KAPREALIAN ENGINEERING
INCORPORATED

KEI-P90-1103.QR4
July 27, 1992

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

Attention: Mr. Tim Howard

RE: Quarterly Report
Unocal Service Station #0752
800 Harrison Street
Oakland, California

Dear Mr. Howard:

This report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by Kaprealian Engineering, Inc. (KEI), per KEI's proposal KEI-P90-1103.P1 dated February 1, 1991. The wells are currently monitored monthly and sampled on a quarterly basis. This report covers the work performed by KEI from **April through June of 1992.**

A site description, background information including a summary of all of the soil and ground water subsurface investigation/remediation work conducted to date, site hydrogeologic conditions, and tables that summarize all of the soil and ground water sample analytical results are presented in KEI's report (KEI-P90-1103.QR3) dated April 30, 1992.

RECENT FIELD ACTIVITIES

The three wells (MW1, MW2, and MW3) were monitored three times and were sampled once during the quarter. During monitoring, the wells were checked for depth to water and the presence of free product. During sampling, the wells were also checked for the presence of sheen. **No free product or sheen was noted in any of the wells during the quarter.** The monitoring data collected this quarter are summarized in Table 1.

Water samples were collected from the wells on June 30, 1992. Prior to sampling, the wells were each purged of between 8 and 9 gallons by the use of a surface pump. The samples were then collected by the use of 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 and stored in a cooler, on ice, until delivery to the state-certified laboratory.

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

HYDROLOGY

The measured depth to ground water at the site on June 30, 1992, ranged between 19.86 and 21.01 feet below grade. The water levels in all of the wells have shown net decreases ranging from 0.10 to 0.21 feet since April 2, 1992. Based on the water level gathered on June 30, 1992, the ground water flow direction appeared to be to the south, as shown on the attached Figure 1. The flow direction reported this quarter is similar to the flow direction reported in the previous three quarters. The average hydraulic gradient across the site on June 30, 1992, was approximately 0.008.

ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030/modified 8015, and benzene, toluene, xylenes, and ethylbenzene (BTX&E) by EPA method 8020. In addition, the ground water sample collected from monitoring well MW1 was analyzed for TPH as diesel by EPA method 3510/modified 8015, total oil and grease (TOG) by Standard Methods 5520B&F, EPA method 8010 constituents, and the metals cadmium, chromium, nickel, lead, and zinc.

The ground water sample analytical results are summarized in Tables 2, 3, and 4. The concentrations of TPH as gasoline 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 Chain of Custody documentation are attached to this report.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results for the ground water samples collected and evaluated to date, and no evidence of free product or sheen in any of the wells, KEI recommends the continuation of the current monitoring and sampling program of the existing wells, per KEI's proposal (KEI-P90-1103.P1) dated February 1, 1991. However, TOG and the metal cadmium have been non-detectable in MW1 since the sampling program was initiated on June 5, 1991 (one hydrologic cycle). In addition, the concentrations of chromium, lead, nickel, and zinc have consistently been below the EPA's Maximum Contaminant Levels for drinking water. Therefore, KEI recommends that the TOG, cadmium, chromium, lead, nickel, and zinc analyses for MW1 be discontinued.

Separate data

KEI previously concluded that only limited soil contamination is present at the site, specifically at MW1 at depths of 5 to 15 feet below grade, at the area of the southern most fuel dispenser and at the central areas of the fuel tank pit.

However, as reported previously, **the extent of ground water contamination at and in the vicinity of the site has not been defined, especially in the downgradient direction (south); therefore, additional monitoring wells are warranted.** A work plan/proposal (KEI-P90-1103.P2) dated November 13, 1991, was previously submitted that recommended the installation of three additional monitoring wells. The locations of the proposed wells are shown on the attached Site Plan, Figure 3. Unocal previously submitted the required information to the City of Oakland in application for an encroachment permit for proposed wells MW5 and MW6. KEI has recently submitted a second request for the encroachment permit. The three proposed wells will be scheduled for installation as soon as all encroachment and well installation permits have been obtained.

DISTRIBUTION

A copy of this report should be sent to the ACHCS, and to the RWQCB, San Francisco Bay Region.

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.

Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a State certified laboratory. We have analyzed this data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

Should you have any questions regarding this report, please do not hesitate to call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Thomas J. Berkins

Thomas J. Berkins
Senior Environmental Engineer

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

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

Timothy R. Ross

Timothy R. Ross
Project Manager

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Attachments: Tables 1 through 4
Location Map
Site Plans - Figures 1, 2 & 3
Laboratory Analyses
Chain of Custody documentation

KEI-P90-1103.QR4
July 27, 1992

TABLE 1

SUMMARY OF GROUND WATER MONITORING AND PURGING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)	Product Thickness (feet)	Sheen	Gallons Pumped
(Monitored and Sampled on June 30, 1992)					
MW1	13.93	21.01	0	No	9
MW2	14.29	20.68	0	No	8
MW3	13.53	19.86	0	No	8
(Monitored on May 28, 1992)					
MW1	11.97	22.97	0	--	0
MW2	13.27	21.70	0	--	0
MW3	12.68	20.71	0	--	55
(Monitored on April 29, 1992)					
MW1	14.19	20.75	0	--	0
MW2	14.49	20.48	0	--	0
MW3	13.82	19.57	0	--	55

Well #	Surface Elevation* (feet)
MW1	34.94
MW2	34.97
MW3	33.39

-- Sheen determination was not performed.

* The elevations of the tops of the well covers have been surveyed to Mean Sea Level (MSL), per the City of Oakland disk stamped "25/A" at elevation 28.81 feet MSL.

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July 27, 1992

increasing steadily since 6-91!

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
6/30/92	MW1	120	ND	ND	ND	ND	ND
	MW2	--	76	9.3	0.76	6.9	4.8
	MW3	--	*8,900	1,900	210	550	430
4/02/92	MW1	94	ND	ND	ND	ND	ND
	MW2	--	88	12	0.32	7.2	6.3
	MW3	--	8,000	1,400	200	310	300
12/30/91	MW1	ND	ND	ND	ND	ND	ND
	MW2	--	91	16	0.89	1.9	11
	MW3	--	7,200	2,100	690	550	410
9/30/91	MW1	ND	ND	ND	ND	ND	ND
	MW2	--	130	18	0.53	9.6	14
	MW3	--	6,800	1,400	130	240	290
6/05/91	MW1	ND	47	ND	ND	ND	ND
	MW2	--	49	ND	ND	ND	ND
	MW3	--	5,800	1,200	40	97	140

ND = Non-detectable.

-- Indicates analysis was not performed.

Results in parts per billion (ppb), unless otherwise indicated.

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TABLE 3

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TOG	Cadmium	Chromium	Lead	Nickel	Zinc
6/30/92	MW1	ND	ND	0.079	0.0090	0.10	0.087
4/02/92	MW1	ND	ND	0.015	0.016	ND	0.020
12/30/91	MW1	ND	ND	0.0078	0.0057	ND	0.046
9/30/91	MW1	ND	ND	0.019	ND	ND	0.11
6/05/91	MW1	ND	ND	0.0083	0.011	0.063	0.023
~~STLC~~			1.0	5	5.0	20	250
ppm 8-91 EPA MCL			5	.05	.05	.1	5

ND = Non-detectable.

Results in parts per million (ppm), unless otherwise indicated.

.015 is action level

Prop 65

5×10^{-7} ~~Hex~~ Cr 6

2.5×10^{-4} or .00025

✓ past reports + lab data for these results

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TABLE 4

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	Chloroform	Tetrachloroethene	Trichloroethene
6/30/92	MW1*	9.5	2.2	1.3
4/02/92	MW1*	7.1	2.6	1.4
12/30/91	MW1*	6.4	2.1	0.9
9/30/91	MW1	--	--	--
6/04/91	MW1*	7.8	2.9	1.3
ppb {	DHS MCL		.005	.005
	EPA MCL			.005
	Prop 65	4.5		

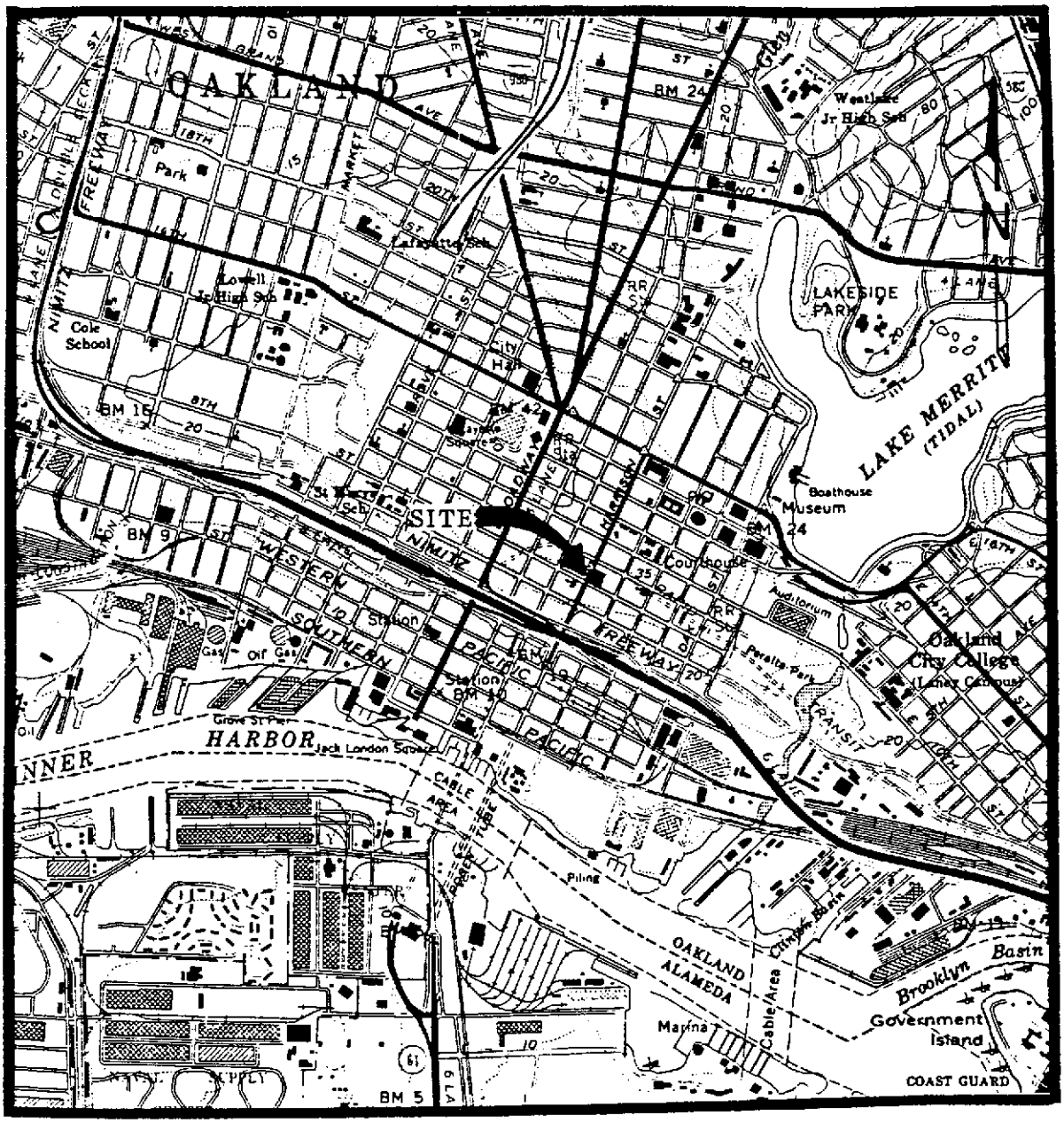
* All EPA method 8010 constituents were non-detectable, except for the above compounds.

-- Indicates analysis was not performed.

Results in parts per billion (ppb), unless otherwise indicated.

1 p.b = .001 ppm

1 ppm = 1000 ppb

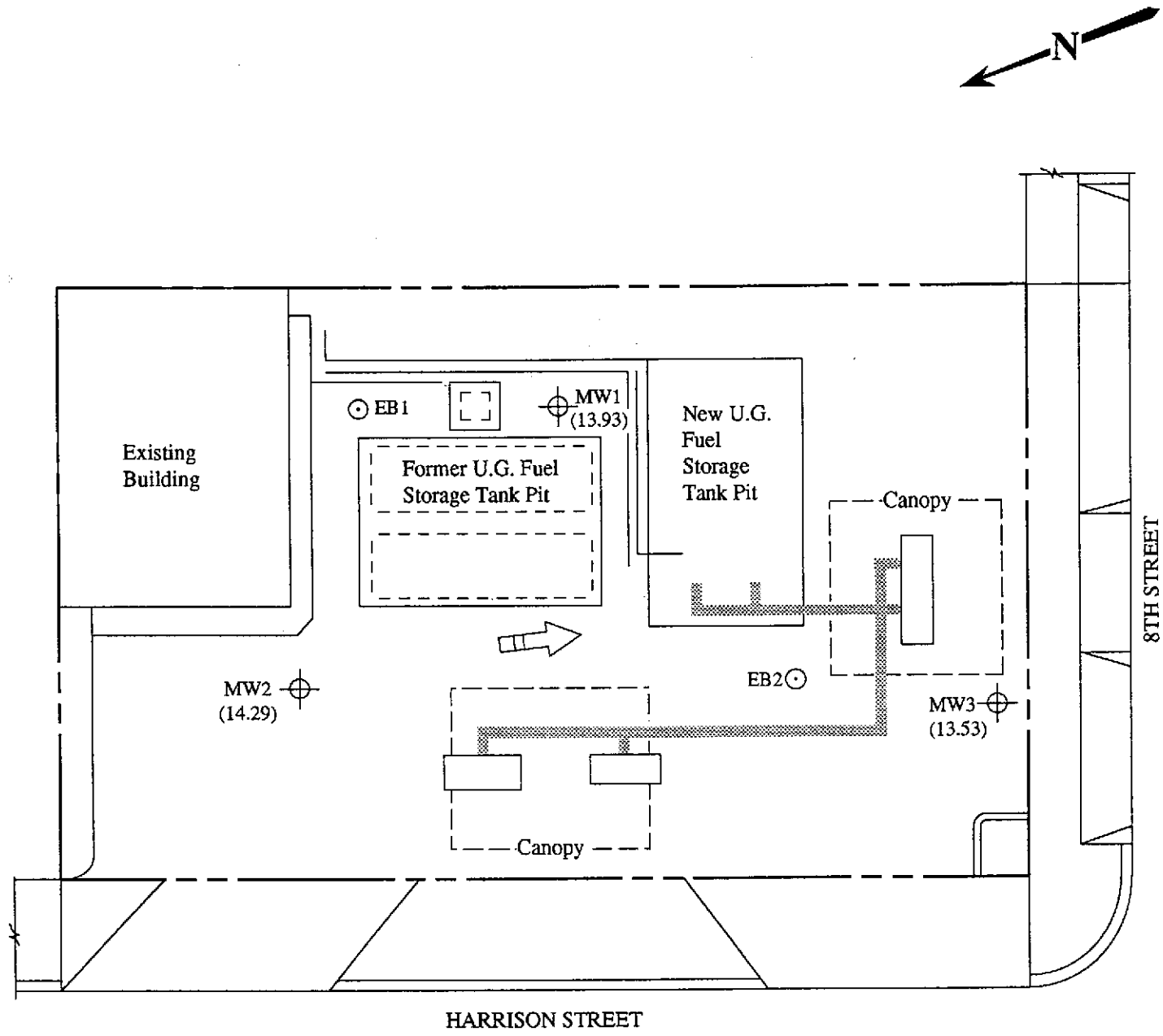


Base modified from 7.5 minute U.S.G.S. Oakland West Quadrangle
(photorevised 1980)

0 2000 4000

Approx. scale feet

KAPREALIAN ENGINEERING INCORPORATED	**UNOCAL SERVICE STATION #0752** **800 HARRISON STREET** **OAKLAND, CA**	**LOCATION MAP**



SITE PLAN

LEGEND

- Monitoring well
- Exploratory boring
- ( ) Ground water elevation in feet above Mean Sea Level on 6/30/92
- Direction of ground water flow

0 20 40

Approx. scale feet

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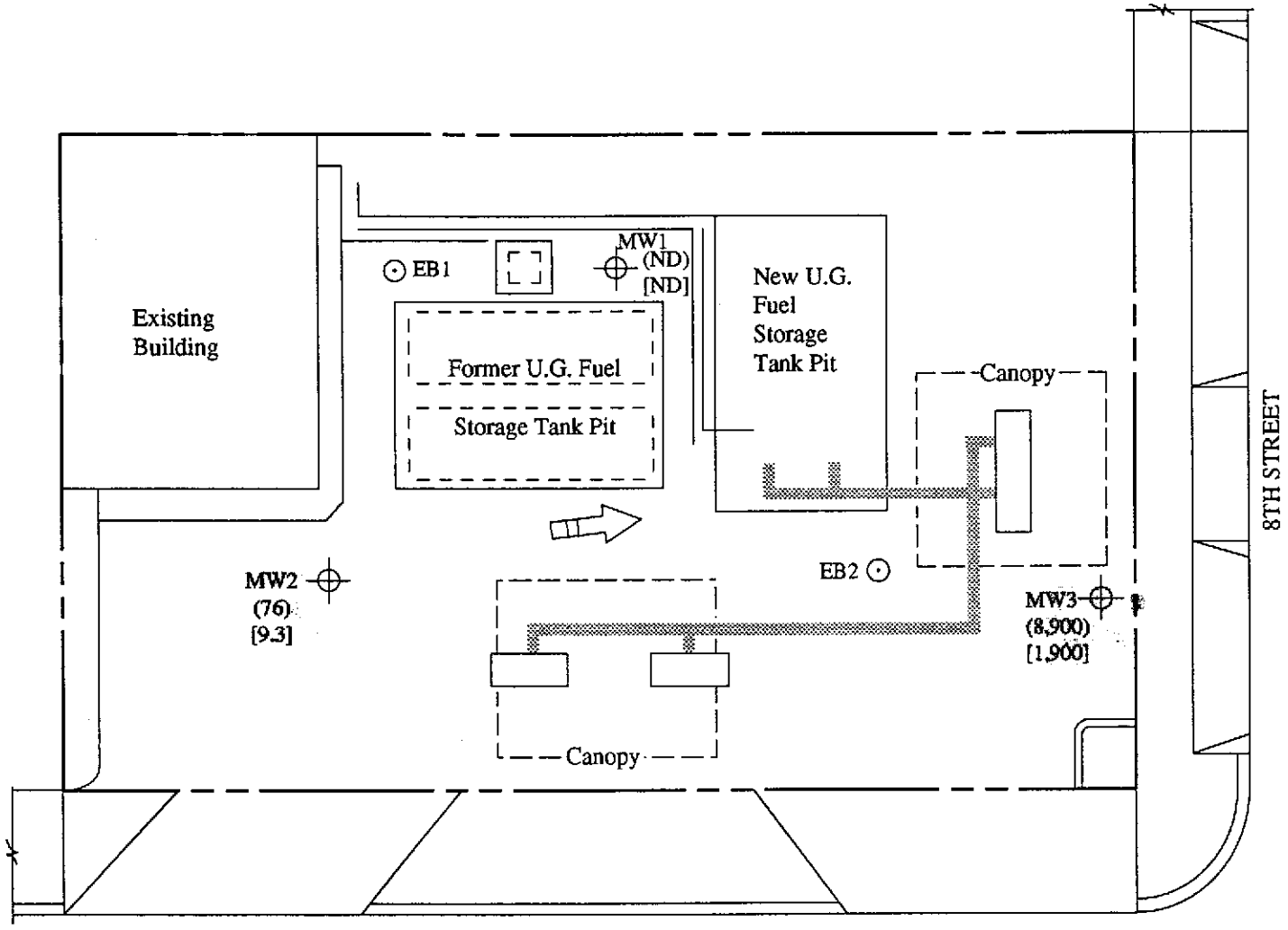
INCORPORATED

UNOCAL SERVICE STATION #0752
800 HARRISON STREET
OAKLAND, CA

FIGURE
1



SITE PLAN

(Samples collected on 6/30/92)

LEGEND

- Monitoring well
- Exploratory boring
- ( ) Concentration of TPH as gasoline in ppb
- [ ] Concentration of benzene in ppb
- Direction of ground water flow

0 20 40

Approx. scale feet

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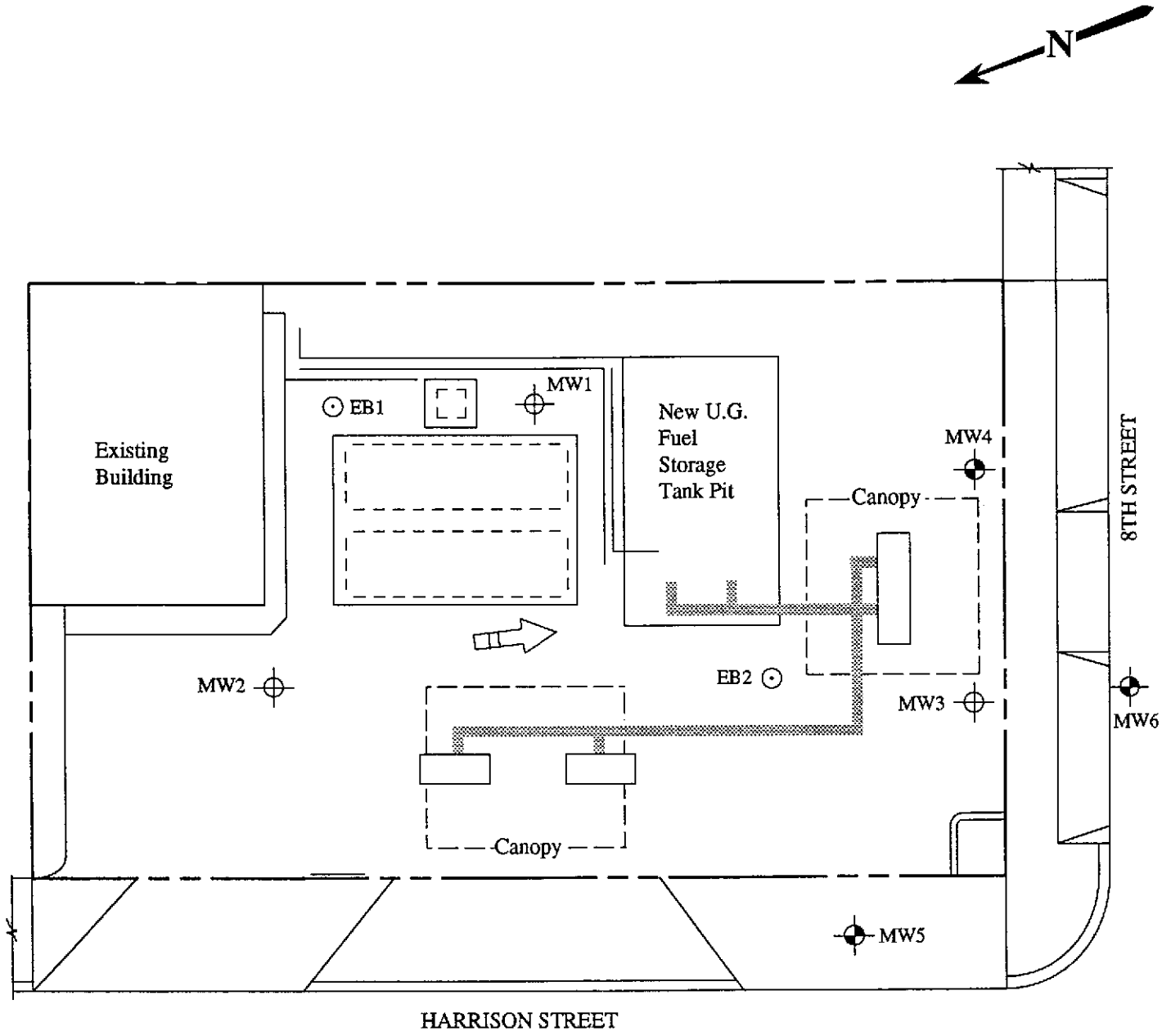
UNOCAL SERVICE STATION #0752
800 HARRISON STREET
OAKLAND, CA

FIGURE
2



SITE PLAN

LEGEND

- Monitoring well (Existing)
- Exploratory boring (Existing)
- Monitoring well (Proposed)
- Direction of ground water flow

0 20 40

Approx. scale feet

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UNOCAL SERVICE STATION #0752
800 HARRISON STREET
OAKLAND, CA

FIGURE
3

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 800 Harrison, Oakland	Sampled:	Jun 30, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	Jun 30, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 6, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	206-1443	Reported:	Jul 14, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons ug/L (ppb)	Benzene ug/L (ppb)	Toluene ug/L (ppb)	Ethyl Benzene ug/L (ppb)	Xylenes ug/L (ppb)
206-1443	MW-1	N.D.	N.D.	N.D.	N.D.	N.D.
206-1444	MW-2	76	9.3	0.76	4.8	6.9
206-1445	MW-3	8,900	1,900	210	430	550
Method Detection Limits:		**50**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 800 Harrison, Oakland	Sampled:	Jun 30, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	Jun 30, 1992
Concord, CA 94520	Analysis Method:	EPA 3510/8015	Extracted:	Jul 8, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	206-1443	Analyzed:	Jul 9, 1992
			Reported:	Jul 14, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons ug/L (ppb)
206-1443	MW-1	120

Method Detection Limits:	**50**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.

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Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 800 Harrison, Oakland	Sampled:	Jun 30, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	Jun 30, 1992
Concord, CA 94520	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted:	Jul 2, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	206-1443	Analyzed:	Jul 7, 1992
			Reported:	Jul 14, 1992

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)
206-1443	MW-1	N.D.

Detection Limits:	**5.0**

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

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Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 800 Harrison, Oakland	Sampled:	Jun 30, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, MW-1	Received:	Jun 30, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 9, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	206-1443	Reported:	Jul 14, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	0.50	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	0.50	N.D.
2-Chloroethylvinyl ether	0.50	N.D.
Chloroform	**0.50**	**9.5**
Chloromethane	0.50	N.D.
Dibromochloromethane	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**2.2**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.3**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

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

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Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 800 Harrison, Oakland	Sampled:	Jun 30, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, MW-1	Received:	Jun 30, 1992
Concord, CA 94520			Analyzed:	7/8 - 7/9/92
Attention: Mardo Kaprealian, P.E.	Lab Number:	206-1443	Reported:	Jul 14, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/L	Sample Results mg/L
Cadmium	0.010	N.D.
Chromium	0.0050	0.079
Lead	0.0050	0.0090
Nickel	0.050	0.10
Zinc	0.010	0.087

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

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Project Manager

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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 800 Harrison, Oakland
QC Sample Group: 2061443-1445
Reported: Jul 14, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Diesel	Oil and Grease
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA8015	SM5520
Analyst:	J.F.	J.F.	J.F.	J.F.	K.Wimer	D. Newcomb
Reporting Units:	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Date Analyzed:	Jul 6, 1992	Jul 6, 1992	Jul 6, 1992	Jul 6, 1992	Jul 9, 1992	Jul 7, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60	300	100
Conc. Matrix Spike:	20	20	20	64	300	93
Matrix Spike % Recovery:	100	100	100	106	100	93
Conc. Matrix Spike Dup.:	21	21	21	64	278	89
Matrix Spike Duplicate % Recovery:	105	105	105	106	93	89
Relative % Difference:	4.8	4.8	4.8	0.0	7.6	4.0

Laboratory Blank contained the following analytes: None detected.

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Scott A. Chieffo
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

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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 800 Harrison, Oakland
QC Sample Group: 2061443-1445
Reported: Jul 14, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	ug/L	ug/L	ug/L
Date Analyzed:	Jul 9, 1992	Jul 9, 1992	Jul 9, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10
Conc. Matrix Spike:	9.3	10	9.7
Matrix Spike % Recovery:	93	100	97
Conc. Matrix Spike Dup.:	8.8	9.7	9.5
Matrix Spike Duplicate % Recovery:	88	97	95
Relative % Difference:	5.5	3.0	2.1

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.
Laboratory Blank contained the following analytes: None detected.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 800 Harrison, Oakland
QC Sample Group: 2061443-1445
Reported: Jul 14, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Cadmium	Chromium	Lead	Nickel	Zinc
Method:	EPA 213.1	EPA 218.2	EPA 239.2	EPA 249.1	EPA 289.1
Analyst:	K. Anderson	K. Anderson	K. Anderson	K. Anderson	B. Pascalli
Reporting Units:	mg/L	mg/L	mg/L	mg/L	mg/L
Date Analyzed:	Jul 8, 1992	Jul 9, 1992	Jul 9, 1992	Jul 8, 1992	Jul 8, 1992
QC Sample #:	206-1443	206-1419	206-1419	206-1443	206-1443
Sample Conc.:	N.D.	0.030	0.0095	0.10	0.087
Spike Conc. Added:	0.20	0.20	0.20	0.20	0.20
Conc. Matrix Spike:	0.17	0.26	0.23	0.28	0.27
Matrix Spike % Recovery:	85	115	110	90	92
Conc. Matrix Spike Dup.:	0.16	0.26	0.21	0.28	0.27
Matrix Spike Duplicate % Recovery:	80	115	100	90	92
Relative % Difference:	6.1	0.0	9.1	0.0	0.0

Laboratory Blank contained the following analytes: None detected.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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Kaprealian Engineering, Inc. Client Project ID: Unocal, 800 Harrison, Oakland
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kaprealian, P.E. QC Sample Group: 2061443-1445 Reported: Jul 14, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA8015	EPA8015
Analyst:	J.F.	J.F.	J.F.	J.F.	K.Wimer	K.Wimer
Reporting Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	Jul 6, 1992	Jul 6, 1992	Jul 6, 1992	Jul 6, 1992	Jul 9, 1992	Jul 9, 1992
Sample #:	206-1443	206-1444	206-1445	Matrix Blank	206-1443	Matrix Blank
Surrogate % Recovery:	100	100	100	98	80	99

SEQUOIA ANALYTICAL

Scott A. Chieffo
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

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 800 Harrison, Oakland
QC Sample Group: 2061443-1445

Reported: Jul 14, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen
Reporting Units:	ug/L	ug/L
Date Analyzed:	Jul 9, 1992	Jul 9, 1992
Sample #:	206-1443	Matrix Blank
Surrogate #1 % Recovery:	123	108
Surrogate #2 % Recovery:	105	115

SEQUOIA ANALYTICAL

Scott A. Chieffo
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

KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER: Vartkes

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal / Oakland
800 Harrison

TURN AROUND TIME: Regular

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPHG & BTXE	TPH D	TOG (5520 B&F)	8010	5 METALS	REMARKS
MW-1	6/30/92	2:45 p.m.		X	X		7	Monitoring Well	X	X	X	X	X	206-1443AG
MW-2	"	3:25 p.m.		X	X		2	" "	X					↓ 1444AB
MW-3	"	4:10 p.m.		X	X		2	" "	X					↓ 1445AB

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
W. Oakhof	6/30/92 5:20	Tim Cattell
Tim Cattell	7-1-92 1458	
	7-1-92 1631	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
hed by: (Signature)	Date/Time	Received by: Signature)

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

J.C.	Analyst.	6-30-92
Signature	Title	Date