M P D S
SERVICES, INCORPORATED

MPDS-UN5366-01
March 21, 1994

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

Attention: Mr. Edward C. Ralston

RE: Quarterly Data Report
Unocal Service Station #5366
7375 Amador Valley Boulevard
Dublin, California

Dear Mr. Ralston:

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

A joint monitoring and sampling event was conducted with the consultants for the nearby former Shell, BP, and Arco service station sites on February 11, 1994. The monitoring data collected for the former Shell, BP, and Arco service stations are summarized in Tables 2, 3, and 4, respectively. The ground water flow direction in the vicinity of these sites during the most recent quarter is also shown on the attached Figure 1.

Ground water samples were collected from the Unocal wells on February 11, 1994. Prior to sampling, the Unocal wells were each purged of between 6.5 and 7 gallons of water. During purging operations, the field parameters pH, temperature, and electrical conductivity were recorded and are presented in Table 5. Once the field parameters were observed to stabilize, and where possible, a minimum of approximately four casing volumes had been removed from each well, 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.

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

ANALYTICAL RESULTS

The ground water samples collected from the Unocal wells 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 from the Unocal wells to date are summarized in Tables 5 and 6. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline and benzene detected in the ground water samples collected from the Unocal wells this quarter are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation for the Unocal wells are attached to this report.

DISTRIBUTION

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

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

Sincerely,

MPDS Services, Inc.

Talin Kaloustian
Staff Engineer

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

License No. EG 1633
Exp. Date 6/30/94

/dlh

Attachments: Tables 1 through 6
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Thomas Berkins, Kaprealian Engineering, Inc.

TABLE 1

SUMMARY OF MONITORING DATA
UNOCAL MONITORING WELLS

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thickness (feet)	Sheen	Water Purged (gallons)	Total Well Depth (feet)◆
(Monitored and Sampled on February 11, 1994)						
MW1	326.35	9.72	0	No	7	19.46
MW2	326.93	9.85	0	No	6.5	19.23
MW3	326.97	10.01	0	No	6.5	18.90
MW4	326.33	10.10	0	No	6.5	19.40
MW5	325.88	10.08	0	No	7	19.96
(Monitored and Sampled on November 11, 1993)						
MW1	325.91	10.17	0	No	7	
MW2*	326.27	10.51	0	--	0	
MW3*	326.34	10.64	0	--	0	
MW4*	325.94	10.48	0	--	0	
(Monitored and Sampled on August 12, 1993)						
MW1	326.17	9.91	0	No	6.5	
MW2*	326.67	10.11	0	--	0	
MW3*	326.64	10.34	0	--	0	
MW4*	326.10	10.32	0	--	0	
(Monitored and Sampled on May 10, 1993)						
MW1	327.15	9.57	0	No	10	
MW2*	327.61	9.75	0	--	0	
MW3*	327.62	9.91	0	--	0	
MW4*	327.10	9.90	0	--	0	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA
UNOCAL MONITORING WELLS

Well #	Well Cover Elevation (feet)**	Well Casing Elevation (feet)**
MW1	336.72	336.07
MW2	337.36	336.78
MW3	337.53	336.98
MW4	337.00	336.43
MW5	336.32	335.96

♦ The depth to water level and total well depth measurements were taken from the top of the well casings. Prior to August 12, 1993, the depth to water level and total well depth measurements were taken from the top of the well covers.

* Monitored only.

** The elevations of the top of the well covers and well casings have been surveyed relative to Mean Sea Level (MSL), per the County of Alameda Benchmark, standard brass disk in the westerly center island of Amador Valley Boulevard at Village Parkway, 15 feet from the nose and 0.8 feet from the northerly curb, stamped "VL PK AM VY, 1977" (elevation = 337.40 Mean Sea Level).

-- Sheen determination was not performed.

Note: Monitoring data prior to February 11, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 2

SUMMARY OF MONITORING DATA
Shell Service Station Wells
(Provided by Pacific Environmental Group, Inc.)

Well #	Ground Water Elevation (feet)	Depth to Water (feet)	Well Casing Elevation (feet)
	(Monitored on February 11, 1994)		
MW1	326.21	8.62	334.83
MW2	325.92	11.04	336.96
MW3	326.25	10.68	336.93
MW4	326.43	10.71	337.14
MW5	325.99	8.97	334.96
MW6	326.40	9.02	335.42
MW7	327.11	6.12	333.23
MW8	327.00	8.80	335.80
MW9	325.69	8.88	334.57
MW11	325.99	8.21	334.20
MW12	325.35	7.18	332.53
MW13	326.52	9.12	335.64
RW1	N/A	9.98	N/A

N/A = Not Applicable.

TABLE 3

SUMMARY OF MONITORING DATA
BP Service Station Wells
(Provided by Alisto Engineering Group)

Well #	Ground Water Elevation (feet)	Depth to Water (feet)	Well Casing Elevation (feet)
	(Monitored on February 11, 1994)		
MW1	326.45	8.72	335.17
MW2	326.48	8.10	334.58
MW3	326.53	8.60	335.13
AW4	326.57	6.84	333.41
AW5	326.61	8.20	334.81
AW6	326.86	8.04	334.90

TABLE 4

SUMMARY OF MONITORING DATA
Arco Service Station Wells
(Provided by RESNA)

Well #	Ground Water Elevation (feet)	Depth to Water (feet)	Well Casing Elevation (feet)*
	(Monitored on February 11, 1994)		
MW1	326.21	10.35	336.56
MW2	326.21	8.59	334.80
MW3	325.93	9.60	335.53
MW4	326.07	8.15	334.22
MW5	326.24	9.63	335.87
MW6	326.18	9.66	335.84

* The benchmark used for the survey is a standard Bronze Disk in the westerly center island of Amador Valley and Village Parkway, 15 feet from nose and 0.8 feet +/- from northerly curb. The disk is stamped "VL-PK-AM-VY 1977" (El. = 337.402').

TABLE 5

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
2/11/94	MW1	970	40	3.2	2.8	15
	MW2	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND
	MW5	18,000	2,400	140	920	3,100
11/11/93	MW1	350	19	2.5	2.7	3.4
8/12/93	MW1	1,000	46	ND	29	6.3
5/10/93	MW1	1,600	39	0.40	25	3.3
2/10/93	MW1	3,000	230	ND	340	200
	MW2	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND
11/10/92	MW1	1,100	49	ND	71	21
8/12/92	MW1	1,700	51	ND	93	21
5/22/92	MW1	2,500	120	ND	230	37
	MW2	ND	ND	ND	ND	ND
2/25/92	MW1	3,900	500	ND	450	400
11/13/91	MW1	860	40	ND	11	2.5
8/12/91	MW1	1,100	68	2.6	210	9.3
5/15/91	MW1	2,100	220	ND	360	27
2/14/91	MW1	1,900	150	2.9	340	43
11/14/90	MW1	2,000	110	0.52	410	16

TABLE 5 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
8/15/90	MW1	2,200	160	ND	570	45
5/18/90	MW1	2,000	140	1.8	460	19
	MW2	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND
2/06/90	MW1	2,700	170	ND	350	29
	MW2	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND
10/20/89	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	0.38	ND
	MW4	ND	ND	ND	ND	ND
7/27/89	MW1	1,900	130	6.3	ND	68
	MW2	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND
	MW4	ND	0.34	ND	ND	ND
5/22/89	MW3	ND	ND	ND	ND	ND
4/28/89	MW1	1,000	97	0.8	170	24
	MW2	ND	ND	ND	ND	ND
	MW3	880	9.6	9.7	19	12.7
	MW4	ND	0.3	ND	ND	ND
1/26/89	MW1	1,900	240	1.8	81	30
	MW2	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND
	MW4	ND	0.67	ND	ND	ND

TABLE 5 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
10/28/88	MW1	5,200	150	ND	250	12
	MW2	ND	ND	ND	ND	ND
	MW3	--	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND
7/25/88	MW1	6,100	170	2.1	94	94
	MW2	ND	ND	ND	ND	ND
	MW3	--	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND
4/29/88	MW1	10,000	960	17	870	1,500
	MW2	170	2.7	0.6	ND	13
	MW3	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND

ND = Non-detectable.

-- Indicates that analysis was not performed.

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

Note: Laboratory analyses data prior to February 11, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 6

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Diesel	TOG (mg/L)	EPA 8010 Constituents
2/11/94	MW3	ND	ND	--
	MW5	2,300*	--	--
5/10/93	MW1	730*	--	--
2/10/93	MW3	200	ND	--
5/18/90	MW3	ND	ND	ND
2/06/90	MW3	ND	ND	ND
10/20/89	MW3	ND	2.5	ND
7/27/89	MW3	ND	1.6	ND
5/22/89	MW3	--	--	--
4/28/89	MW3	72	ND	ND
1/26/89	MW3	ND	--	ND
10/28/88	MW3	ND	--	ND
7/25/88	MW3	ND	--	ND
4/29/88	MW3	ND	--	ND

* Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

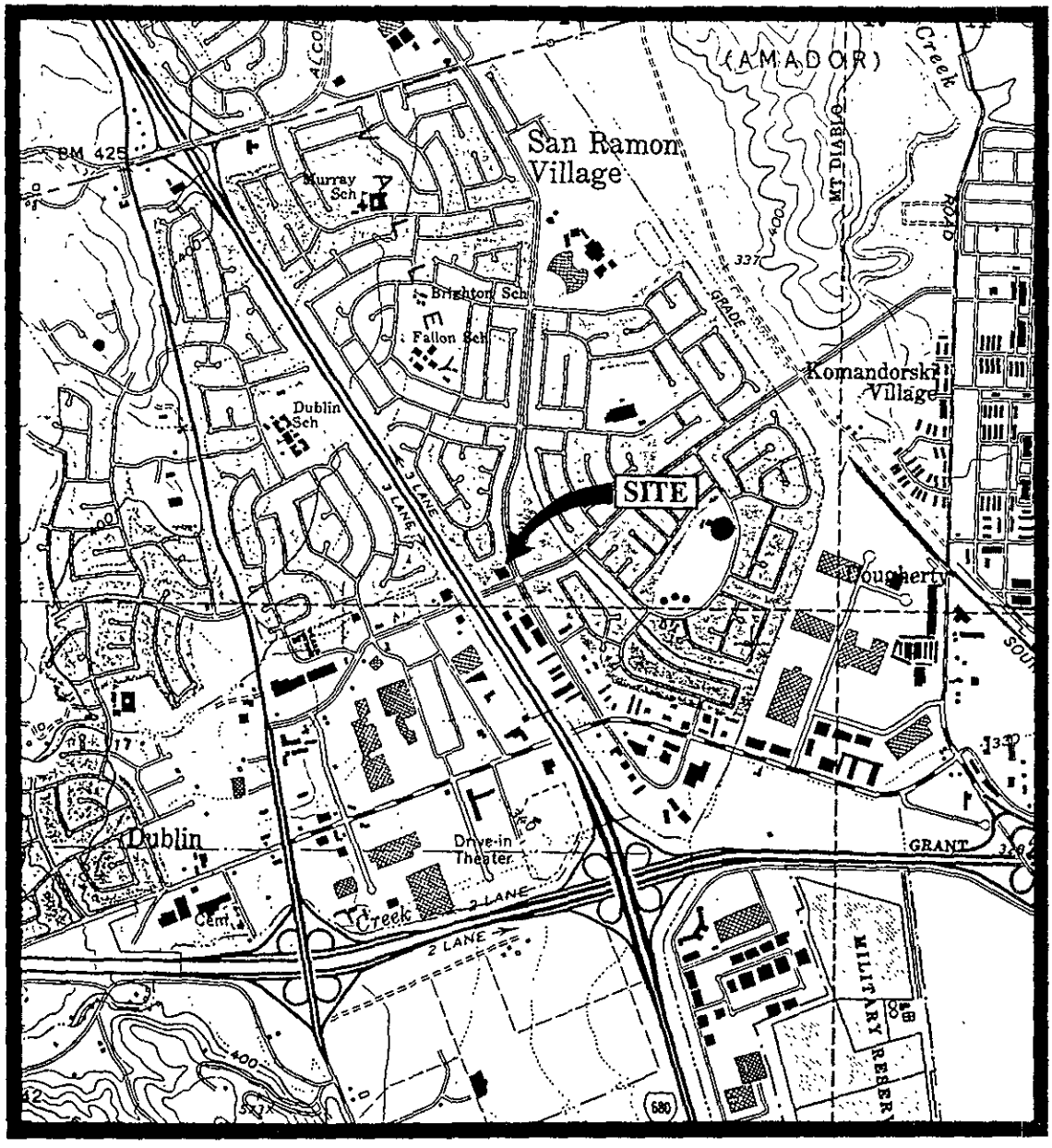
ND = Non-detectable.

-- Indicates analysis was not performed.

mg/L = milligrams per liter.

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

Note: Laboratory analyses data prior to February 11, 1994, were provided by Kaprealian Engineering, Inc.

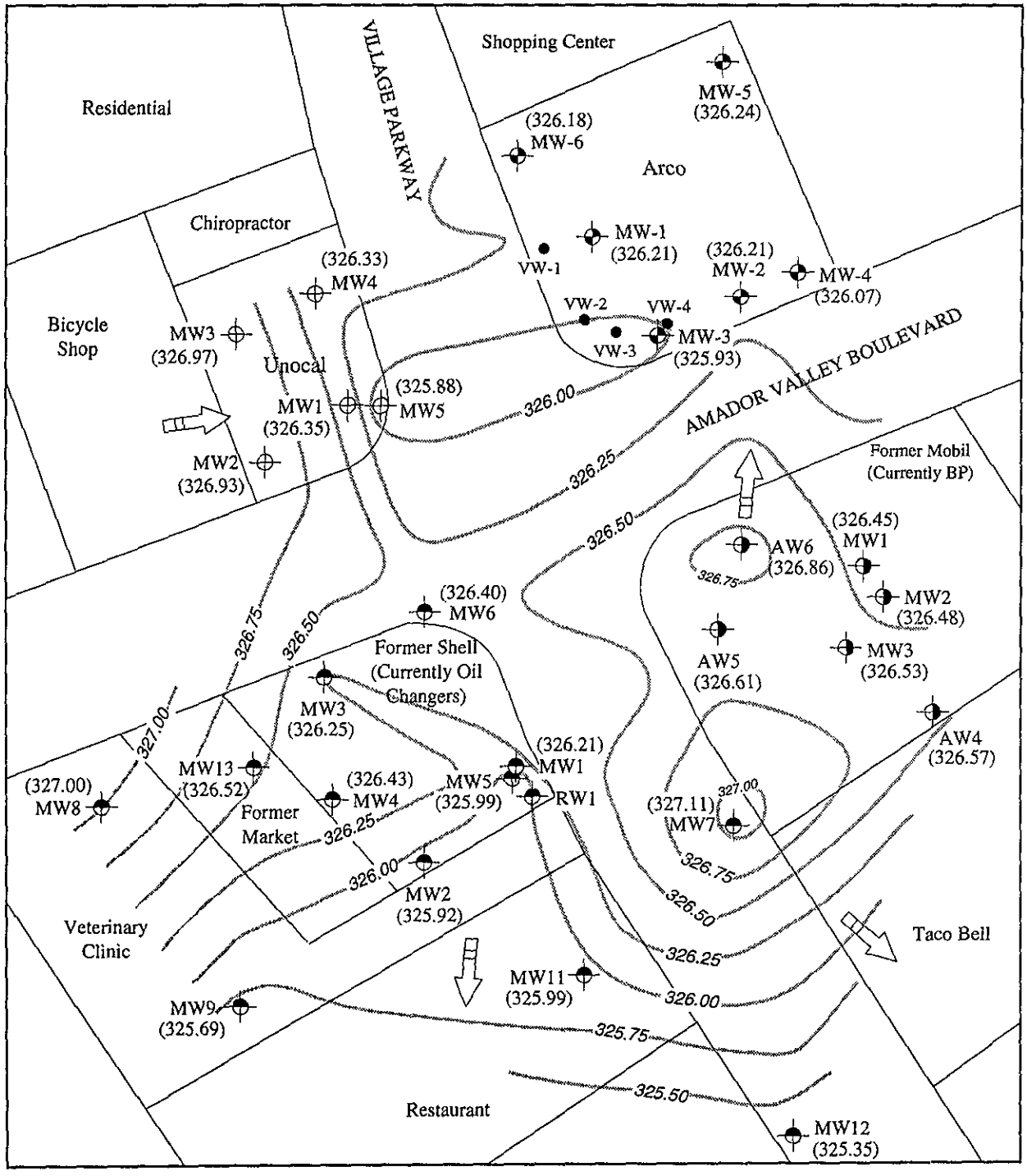


Base modified from 7.5 minute U.S.G.S. Dublin Quadrangle
(photorevised 1980)

0 2000 4000

Approx. scale feet

M P D S SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #5366** **7375 AMADOR VALLEY BLVD.** **DUBLIN, CALIFORNIA**	**LOCATION MAP**



LEGEND

- Monitoring well (Unocal)
- Monitoring well (BP)
- Monitoring well (Shell)
- Monitoring well (Arco)
- Vapor extraction well (Arco)
- ( ) Ground water elevation in feet above Mean Sea Level
- Contours of ground water elevation
- Direction of ground water flow

0 100 200

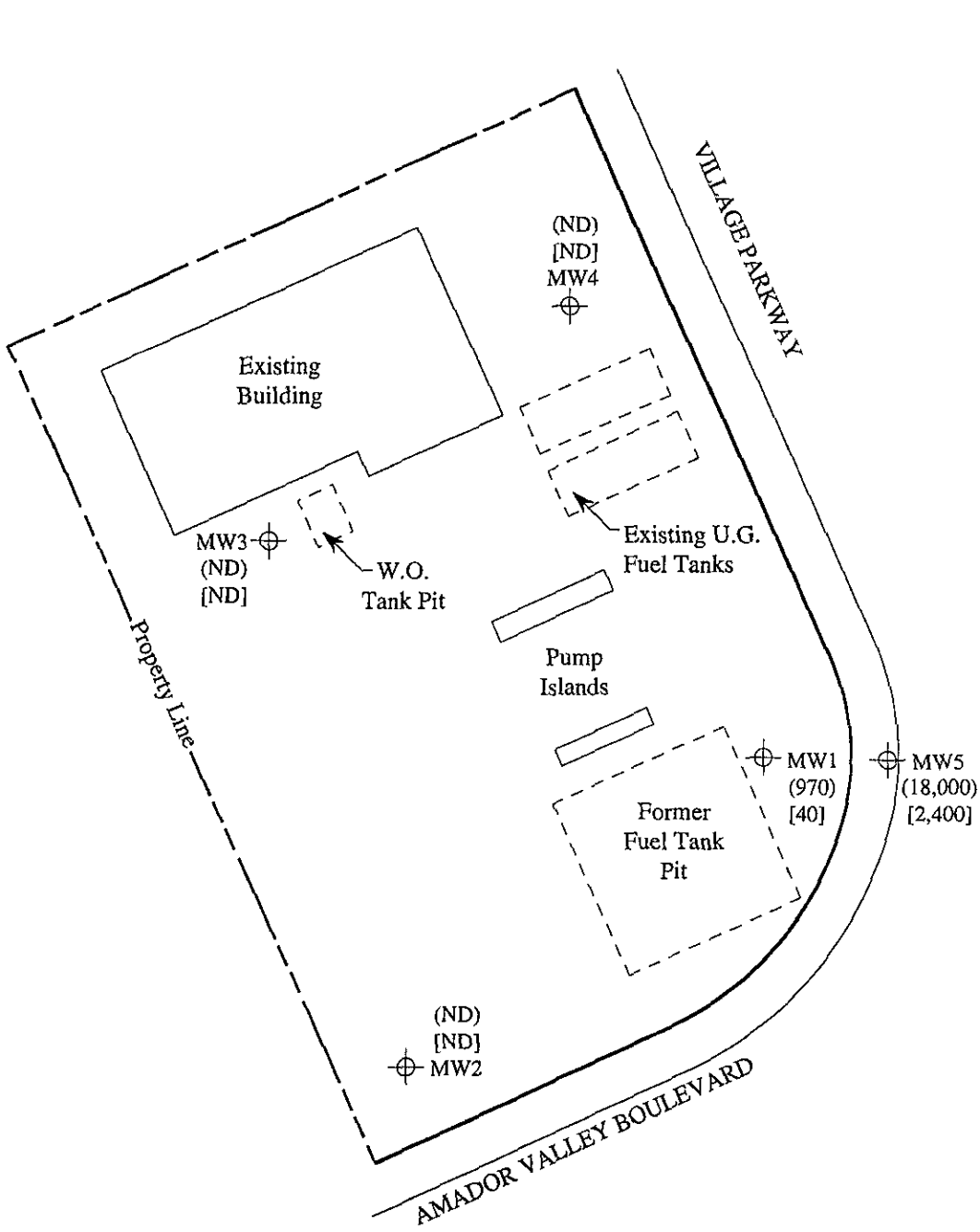
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE FEBRUARY 11, 1994 JOINT MONITORING EVENT

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #5366
7375 AMADOR VALLEY BLVD.
DUBLIN, CALIFORNIA

FIGURE
1



LEGEND

- Monitoring well
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L

ND = Non-detectable

0 30 60

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON FEBRUARY 11, 1994

M P D S SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #5366** **7375 AMADOR VALLEY BLVD.** **DUBLIN, CALIFORNIA**	FIGURE **2**

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.	Client Project ID:	Unocal #5366, 7375 Amador Valley Rd., Dublin	Sampled:	Feb 11, 1994
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water	Received:	Feb 11, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Feb 28, 1994
Attention: Avo Avedissian	First Sample #:	402-0750		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 402-0750 MW-1	Sample I.D. 402-0751 MW-2	Sample I.D. 402-0752 MW-3	Sample I.D. 402-0753 MW-4	Sample I.D. 402-0754 MW-5	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	50	970	N.D.	N.D.	N.D.	18,000	
Benzene	0.5	40	N.D.	N.D.	N.D.	2,400	
Toluene	0.5	3.2	N.D.	N.D.	N.D.	140	
Ethyl Benzene	0.5	2.8	N.D.	N.D.	N.D.	920	
Total Xylenes	0.5	15	N.D.	N.D.	N.D.	3,100	
Chromatogram Pattern:		Gasoline	--	--	--	Gasoline	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	100	1.0
Date Analyzed:	2/24/94	2/24/94	2/24/94	2/24/94	2/24/94	2/24/94
Instrument Identification:	ML #2	ML #2	ML #2	ML #2	ML #2	ML #2
Surrogate Recovery, %: (QC Limits = 70-130%)	90	90	90	93	94	97

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

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.	Client Project ID:	Unocal #5366, 7375 Amador Valley Rd., Dublin	Sampled:	Feb 11, 1994
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water	Received:	Feb 11, 1994
Concord, CA 94520	Analysis Method:	EPA 3510/3520/8015	Reported:	Feb 28, 1994
Attention: Avo Avedissian	First Sample #:	402-0752		

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 402-0752 MW-3	Sample I.D. 402-0754 MW-5*	Sample I.D. Matrix Blank
Extractable Hydrocarbons	50	N.D.	2,300	
Chromatogram Pattern:		--	Diesel and Unidentified Hydrocarbons <C16	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Extracted:	2/18/94	2/18/94	2/18/94
Date Analyzed:	2/24/94	2/24/94	2/24/94
Instrument Identification:	HP-3A	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

Alan B. Kemp
Project Manager

Please Note:

* This sample appears to contain diesel and a non-diesel mixture. "Unidentified Hydrocarbons <C16" are probably gasoline.

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.	Client Project ID:	Unocal #5366, 7375 Amador Valley Rd., Dublin	Sampled:	Feb 11, 1994
2401 Stanwell Dr., Ste. 400	Matrix Descript:	Water	Received:	Feb 11, 1994
Concord, CA 94520	Analysis Method:	SM 5520 BF (Gravimetric)	Extracted:	Feb 23, 1994
Attention: Avo Avedissian	First Sample #:	402-0752	Analyzed:	Feb 25, 1994
			Reported:	Feb 28, 1994

TOTAL RECOVERABLE OIL & GREASE

Sample Number	Sample Description	Oil & Grease mg/L (ppm)
402-0752	MW-3	N.D.

Detection Limits:	**5.0**

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

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #5366, 7375 Amador Valley Rd., Dublin
Matrix: Liquid
QC Sample Group: 4020750-54

Reported: Feb 28, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Oil & Grease
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015	SM 5520 BF
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen	M. Nguyen	K. Wimer	K. Wimer
MS/MSD Batch#:	4020752	4020752	4020752	4020752	BLK021894	BLK022394
Date Prepared:	2/24/94	2/24/94	2/24/94	2/24/94	2/18/94	2/23/94
Date Analyzed:	2/24/94	2/24/94	2/24/94	2/24/94	2/24/94	2/25/94
Instrument I.D.#:	ML #2	ML #2	ML #2	ML #2	HP-3A	N.A.
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	5,000 mg/L
Matrix Spike % Recovery:	110	110	115	110	86	93
Matrix Spike Duplicate % Recovery:	105	105	105	102	87	98
Relative % Difference:	4.7	4.7	9.1	7.5	1.2	5.2
LCS Batch#:	LCS022494	LCS022494	LCS022494	LCS022494	BLK021894	BLK022394
Date Prepared:	2/24/94	2/24/94	2/24/94	2/24/94	2/18/94	2/23/94
Date Analyzed:	2/24/94	2/24/94	2/24/94	2/24/94	2/24/94	2/25/94
Instrument I.D.#:	ML #2	ML #2	ML #2	ML #2	HP-3A	N.A.
LCS % Recovery:	95	95	100	95	86	93
% Recovery Control Limits:	71-133	72-128	72-130	71-120	28-122	75-125

SEQUOIA ANALYTICAL

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.

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #5366, 7375 Amador Valley Rd., Dublin

QC Sample Group: 4020752-54

Reported: Feb 28, 1994

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015	EPA 8015	EPA 8015
Analyst:	K. Wimer	K. Wimer	K. Wimer
Reporting Units:	µg/L	µg/L	µg/L
Date Analyzed:	2/24/94	2/24/94	2/24/94
Sample #:	402-0752	402-0754	Matrix Blank
Surrogate % Recovery:	81	89	94

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

MPDS
Services, Inc.

CHAIN OF CUSTODY

SAMPLER: Vazkes Tashjian
WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal #5366 / Dublin
7375 Amador Valley Rd.

ANALYSES REQUESTED: TPHG + BTXE; TPHD; TOG (5520 B&F)

TURN AROUND TIME: Regular

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPHG + BTXE	TPHD	TOG (5520 B&F)	REMARKS
MW 1	2/11/94			X	X		2	MW	X			4020750 A-B
MW 2	"			X	X		2	"	X			751 A-B
MW 3	"			X	X		4	"	X	X	X	752 A-D
MW 4	"			X	X		2	"	X			753 A-B
MW 5	"			X	X		3	"	X	X		754 A-C

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
W. Tashjian	2/11/94 4:00	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
J Atencio	2/14 1230	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	2/14 1400	Melissa Crousere
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
		Kim E. Ann

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice? Y
2. Will samples remain refrigerated until analyzed? Y
3. Did any samples received for analysis have head space? N
4. Were samples in appropriate containers and properly packaged? Y

Signature _____ Title _____ Date _____

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510.602.5100 Fax: 510.687.0602