

Mobil Oil Corporation

3800 WEST ALAMEDA AVENUE, SUITE 700
BURBANK, CALIFORNIA 91505-4331

February 18, 1988

Mr. Greg Zetner
Regional Water Quality Control Board
1111 Jackson Street, Room 6040
Oakland, California 94607

MOBIL OIL CORPORATION
S/S #10-LIX
15884 HESPERIAN WAY
SAN LORENZO, CALIFORNIA

Dear Mr. Zetner:

Attached are our consultant's progress reports for the referenced location.

A quarterly sample was obtained from the wells on September 2, 1987. Laboratory analyses indicated non-detectable levels of hydrocarbons in wells MW-1, MW-3 and MW-4. Well MW-2 exhibited increased levels of total hydrocarbons and BTX.

The wells were not accessible for sampling in December due to construction activity on the site. The underground tanks have been removed and a significant quantity of contaminated soil was excavated.

The site mitigation alternatives are being evaluated. A remedial action plan will be submitted to your office when it has been developed.

Should you have any questions, contact Jane Keith at (818) 953-2519.

Sincerely,



R. J. Edwards
Region Environmental Manager

JMK:ars
attachment
07330

cc: Mr. T. M. Gerow
Alameda County
Environmental Health Department
470 27th Street, Room 324
Oakland, California 94612



KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(415) 676-9100 (707) 746-6915

KEI-P86-0310B-3

September 28, 1987

Mobil Oil Corporation
P. O. Box 127
Richmond, CA 94807

Attention: Mr. T. Ross

Re: Quarterly Report
Mobil Service Station #10-LIX
15884 Hesperian Way
San Lorenzo, California

Dear Mr. Ross:

This report presents the results of the most recent quarter of monitoring and sampling of the existing wells by Kaprealian Engineering, Inc. (KEI) at the referenced site. The monitoring and sampling of the wells were conducted in accordance with our proposal dated May 19, 1987. The wells are currently monitored monthly and sampled on a quarterly basis. This report covers the work performed by KEI from June, 1987 through September, 1987.

FIELD INVESTIGATION

The existing four (4) monitoring wells have been monitored since October, 1986. The most recent quarter of monitoring began in June, 1987. The wells were monitored three times and sampled once during the quarter. During monitoring, the wells were checked for depth to water, odor and visual presence of floating product. After monitoring, the wells were purged and were allowed to recover. Monitoring data are summarized in Table 1.

Water samples were taken from the four wells on September 2, 1987. Prior to sampling, the wells were purged at least five (5) well volumes. Samples were then collected using a clean Teflon bailer. The samples were decanted into clean VOA vials, sealed with Teflon-lined screw caps and stored on ice until delivery to Sequoia Analytical Laboratory in Redwood City, California. The samples were accompanied by a chain of custody form.

LABORATORY ANALYSES

The water samples were analyzed for total dissolved hydrocarbons (THC), benzene, toluene and xylene (BTX) concentrations. The results of the analyses are summarized in Table 2. Copies of the laboratory analytical results and chain of custody form are attached to this report.

DISCUSSIONS AND CONCLUSIONS

During monthly monitoring, and sampling, no floating product or sheen was noted in any of the wells. However, faint odor was detected in well MW-2. The laboratory results indicated total dissolved hydrocarbon concentrations of 710 parts per million (ppm) for MW-2, and non-detectable levels in wells MW-1, MW-3 and MW-4.

A comparison of the recent results with the laboratory analyses of the previous sampling (Table 1) shows an increase in the dissolved gasoline constituent level in well MW-2. MW-3 and MW-4 have shown non-detectable levels of all constituents for over 12 months.

A review of KEI's soil sampling report, dated April 16, 1986 reveals that there were three areas in the fuel tank pit with THC levels in the soil greater than 100 ppm. One of the more contaminated areas was excavated to a depth of 16 feet and resampled, in an attempt to remove as much of the contaminated soil as possible. However, the increase in dissolved hydrocarbons concentration in well MW-2 indicates a pocket of contaminated soil may be present in the vicinity of the well. As shown on the attached Location Plan, MW-2 is the downgradient well closest to the former fuel tank pit, therefore it is possible that the dissolved hydrocarbons are slowly migrating into the water table.

Since the area of the contamination appears to be localized at the Southern portion of the property, we believe it is unnecessary to investigate further at this time. However, KEI recommends the continuation of the monitoring and sampling program for an additional quarter. Particular attention will be given to MW-2. The monitoring program should be re-evaluated after the next sampling period, which is scheduled for December 1987.

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September 28, 1987
Page 3

A copy of this report should be sent to the Alameda County Department of Environmental Health, and to the Regional Water Quality Control Board.

LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in groundwater 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 investigations. 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, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

If you have any questions regarding this report, please do not hesitate to call me at (415) 676-9100 or (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.



Mardo Kaprealian

License #C29326
Exp. date 3/31/91

Attachment: Tables 1 and 2
Laboratory analyses
Chain of custody form
Location Plan

cc: J. Keith

TABLE 1
GROUNDWATER MONITORING DATA

<u>Date</u>	<u>Well No.</u>	<u>DTW</u> (ft)	<u>Odor</u>	<u>Sheen</u>
6/20/87	MW-1	14.75	No	No
	MW-2	13.375	Faint	No
	MW-3	14.28	No	No
	MW-4	14.0	No	No
7/20/87	MW-1	14.167	No	No
	MW-2	13.67	Faint	No
	MW-3	14.67	No	No
	MW-4	14.396	No	No
9/02/87	MW-1	14.875	No	No
	MW-2	14.25	Faint	No
	MW-3	15.125	No	No
	MW-4	14.83	No	No

DTW = Depth to water

TABLE 2
RESULTS OF GROUNDWATER ANALYSES
(Concentrations are in Parts Per Million)

<u>Date</u>	<u>Parameter</u>	<u>MW-1</u>	<u>MW-2</u>	<u>MW-3</u>	<u>MW-4</u>
9/02/87	THC	<0.050	710.0	<0.050	<0.050
	Benzene	<0.0005	0.980	<0.0005	<0.0005
	Toluene	<0.0005	3.0	<0.0005	<0.0005
	Xylene	<0.0005	33.0	<0.0005	<0.0005
4/25/87	THC	<0.05	0.660	<0.050	<0.050
	Benzene	<0.0005	0.0022	<0.0005	<0.0005
	Toluene	<0.0005	<0.0005	<0.0005	<0.0005
	Xylene	<0.0005	0.0092	<0.0005	<0.0005
12/23/86	THC	0.077	4.10	<0.050	<0.050
	Benzene	0.032	0.97	<0.0005	<0.0005
	Toluene	0.0047	0.096	<0.0005	<0.0005
	Xylene	0.0020	0.75	<0.0005	<0.0005
8/18/86	THC	<0.050	58	<0.050	<0.050
	Benzene	<0.001	4.3	<0.001	<0.001
	Toluene	<0.001	0.39	<0.001	<0.001
	Xylene	<0.001	1.8	<0.001	<0.001



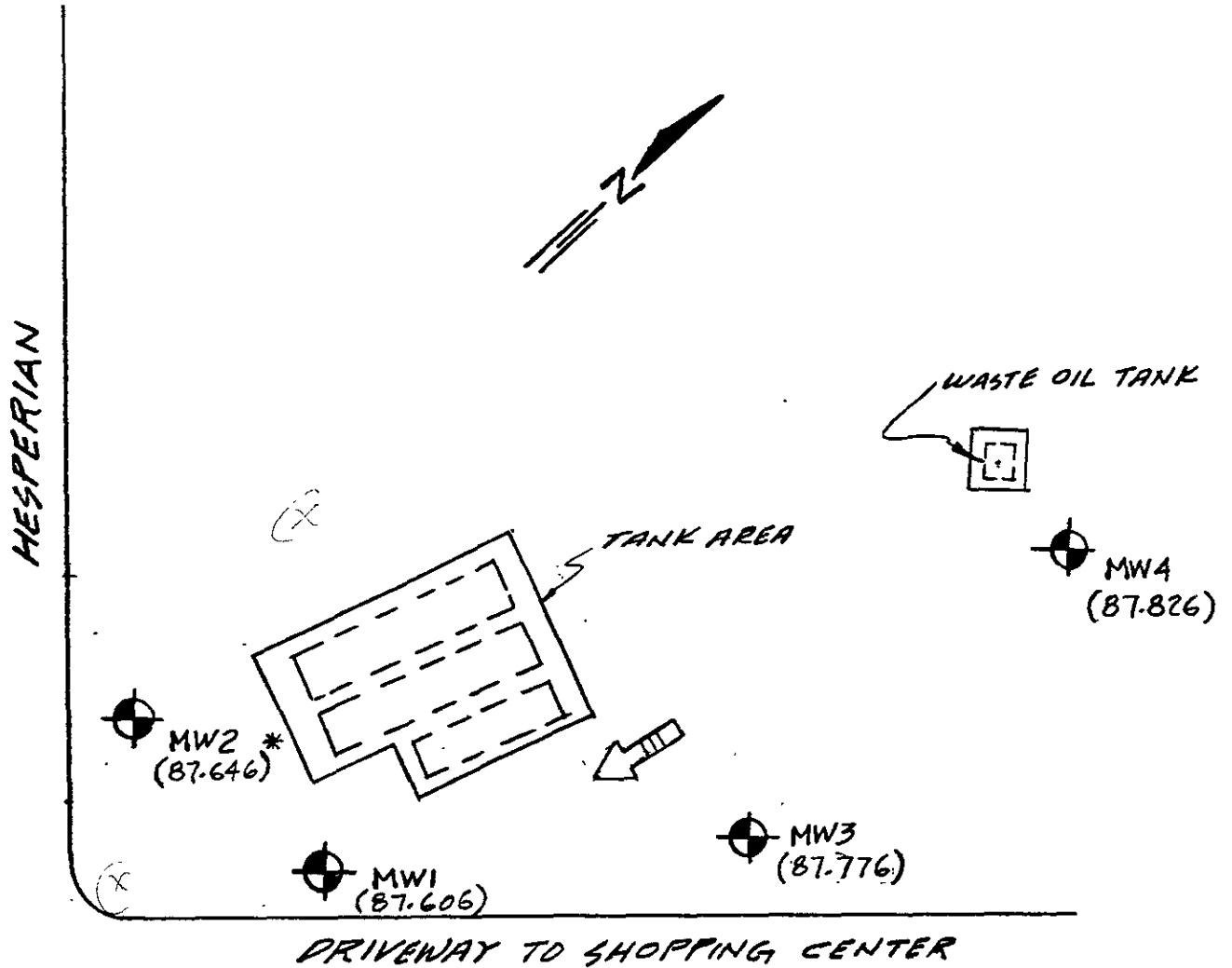
KAPREALIAN ENGINEERING, INC.

Consulting Engineers

535 Main Street

Martinez, Ca. 94553

(415) 372-5444



LOCATION PLAN

N.T.S.

 MW (MONITORING WELL)

() ELEVATION OF GROUNDWATER (FT.)

* SURFACE ELEV. OF MW2 ASSUMED 100.00 FT. (DATUM)

 GENERAL DIRECTION OF GROUND-WATER FLOW



SEQUOIA Analytical Laboratory

2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Kaprealian Engineering, Inc.
P.O. Box 913
Benicia, CA 94510
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 09/02/87
Date Received: 09/03/87
Date Reported: 09/11/87

Sample Number

7090301

Sample Description

Mobil at 15884 Hesperian Way
in San Lorenzo,
Water, MW - 1

ANALYSIS

	<u>Detection Limit</u> ppb	<u>Sample Results</u> ppb
Total Hydrocarbons as Gasoline	50	< 50
Benzene	0.5	< 0.5
Toluene	0.5	< 0.5
Xylenes	0.5	< 0.5

NOTE: Analysis was performed using EPA method 602.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

sls



SEQUOIA Analytical Laboratory

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P.O. Box 913
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Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 09/02/87
Date Received: 09/03/87
Date Reported: 09/11/87

Sample Number

7090302

Sample Description

Mobil at 15884 Hesperian Way
in San Lorenzo, CA - Water
MW 2

ANALYSIS

	<u>Detection Limit</u> ppb	<u>Sample Results</u> ppb
Total Hydrocarbons as Gasoline	50	710,000
Benzene	0.5	980
Toluene	0.5	3,000
Xylenes	0.5	33,000

NOTE: Analysis was performed using EPA method 602.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

mpr



SEQUOIA Analytical Laboratory

2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Kaprealian Engineering, Inc.
P.O. Box 913
Benicia, CA 94510
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 09/02/87
Date Received: 09/03/87
Date Reported: 09/11/87

Sample Number

7090303

Sample Description

Mobil at 15884 Hesperian Way
in San Lorenzo, CA - Water
MW - 3

ANALYSIS

	<u>Detection Limit</u> ppb	<u>Sample Results</u> ppb
Total Hydrocarbons as Gasoline	50	< 50
Benzene	0.5	< 0.5
Toluene	0.5	< 0.5
Xylenes	0.5	< 0.5

NOTE: Analysis was performed using EPA method 602.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

mpr



SEQUOIA Analytical Laboratory

2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Kaprealian Engineering, Inc.
P.O. Box 913
Benicia, CA 94510
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 09/02/87
Date Received: 09/03/87
Date Reported: 09/11/87

Sample Number

7090304

Sample Description

Mobil at 15884 Hesperian Way
in San Lorenzo, CA - Water
MW - 4

ANALYSIS

	<u>Detection Limit</u> ppb	<u>Sample Results</u> ppb
Total Hydrocarbons as Gasoline	50	< 50
Benzene	0.5	< 0.5
Toluene	0.5	< 0.5
Xylenes	0.5	< 0.5

NOTE: Analysis was performed using EPA method 602.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

mpr

KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER: Ray NEI DATE/TIME OF COLLECTION: 9/2/87 TURNAROUND TIME: 1 Week
 (signature)

SAMPLE DESCRIPTION AND PROJECT NUMBER: MOBIL SAN LORENZO
15884 HESPERIAN WY

SAMPLE #	ANALYSIS	GRAB OR COMP.	NUMBER OF CONTAINERS	SOIL/ WATER
<u>MW1</u>	<u>THC, BTX</u>	<u>Grab</u>	<u>1</u>	<u>W</u>
<u>MW2</u>	<u>THC, BTX</u>	<u>Grab</u>	<u>1</u>	<u>W</u>
<u>MW3</u>	<u>THC, BTX</u>	<u>Grab</u>	<u>1</u>	<u>W</u>
<u>MW4</u>	<u>THC, BTX</u>	<u>Grab</u>	<u>1</u>	<u>W</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

RELINQUISHED BY*	TIME/DATE	RECEIVED BY*	TIME/DATE
<u>1. Ray NEI</u>	<u>9/3/87</u>	<u>Antonio Shanley</u> <u>Imperial County</u>	<u>11:00 AM</u> <u>9-3-87</u>
<u>2.</u>			
<u>3.</u>			
<u>4.</u>			

* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS: Please return signed form to KET