



KAPREALIAN ENGINEERING
INCORPORATED

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HAZMAT

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std # 521

January 7, 1994

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

RE: Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Gentlemen:

Per the request of Mr. David DeWitt of Unocal Corporation, enclosed please find our report dated December 6, 1993, for the above referenced site.

If you should have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

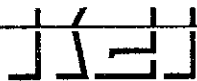
Kaprealian Engineering, Inc.

Judy A. Dewey

jad\82

Enclosure

cc: David DeWitt, Unocal Corporation



KAPREALIAN ENGINEERING
INCORPORATED

KEI-P91-1004.QR6
December 6, 1993

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

Attention: Mr. David DeWitt

RE: Quarterly Report
Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Mr. DeWitt:

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). The wells are currently monitored monthly and sampled on a quarterly basis. This report covers the work performed by KEI from September through November of 1993.

BACKGROUND

The subject site contains an operating Unocal service station facility. Six monitoring wells have been installed at the site.

A site description, detailed 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 reports (KEI-P91-1004.R4) dated October 12, 1992, and (KEI-P91-1004.R3) dated March 26, 1992.

RECENT FIELD ACTIVITIES

The six wells (MW1 through MW6) were monitored three times and were sampled once during the quarter, except for well MW1, which was not sampled due to the presence of free product. During monitoring, the wells were checked for depth to water and the presence of free product. Prior to sampling, the wells were also checked for the presence of a sheen. No free product or sheen was noted in any of the wells during the quarter, except for a trace to 0.03 feet of free product that was observed in well MW1 throughout the quarter. The monitoring data collected this quarter are summarized in Table 1.

Ground Water samples were collected from all of the wells (except well MW1) on November 3, 1993. Prior to sampling, the wells were each purged of between 3.5 and 5.5 gallons of water by the use of a surface pump. The samples were 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, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory.

HYDROLOGY

The measured depth to ground water at the site on November 3, 1993, ranged between 3.04 and 5.68 feet. The water levels in all of the wells have shown net decreases ranging from 0.01 to 0.55 feet since August 4, 1993, except for well MW4, which showed a net increase of 0.19 feet. The ground water flow directions at the Unocal site during the most recent quarter of monitoring are shown on the attached Potentiometric Surface Maps, Figures 1, 2, and 3. The hydraulic gradient at the site on November 3, 1993, ranged from approximately 0.006 to 0.05.

ANALYTICAL RESULTS

The ground water samples collected this quarter 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, TPH as diesel by EPA method 3510/modified 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020.

The analytical results of all of the ground water samples collected from the monitoring wells to date are summarized in Table 2. The concentrations of TPH as gasoline, benzene, and TPH as diesel detected in the ground water samples collected this quarter are shown on the attached Figures 4, 5, and 6, respectively. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results of the ground water samples collected and evaluated to date, KEI recommends the continuation of the current ground water monitoring and sampling program. The wells will continue to be monitored monthly and sampled for TPH as gasoline, BTEX, and TPH as diesel on a quarterly basis. The results of the monitoring and sampling program will be documented and evaluated after each monitoring and sampling event. Further

modifications to the monitoring and sampling program will be made as warranted.

KEI previously proposed the installation of four additional monitoring wells in order to further define the extent of contamination at and in the vicinity of the site. The locations of the proposed additional monitoring wells are shown on the attached Figure 7. KEI understands that Unocal is currently in the process of obtaining off-site access permission to install the proposed wells. KEI will install the proposed wells once off-site access permission and all of the necessary permits have been received.

Additionally, KEI recommends that well MW1 be purged during the monthly monitoring events in order to reduce the presence of free product in the well.

Lastly, a continuous surface-skimming free product recovery device was previously installed in well MW1 in August of 1992. Any free product that accumulates in the skimming device is removed during the monthly monitoring events.

DISTRIBUTION

A copy of this report should be sent to Alameda County Health Care Services Agency, and to the Regional Water Quality Control Board, 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 these 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.

KEI-P91-1004.QR4
December 6, 1993
Page 4

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

Sincerely,

Kaprealian Engineering, Inc.




Thomas J. Berkins
Senior Environmental Engineer



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

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



Robert H. Kezerian
Project Engineer

/bp

Attachments: Tables 1 & 2
Location Map
Figures 1 through 7
Laboratory Analyses
Chain of Custody documentation

KEI-P91-1004.QR6
December 6, 1993

TABLE 1

SUMMARY OF MONITORING DATA

<u>Well</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)†</u>	<u>Product Thickness (feet)</u>	<u>Sheen</u>	<u>Water Purged (gallons)</u>	<u>Product Purged (ounces)</u>
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(Monitored and Sampled on November 3, 1993)

MW1*	4.74	3.04	<0.01	N/A	0	0
MW2	5.21	3.37	0	No	5.5	0
MW3	2.89	4.53	0	No	4	0
MW4	4.18	4.23	0	No	4	0
MW5	3.27	5.68	0	No	3.5	0
MW6	3.62	5.25	0	No	4	0

(Monitored on October 7, 1993)

MW1	4.54**	2.86	0.03	N/A	0.5	<1
MW2	5.23	3.35	0	--	0	0
MW3	2.83	4.59	0	--	0	0
MW4	4.34	4.07	0	--	0	0
MW5	3.30	5.65	0	--	0	0
MW6	3.64	5.23	0	--	0	0

(Monitored on September 3, 1993)

MW1	4.91	2.47	<0.01	N/A	0	0
MW2	5.83	2.75	0	--	0	0
MW3	3.01	4.41	0	--	0	0
MW4	4.14	4.27	0	--	0	0
MW5	3.57	5.38	0	--	0	0
MW6	4.07	4.80	0	--	0	0

Top of Casing Elevation
in feet above

Well # Mean Sea Level (MSL)***

MW1	7.38
MW2	8.58
MW3	7.42
MW4	8.41
MW5	8.95
MW6	8.87

KEI-P91-1004.QR6
December 6, 1993

TABLE 1 (Continued)

SUMMARY OF GROUND WATER MONITORING DATA

- ◆ The depth to water level measurement was taken from the top of the well casing. Prior to September 3, 1993, the water level measurement was taken from the top of the well cover.
- N/A Not applicable.
- Sheen determination was not performed.
- * Monitored only.
- ** The ground water elevation was corrected for the presence of free product by the use of a specific gravity of 0.77.
- *** Based on the City of Oakland Benchmark #3880 (elevation = 20.37 MSL).

KEI-P91-1004.QR6
December 6, 1993

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
11/03/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	2,600♦♦	72,000	3,700	16,000	3,700	20,000
	MW3	160	640**	ND	ND	ND	ND
	MW4	68	130**	ND	ND	ND	ND
	MW5	2,100♦♦	13,000	350	ND	3,500	530
	MW6	390♦♦	1,400	320	ND	200	7.7
8/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	1,800♦♦	45,000	2,100	6,600	1,400	12,000
	MW3	100	210**	ND	ND	ND	ND
	MW4	81	250**	ND	3.5	ND	4.1
	MW5+	970♦♦	1,500	130	1.0	460	11
	MW6	1,100♦♦	3,400	390	ND	440	190
5/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	7,100♦	63,000	3,200	17,000	470	17,000
	MW3	250♦♦	1,800*	95	ND	ND	ND
	MW4	ND	110*	0.95	ND	ND	ND
	MW5+	4,600♦	7,400	41	ND	1,000	35
	MW6	1,800♦	4,900	360	18	450	430
2/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	6,100♦	18,000	1,600	3,000	ND	6,900
	MW3	550♦♦	3,300	320	ND	96	6.1
	MW4	ND	ND	ND	ND	ND	ND
	MW5+	5,500♦♦	5,700	38	ND	620	170
	MW6	890♦♦	3,600	340	ND	290	550
11/30/92	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	5,700♦	29,000	2,000	3,400	1,200	6,900
	MW3	94	790**	ND	ND	ND	ND
	MW4	61	420**	ND	ND	ND	ND
	MW5+	470♦♦	930	70	290	0.79	14
	MW6	1,400♦	9,200	550	ND	740	1,600
8/31/92	MW1	8,900♦	64,000	13,000	12,000	2,500	22,000
	MW2	1,600♦	9,000	1,800	640	140	2,000
	MW3	92♦♦	210**	1.0	ND	ND	ND
	MW4	90♦♦	240**	ND	ND	ND	0.54
	MW5	690♦	78	0.89	ND	ND	13
	MW6	750♦♦	ND	ND	ND	ND	ND

KEI-P91-1004.QR6
 December 6, 1993

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
 WATER

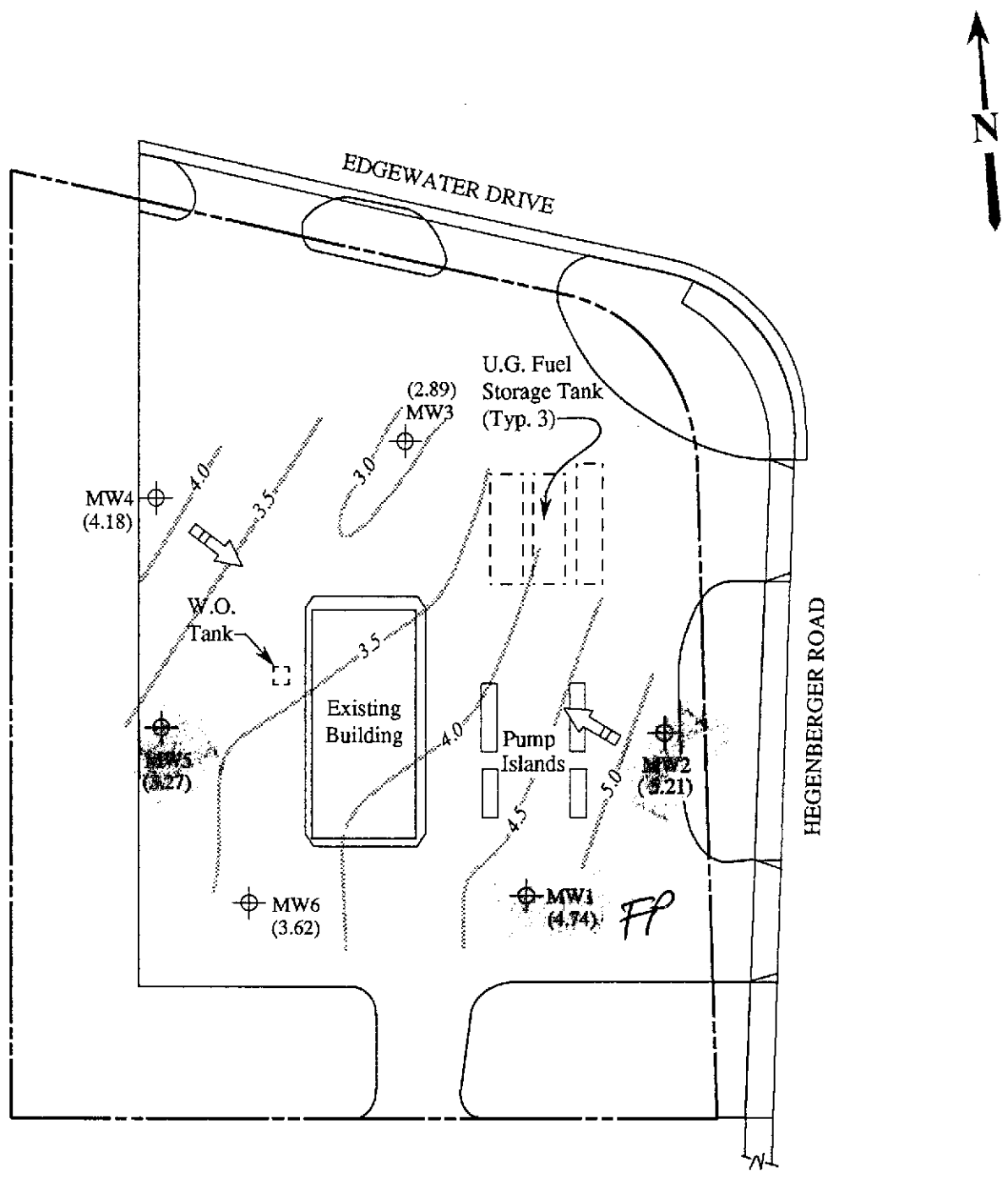
<u>Date</u>	<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
5/20/92	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	4,300♦	24,000	2,200	7,600	630	11,000
	MW3	WELL WAS INACCESSIBLE FOR SAMPLING					
2/18/92	MW1	13,000	150,000	17,000	26,000	5,200	26,000
	MW2	4,300	29,000	1,000	5,300	260	7,900
	MW3	ND	230	4.8	22	1.8	33

- ♦ 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.

+ TOG was non-detectable.

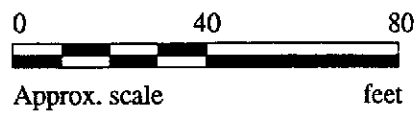
ND = Non-detectable.

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



LEGEND

- ⊕ Monitoring well
- () Ground water elevation in feet above Mean Sea Level
- ➡ Direction of ground water flow
- Contours of ground water elevation

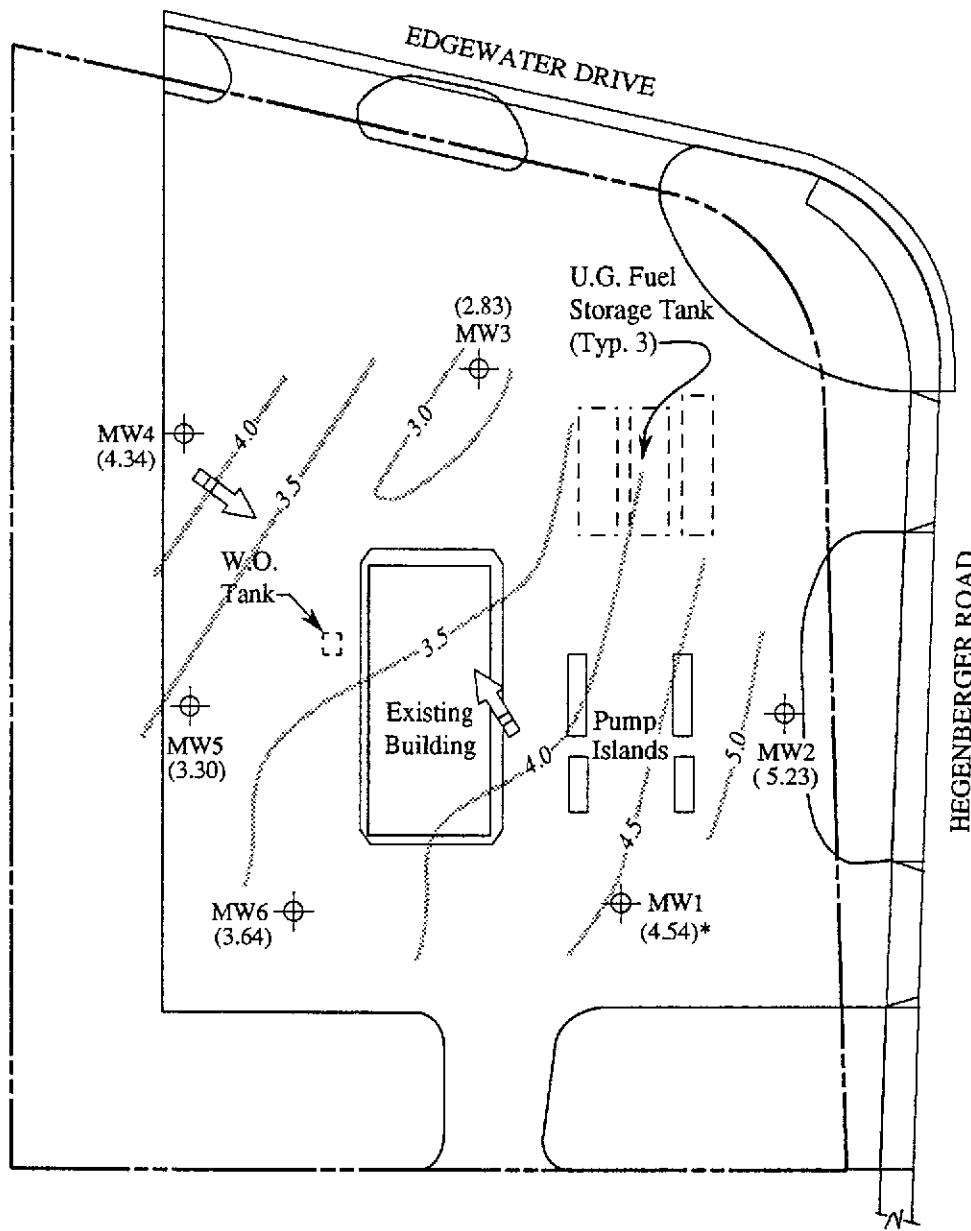


POTENTIOMETRIC SURFACE MAP FOR THE NOVEMBER 3, 1993 MONITORING EVENT




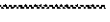
**KAPREALIAN ENGINEERING
INCORPORATED**

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

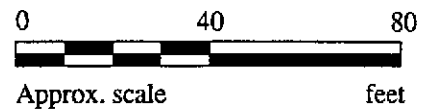
**FIGURE
1**



LEGEND

-  Monitoring well
-  Ground water elevation in feet above Mean Sea Level
-  Direction of ground water flow
-  Contours of ground water elevation

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

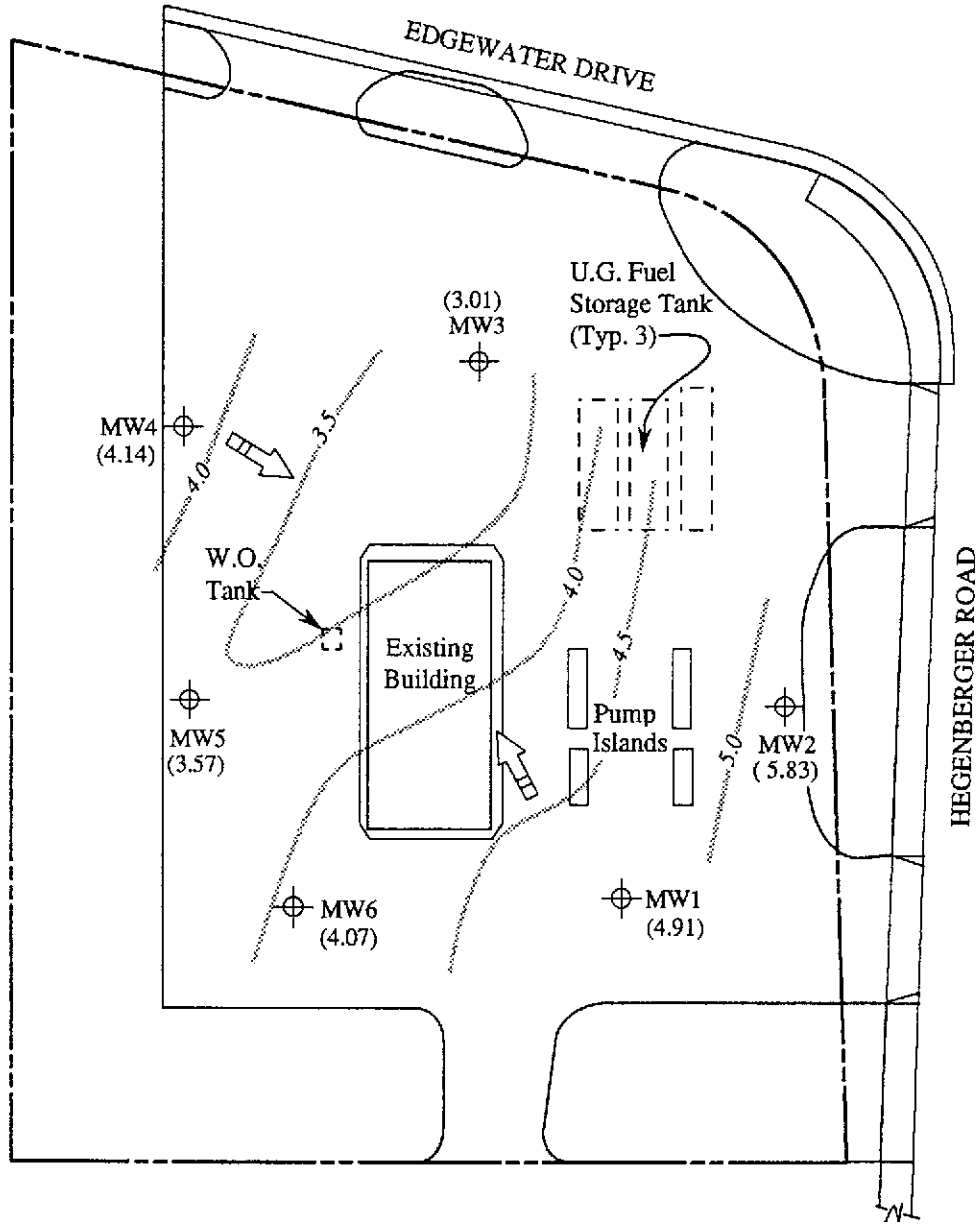


POTENTIOMETRIC SURFACE MAP FOR THE OCTOBER 7, 1993 MONITORING EVENT



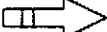
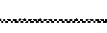


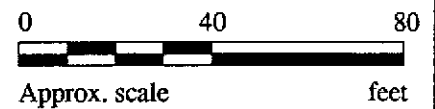
**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

**FIGURE
2**



LEGEND

-  Monitoring well
-  () Ground water elevation in feet above Mean Sea Level
-  Direction of ground water flow
-  Contours of ground water elevation

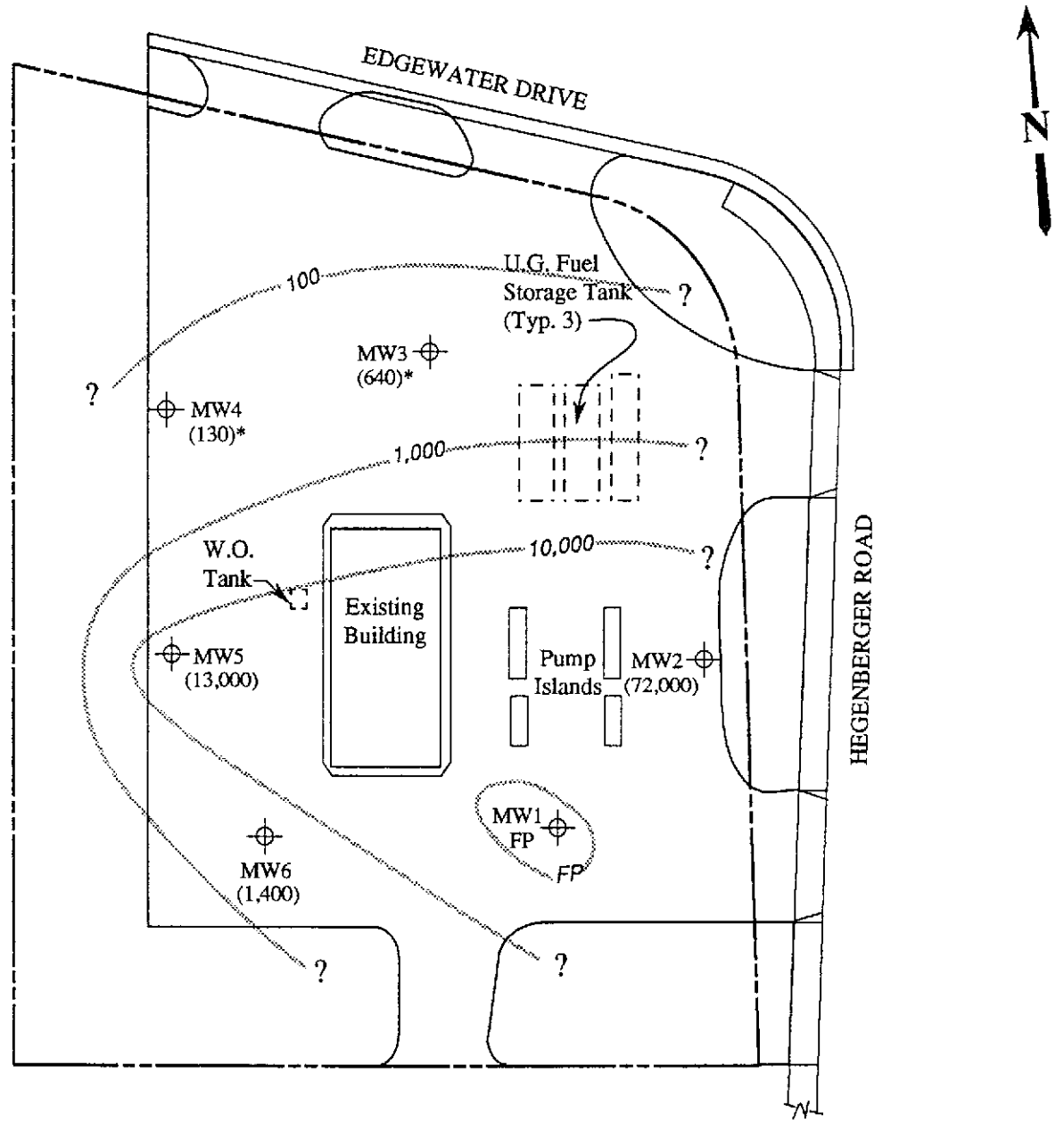


POTENTIOMETRIC SURFACE MAP FOR THE SEPTEMBER 3, 1993 MONITORING EVENT



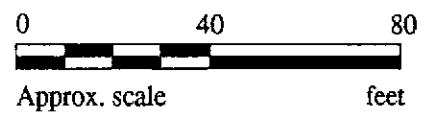
**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

**FIGURE
3**



LEGEND

- ⊕ Monitoring well
- () Concentrations of TPH as gasoline in ppb
- Iso-concentration contours in ppb
- FP = Free product, ND = Non-detectable
- * The lab reported that the hydrocarbons detected did not appear to be gasoline.

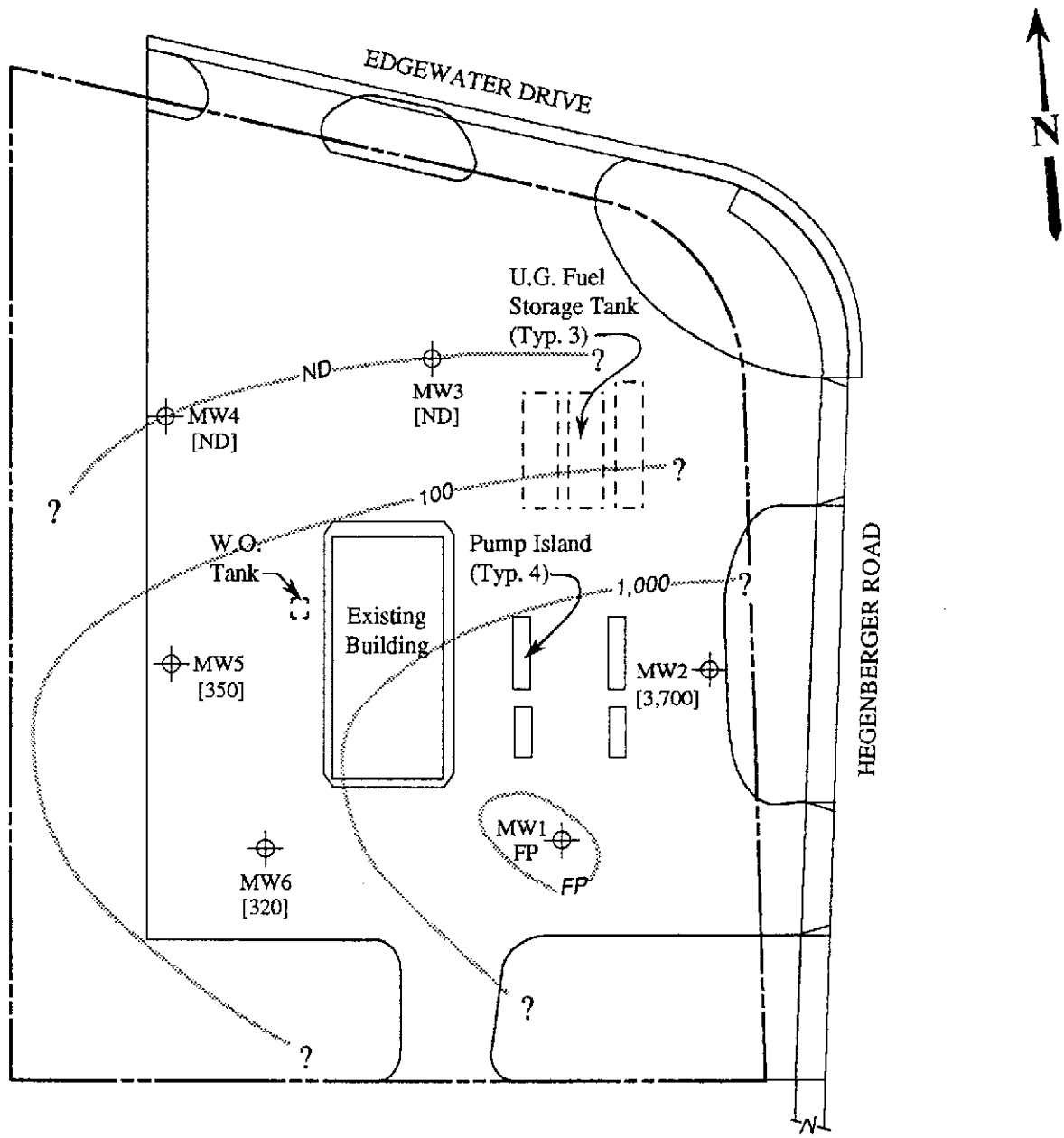


TPH AS GASOLINE CONCENTRATIONS IN GROUND WATER ON NOVEMBER 3, 1993



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

**FIGURE
4**



LEGEND

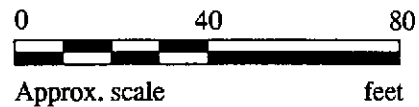
⊕ Monitoring well

[] Concentrations of benzene in ppb

..... Iso-concentration contours in ppb

FP = Free product

ND = Non-detectable

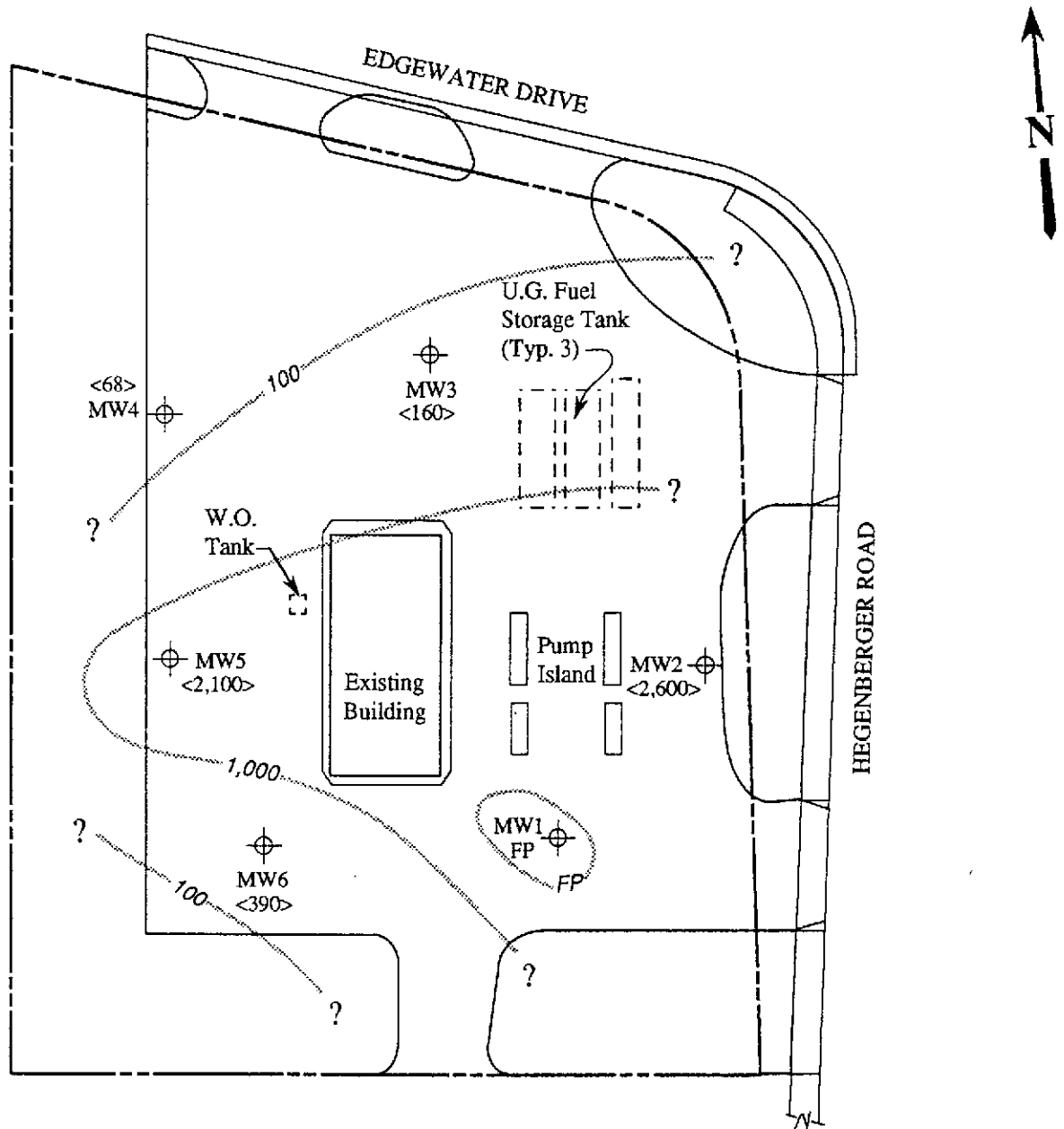


BENZENE CONCENTRATIONS IN GROUND WATER ON NOVEMBER 3, 1993

**KAPREALIAN ENGINEERING
INCORPORATED**

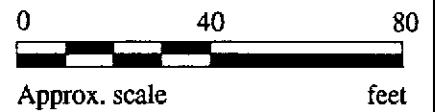
**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

**FIGURE
5**



LEGEND

- ⊕ Monitoring well
- < > Concentrations of TPH as diesel in ppb
- Iso-concentration contours in ppb
- FP = Free product

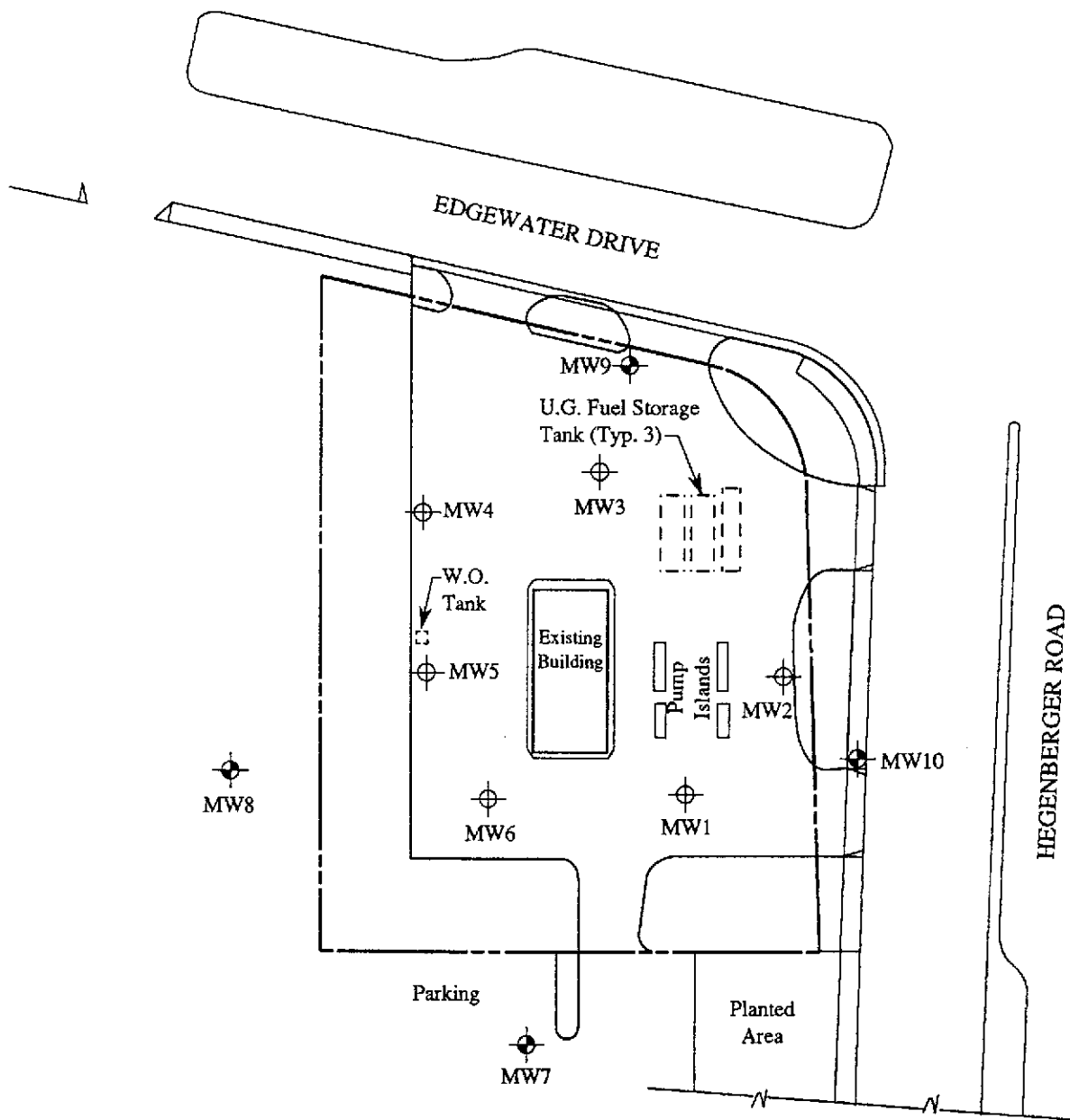


TPH AS DIESEL CONCENTRATIONS IN GROUND WATER ON NOVEMBER 3, 1993





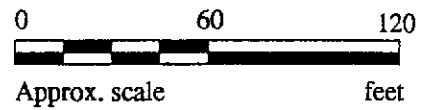
**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

**FIGURE
6**



LEGEND

-  Monitoring well (existing)
-  Monitoring well (proposed)



EXISTING AND PROPOSED MONITORING WELL LOCATION MAP



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

**FIGURE
7**



SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedessian	Client Project ID: Unocal #5043, 449 Hegenberger, Oakland Sample Matrix: Water Analysis Method: EPA 5030/8015/8020 First Sample #: 311-0307	Sampled: Nov 3, 1993 Received: Nov 4, 1993 Reported: Nov 17, 1993
---	--	---

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 311-0307 MW-2	Sample I.D. 311-0308 MW-3*	Sample I.D. 311-0309 MW-4*	Sample I.D. 311-0310 MW-5	Sample I.D. 311-0311 MW-6	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	50	72,000	640	130	13,000	1,400	
Benzene	0.5	3,700	N.D.	N.D.	350	320	
Toluene	0.5	16,000	N.D.	N.D.	N.D.	N.D.	
Ethyl Benzene	0.5	3,700	N.D.	N.D.	3,500	200	
Total Xylenes	0.5	20,000	N.D.	N.D.	530	7.7	
Chromatogram Pattern:		Gasoline	Discrete Peak	Discrete Peak	Gasoline	Gasoline	

Quality Control Data

Report Limit Multiplication Factor:	200	10	1.0	100	10	1.0
Date Analyzed:	11/9/93	11/10/93	11/9/93	11/9/93	11/10/93	11/10/93
Instrument Identification:	HP-5	HP-4	HP-5	HP-5	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	103	91	95	87	86	102

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

Please Note:

* Purgeable hydrocarbons are due to a discrete peak in the MTBE range.



SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedessian	Client Project ID: Unocal #5043, 449 Hegenberger, Oakland Sample Matrix: Water Analysis Method: EPA 3510/3520/8015 First Sample #: 311-0307	Sampled: Nov 3, 1993 Received: Nov 4, 1993 Reported: Nov 17, 1993
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TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

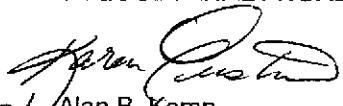
Analyte	Reporting Limit µg/L	Sample I.D. 311-0307 MW-2	Sample I.D. 311-0308 MW-3	Sample I.D. 311-0309 MW-4	Sample I.D. 311-0310 MW-5	Sample I.D. 311-0311 MW-6	Sample I.D. Matrix Blank
Extractable Hydrocarbons	50	2,600	160	68	2,100	390	
Chromatogram Pattern:		Diesel and Non-Diesel Mixture (<C14)	Diesel	Diesel	Diesel and Non-Diesel Mixture (<C14)	Diesel and Non-Diesel Mixture (<C14)	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	11/10/93	11/10/93	11/10/93	11/10/93	11/10/93	11/10/93
Date Analyzed:	11/14/93	11/14/93	11/14/93	11/14/93	11/14/93	11/15/93
Instrument Identification:	HP-3A	HP-3A	HP-3A	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



SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal #5043, 449 Hegenberger, Oakland
Matrix: Water

QC Sample Group: 3110307-11

Reported: Nov 17, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Analyst:	J.F.	J.F.	J.F.	J.F.	K. Wimer

MS/MSD Batch#:	3110613	3110613	3110613	3110613	BLK111093
Date Prepared:	11/10/93	11/10/93	11/10/93	11/10/93	11/9/93
Date Analyzed:	11/10/93	11/10/93	11/10/93	11/10/93	11/15/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L
Matrix Spike % Recovery:	100	100	100	98	96
Matrix Spike Duplicate % Recovery:	95	95	95	97	96
Relative % Difference:	5.1	5.1	5.1	1.0	0.30


LCS Batch#:	2LCS111093	2LCS111093	2LCS111093	2LCS111093	BLK111093
Date Prepared:	11/10/93	11/10/93	11/10/93	11/10/93	11/9/93
Date Analyzed:	11/10/93	11/10/93	11/10/93	11/10/93	11/15/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3A
LCS % Recovery:	98	98	99	99	96

% Recovery Control Limits:	70-130	70-130	70-130	70-130	80-120
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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


Alan B. Kemp
Project Manager



SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal #5043, 449 Hegenberger, Oakland

QC Sample Group: 3110307-11

Reported: Nov 17, 1993

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015
Analyst:	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer
Reporting Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	11/14/93	11/14/93	11/14/93	11/14/93	11/14/93	11/15/93
Sample #:	311-0307	311-0308	311-0309	311-0310	311-0311	Matrix Blank

Surrogate % Recovery:	89	89	92	95	96	92
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SEQUOIA ANALYTICAL

Alan B. Kemp
Alan B. Kemp
Project Manager

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

UNOCAL 76

680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600
 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600

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 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-8600

Company Name: <u>Kaprealian Engineering Inc.</u>		Project Name: <u>Unocal/Oakland - 449 Hegenberger</u>	
Address: <u>2401 Stanwell Dr. #400</u>		UNOCAL Project Manager:	
City: <u>Concord</u>	State: <u>Cal.</u>	Zip Code: <u>94520</u>	
Telephone: <u>510-602-5100</u>		FAX #: <u>510-687-062</u>	
Report To: <u>Avo Avedessian</u>		Sampler: <u>Joe</u>	
		Site #: <u>5043</u>	
		QC Data: <input checked="" type="checkbox"/> Level A (Standard) <input type="checkbox"/> Level B <input type="checkbox"/> Level C <input type="checkbox"/> Level D	

Turnaround 10 Working Days 2 Working Days
 Time: 5 Working Days 24 Hours
 3 Working Days 2-8 Hours

Drinking Water
 Waste Water
 Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments					
1. MW-2	11-3-93		3	2 VaA 1 Amber		✓	✓														3110307 A-C
2. MW-3	"		3	"		✓	✓														3110308
3. MW-4	"		3	"		✓	✓														3110309
4. MW-5	"		3	"		✓	✓														3110310
5. MW-6	"		3	"		✓	✓														3110311
6.																					
7.																					
8.																					
9.																					
10.																					

Relinquished By: <u>Joe Avedessian</u>	Date: <u>11-3-93</u>	Time: <u>3:10</u>	Received By: <u>[Signature]</u>	Date: <u>11/4/93</u>	Time: <u>10:45</u>
Relinquished By: <u>[Signature]</u>	Date: <u>11-4-93</u>	Time: <u>1:15p</u>	Received By: <u>Melina Cruz</u>	Date: <u>11/4/93</u>	Time: <u>1:15p</u>
Relinquished By:	Date:	Time:	Received By: <u>[Signature]</u>	Date: <u>11/3</u>	Time: <u>3:10</u>

Were Samples Received in Good Condition? Yes No
 Samples on Ice? Yes No
 Method of Shipment _____
 Page ___ of ___

To be completed upon receipt of report:
 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____
 Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client
 Yellow - Sequoia
 White - Sequoia