surrogate Recovery, % QC Limits: 70-130
707-0889	МW-3	Gasoline	4.0	7/24/97	HP-2	78
707-0890	MW-7		1.0	7/24/97	HP-2	81
707-0891	MW-8		1.0	7/24/97	HP-2	77
707-0892	e-WM		1.0	7/24/97	HP-2	81
707-0893	MW-10		1.0	7/24/97	HP-2	82

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp Project Manager





Redwood City, CA 94063 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: Sample Descript: Analysis for:

First Sample #:

Tosco #5043, 449 Hegenberger Rd. Oakland Water

MTBE (Modified EPA 8020) 707-0889

Sampled: Received:

Jul 15, 1997 Jul 15, 1997

Analyzed: Reported:

Jul 24, 1997 Jul 31, 1997

LABORATORY ANALYSIS FOR:

MTBE (Modified EPA 8020)

Sample Number	Sample Description	Detection Limit μg/L	Sample Result $\mu \mathrm{g}/\mathrm{L}$
707-0889	MW-3	10	490
707-0890	MW-7	5.0	N.D.
707-0891	MW-8	5.0	N.D.
707-0892	MW-9	5.0	N.D.
707-0893	MW-10	5.0	N.D.

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

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp Project Manager





Redwood City, CA 94063 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: Sample Matrix:

: Tosco #5043, 449 Hegenberger Rd. Oakland

Tosco #5043, 449 Hegenberger Rd. Oakland Water

Analysis Method: EPA 3510/8015 Mod.

First Sample #: 707-0889

Sampled:

Jul 15, 1997

Received: Jul 15, 1997 Reported: Jul 31, 1997

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit μg/L	Sample I.D. 707-0889 MW-3 ^	Sample I.D . 707-0890 MW-7	Sample I.D. 707-0891 MW-8	Sample I.D. 707-0892 MW-9	Sample I.D. 707-0893 MW-10	
Extractable Hydrocarbons	50	240	N.D.	N.D.	. N.D .	N.D.	
Chromatogram Pa	ttern:	Diesel & Unidentified Hydrocarbons >C20					

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Extracted:	7/22/97	7/22/97	7/22/97	7/22/97	7/22/97
Date Analyzed:	7/25/97	7/25/97	7/25/97	7/25/97	7/25/97
Instrument Identification:	HP-3	HP-3	HP-3	HP-3	HP-3

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 Please Note:

^ This sample appears to contain diesel and non-diesel mixtures. " Unidentified Hydrocarbons

> C20", refers to unidentified peaks in the total oil & grease range.



Redwood City, CA 94063 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:

Tosco #5043, 449 Hegenberger Rd. Oakland

Matrix: Liquid

QC Sample Group: 7070889-893

Reported:

Jul 31, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl	Xylenes	Diesel				
			Benzene						
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015				
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	K. Grubb				
MS/MSD									
Batch#:	7070892	7070892	7070892	7070892	BLK072397				
Date Prepared:	7/24/97	7/24/97	7/24/97	7/24/97	7/23/97				
Date Analyzed:	7/24/97	7/24/97	7/24/97	7/24/97	7/25/97				
Instrument i.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A				
Conc. Spiked:	20 μg/L	20 μg/L	20 μg/L	60 μg/L	300 μg/L				
Matrix Spike % Recovery:	85	100	95	97	64				
Matrix Spike Duplicate % Recovery:	85	105	100	98	73				
Relative % Difference:	0.0	4.9	5.1	1.7	15				
LCS Batch#:	2LCS072497	2LCS072497	2LCS072497	2LCS072497	LCS072297				
Date Prepared:	7/24/97	7/24/97	7/24/97	7/24/97	7/22/97				
Date Analyzed:	7/24/97	7/24/97	7/24/97	7/24/97	7/29/97				
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A				
LCS %									
Recovery:	80	95	90	93	53				
% Recovery 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.

M P D S Services, Inc.

2401 Stanwell Drive, Suite 400, Concord, CA 94520 Tel: (510) 602-5120 Fax: (510) 689-1918

CHAIN OF CUSTODY

9707202

SAMPLER PALIAN			TOSCO SIS # 5043 CITY: OAKLAND					ANALYSES REQUESTED								TURN AROUND TIME:	
STEVE BALIAN WITNESSING AGENCY (LAND LIE WEST TO A ROLL			TPH-G/ BTEX	H-D	, 12	0/0	<i>y</i>				REGULAR			
SAMPLE ID NO.	DATE	TIME	WATER	GRAB	СОМР	NO, OF CONT.	SAMPLING LOCATION	17. 18.	TPH	×	8	-				REMARKS	
MW- 3 2	7-15-97	12:50	X	X		3	WELL	X	Х	X	7	070	89			MTBE	
Mw- 7	"	//: /o	X	X		3	,	X	X	Y	•	070	350			5 649	
MW- 8	"/	/2:00	X	X		3	1)	X	X	X	"	070	91				
Mu- 9	"	10:30	X	X		3	U	X	X	X		7070	<u> </u>			MW-8	
Mu-10	11	/3:30		X		3	4,	X	X	X		707	1893			RINSED (Hd)	
									,.								
		,		<u> </u>													
-																·	
				\		<u></u>											
																	
RELINQUISHED BY: DATE/THE		10	1/10			TE/TIME THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES: 1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE?											
STEVE BALIAN 7-15-				(SIGNATURE)				2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? 3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE?									
(SIGNATURE)				(SIGNATURE)							. ^						
(SIGNATURE)				(SIGNATURE)					4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? SIGNATURE: May TITLE May DATE: 7/5/97								
(SIGNATURE)				(SIGNATURE)					SIGNAT	URE:	y a	un	<u>z. </u>	TITLE #	naug	<u> </u>	