ALTON GEOSCIENCE
THE RESULTS TEAM

March 18, 1994

MOBIL OIL CORPORATION
2063 Main Street, #501
Oakley, California 94537

ALTON GEOSCIENCE
30A Lindbergh Avenue
Livermore, California 94550
Alton Project No. 30-0065

ATTN: MS. CHERINE FOUTCH

SITE: MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA

RE: QUARTERLY PROGRESS REPORT, FIRST QUARTER 1994

This report presents the results of joint fluid-level monitoring and ground water sampling with Kaprealian Engineering Inc. (KEI). ~~On January~~ 27, 1994, fluid-levels were measured from Monitoring Wells MW-1 through MW-12 and RW-1, with the exception of MW-3, MW-5, MW-7, MW-8 which were dry. In accordance with standard regulatory protocol, a ground water sample was not collected from Monitoring Well MW-2 and RW-1 due to the presence of free product. In addition, monitoring and sampling data was obtained from Unocal Station No. 0543 for Monitoring Wells MW-1 through MW-5. Ground water samples were submitted to a state-certified laboratory for analysis. The results are attached.

ATTACHMENTS:

- Figure 1: Vicinity Map
- Figure 2: Ground Water Elevation Contour Map
- Figure 3: Dissolved-Phase Hydrocarbon Concentrations
- Table 1: Summary of Ground Water Sampling and Analyses
- Appendix: Field Procedures, Laboratory Reports and Chain of Custody Records

Please call us at (510) 606-9150, if you have any questions regarding this project.

ALTON GEOSCIENCE
Northern California Operations

Ron Scheele
Staff Geologist

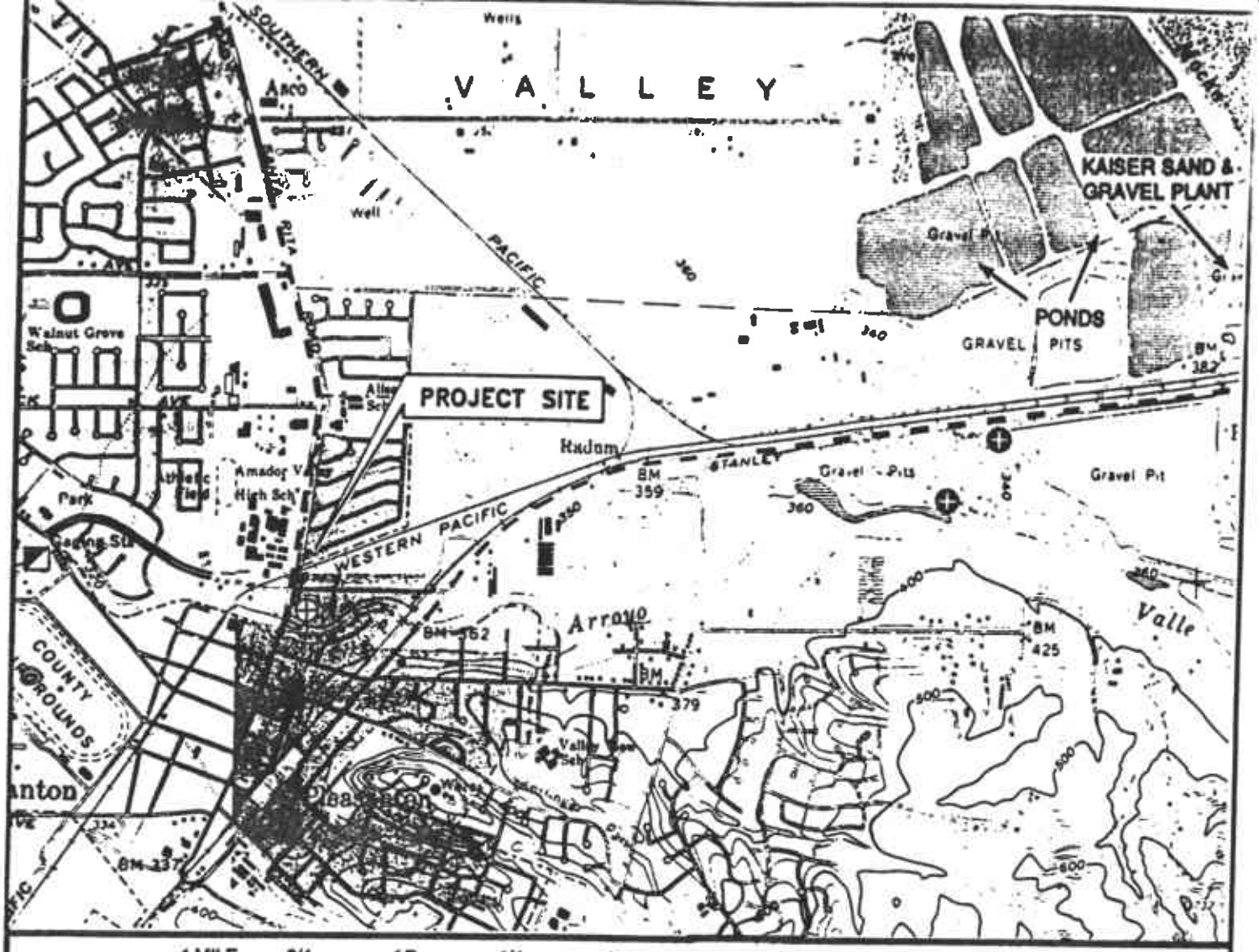
James A. Lehrman, R.G.
Associate

REGISTERED GEOLOGIST
JAMES A. LEHRMAN
No. 5032
STATE OF CALIFORNIA

The ongoing project services summarized in this report have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. The findings are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.

cc: Mr Craig Mayfield, Alameda County Flood Control and Water Control District
Mr. Lester Feldman, California Regional Water Quality Control Board, San Francisco Bay Region

30A Lindbergh Avenue
Livermore, California 94550
(510) 606-9150 • FAX (510) 606-9260



SCALE 1:24,000

N

Source: U.S.G.S. Map
Livermore Quadrangle
California
7.5 Minute Series

LEGEND

- U.S.G.S. Gauging Station
- City of Pleasanton Monitoring Well
- Kaiser Discharge to Arroyo Valle

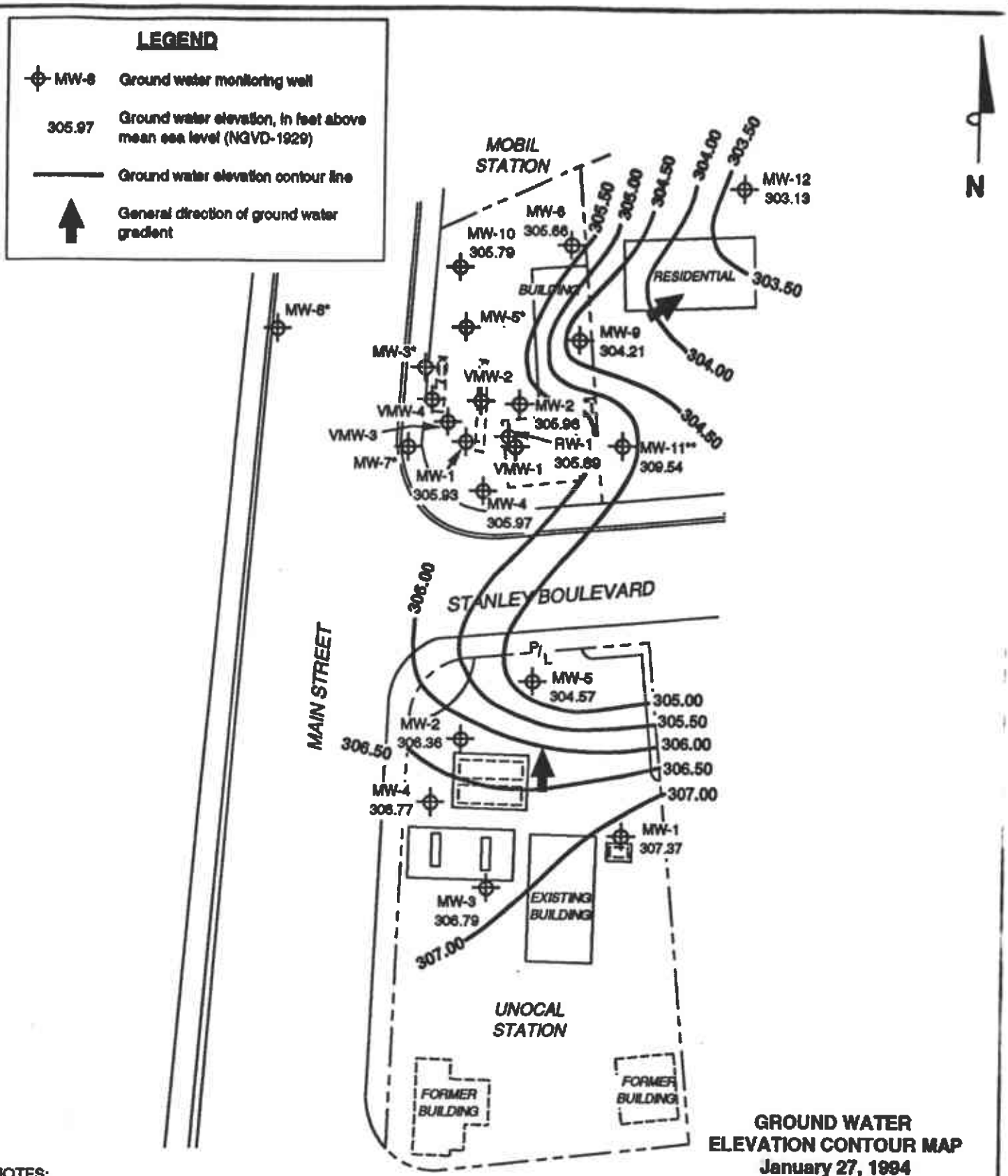
VICINITY MAP

Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California

ALTON GEOSCIENCE
Livermore, California

Project No. 30-0065

FIGURE 1



NOTES:
Contours are interpretive based on fluid level measurements collected January 27, 1994.
Contour interval = 0.5 feet.
* = dry monitoring well.
** = anomalous data, monitoring well not used in contouring.

ALTON GEOSCIENCE
Livermore, California

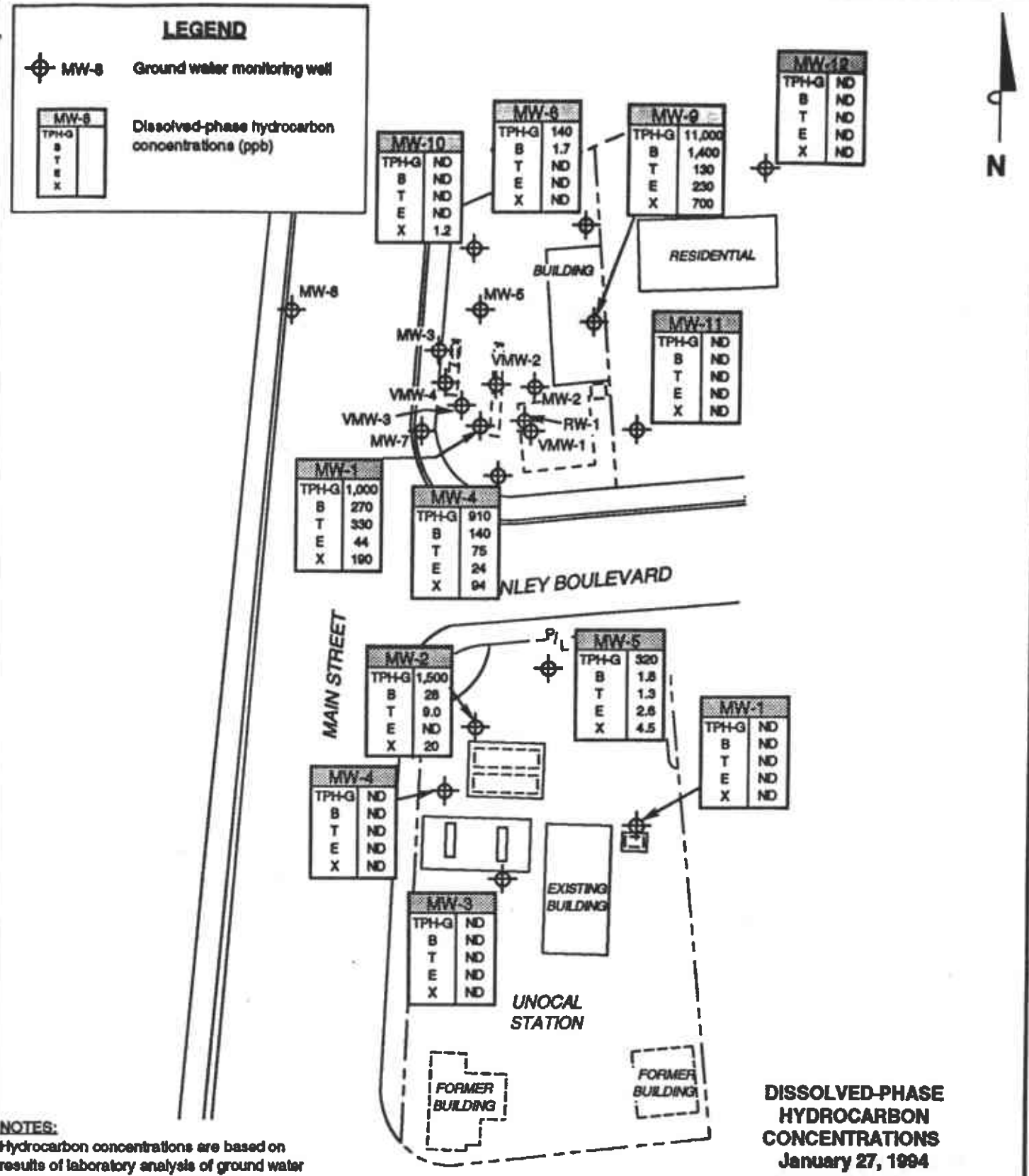
SCALE (feet)
0 30 60

GROUND WATER ELEVATION CONTOUR MAP
January 27, 1994

Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California
and
Unocal Station #0543
922 Main Street
Pleasanton, California

FIGURE 2

30-0065/Site Plan 3/23/94



NOTES:
Hydrocarbon concentrations are based on results of laboratory analysis of ground water samples collected January 27, 1994.
ND = not detected at detection limits stated in official laboratory reports. TPH-G= total petroleum hydrocarbons as gasoline; B = benzene; T = toluene; E = ethylbenzene; X = total xylenes; ppb = parts per billion.

SCALE (feet)
0 30 60

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS
January 27, 1994

Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California
and
Unocal Station #0543
922 Main Street
Pleasanton, California

FIGURE 3

ALTON GEOSCIENCE
Livermore, California

30-0065/Site Plan 3/23/94

Table 1
Summary of Ground Water Sampling and Analyses
Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California

Well ID	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)	Lab
MW-1	04/12/90	348.03	0.00	43.57	304.46	3,600	—	73	13	3	180	45	ND<10	—	SAL
	10/18/90		0.00	43.18	304.85	5,000	ND<1000	700	360	170	480	54	—	—	SAL
	06/06/91		0.00	38.65	309.38	2,600	—	310	340	110	340	ND<25	—	ND<5.0	SAL
	01/08/92		0.00	38.68	309.35	2,400	—	270	370	18	340	14	ND<50		SAL
	04/30/92		0.00	39.93	308.10	1,300	—	150	120	12	160	4.3	—	—	SEQ
	07/31/92		0.00	43.05	304.98	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
	10/27/92		0.00	42.66	305.17	2,700	—	320	310	84	310	—	—	—	SEQ
	01/22/93		0.00	34.66	313.15	2,600	—	190	340	87	320	—	—	—	SEQ
	04/05/93		0.00	33.71	314.32	6,000	—	410	460	51	500	—	—	—	SEQ
	07/06/93		0.00	35.46	312.57	2,200	—	140	240	32	180	—	—	—	SEQ
	11/30/93		0.00	37.81	310.22	450	—	68	34	ND<0.5	48	—	—	—	SEQ
	01/27/94		0.00	42.10	305.93	1,000	—	270	330	44	190	—	—	—	SEQ
MW-2	04/12/90	348.45	0.00	44.14	304.31	64,000	—	5,500	7,600	1,900	7,800	200	ND<10	—	SAL
	10/18/90		0.00	43.18	305.27	83,000	10,000	6,800	9,100	2,400	11,000	460	—	—	SAL
	06/06/91		0.00	39.19	309.26	160,000	—	16,000	25,000	4,300	19,000	330	—	330	SEQ
	01/08/92		0.02	39.40	309.07	—	—	—	—	—	—	—	—	—	—
	04/30/92		0.00	40.50	307.95	71,000	—	9,200	19,000	3,700	15,000	420	—	—	SEQ
	07/31/92		0.15	43.64	304.93	—	—	—	—	—	—	—	—	—	—
	10/27/92		Trace	43.53	304.92	—	—	—	—	—	—	—	—	—	—
	01/22/93		Trace	35.55	312.90	—	—	—	—	—	—	—	—	—	—
	04/05/93		Trace	34.41	314.04	—	—	—	—	—	—	—	—	—	—
	07/06/93		Trace	35.98	312.47	—	—	—	—	—	—	—	—	—	—
	11/30/93		0.48	38.78	310.05	—	—	—	—	—	—	—	—	—	—
	01/27/94		0.01	42.50	305.96	—	—	—	—	—	—	—	—	—	—
MW-3	04/12/90	347.97	0.00	23.18	324.79	2,100	—	32	56	31	170	117	ND<10	—	SAL
	10/18/90		0.00	14.28	333.69	110	ND<1000	3	3	1	5	2	—	—	SAL
	06/06/91		—	Dry	—	—	—	—	—	—	—	—	—	—	—

NOTES: ppb = parts per billion (µg/l)
TPH-G = total petroleum hydrocarbons as gasoline
TPH-D = total petroleum hydrocarbons as diesel
ND = not detected at detection limits stated in official laboratory reports
— = not measured/not analyzed/not applicable
1,2-DCE = 1,2-Dichloroethane
* = reported by laboratory as non-gasoline mixture
** = well inaccessible

# = wells installed by Kaprealian Engineering at former Unocal Station #0543; resurveyed by Kier & Wright Civil Engineers & Surveyors, Inc. 09/20/93.
SAL = Superior Analytical Laboratories
SEQ = Sequoia Analytical
Casing and ground water elevations are in feet above mean sea level (NGVD-1929).

Table 1
Summary of Ground Water Sampling and Analyses
Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California

Well ID	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)	Lab
MW-3	01/08/92		0.00	32.36	315.61	680	—	8.9	26	8.5	72	5.7	—	—	SEQ
(con't)	04/30/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	07/31/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	10/27/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/22/93		0.00	27.30	320.67	2,600	—	240	300	170	440	—	—	—	SEQ
	04/05/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	07/06/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—	—
MW-4	10/18/90	348.07	0.00	43.16	304.91	9,600	2,000	180	500	200	1,200	9	—	—	SAL
	08/06/91		0.00	38.65	309.42	8,600	—	320	420	220	650	ND<25	—	ND<5.0	SEQ
	01/08/92		0.00	38.65	309.42	3,400	—	600	880	220	1,100	9.2	ND<50	—	SEQ
	04/30/92		0.00	39.86	308.19	7,200	—	650	1,200	210	1,200	ND<50	—	—	SEQ
	07/31/92		0.00	43.07	305.00	3,800	—	320	340	120	360	—	—	—	SEQ
	10/27/92		0.00	42.78	305.29	9,000	—	440	750	190	900	—	—	—	SEQ
	01/22/93		0.00	34.76	313.31	12,000	—	540	1,200	320	1,900	—	—	—	SEQ
	04/05/93		0.00	33.61	314.46	1,100	—	34	18	12	31	—	—	—	SEQ
	07/06/93		0.00	35.37	312.70	4,000	—	220	300	43	440	—	—	—	SEQ
	11/30/93		0.00	37.78	310.29	1,400	—	140	83	54	110	—	—	—	SEQ
	01/27/94		0.00	42.10	305.97	910	—	140	75	24	94	—	—	—	SEQ
MW-5	10/18/90	347.97	—	**	—	—	—	—	—	—	—	—	—	—	—
	08/06/91		0.00	34.25	313.72	—	—	—	—	—	—	—	—	—	—
	01/08/92		0.00	34.22	313.75	—	—	—	—	—	—	—	—	—	—
	04/30/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	07/31/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	10/27/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/22/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—

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TPH-D = total petroleum hydrocarbons as diesel
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— = not measured/not analyzed/not applicable
1,2-DCE = 1,2-Dichloroethane
* = reported by laboratory as non-gasoline mixture
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Pleasanton, California

Well ID	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)	Lab
MW-5	04/05/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
(con't)	07/06/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—	—
MW-6	10/18/90	346.23	0.00	43.80	304.63	3,000	ND<1000	1,300	150	120	85	140	—	—	SAL
	06/06/91		0.00	39.07	309.16	1,600	—	220	10	5.2	14	8.3	—	ND<5.0	SEQ
	01/08/92		0.00	39.18	309.05	370	—	61	3.9	4.5	2.9	5.4	ND<50	—	SEQ
	04/30/92		0.00	40.46	307.77	610	—	180	8.4	6.8	3.3	7.0	—	—	SEQ
	07/31/92		0.00	43.61	304.62	96	—	1,500	1,500	370	1,100	—	—	—	SEQ
	10/27/92		0.00	43.68	304.55	9,400	—	27	ND<0.5	6	10	—	—	—	SEQ
	01/22/93		0.00	35.66	312.57	250	—	12	2.4	1.4	1.9	—	—	—	SEQ
	04/05/93		0.00	34.41	313.82	190	—	2.3	0.99	ND<0.5	0.5	—	—	—	SEQ
	07/06/93		0.00	36.01	312.22	99	—	1.4	0.54	ND<0.5	ND<0.5	—	—	—	SEQ
	11/30/93		0.00	36.36	309.87	86	—	9.1	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
	01/27/94		0.00	42.57	305.66	140	—	1.7	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
MW-7	10/18/90	347.90	0.00	9.26	338.64	ND<50	ND<1000	0	0.5	ND<0.3	0.8	ND<0.5	—	—	SAL
	06/06/91		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/08/92		0.00	23.79	324.11	220	—	7.8	1.7	ND<0.3	0.55	—	—	—	SEQ
	04/30/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	07/31/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	10/27/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/22/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	04/05/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	07/06/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—	—

NOTES: ppb = parts per billion (µg/l)
TPH-G = total petroleum hydrocarbons as gasoline
TPH-D = total petroleum hydrocarbons as diesel
ND = not detected at detection limits stated in official laboratory reports
— = not measured/not analyzed/not applicable
1,2-DCE = 1,2-Dichloroethane
* = reported by laboratory as non-gasoline mixture
** = well inaccessible
# = wells installed by Kaprealian Engineering at former Unocal Station #0543; resurveyed by Kier & Wright Civil Engineers & Surveyors, Inc. 09/20/93.
SAL = Superior Analytical Laboratories
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Casing and ground water elevations are in feet above mean sea level (NGVD-1929).

Table 1
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1024 Main Street
Pleasanton, California

Well ID	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)	Lab
MW-8	10/18/90	348.90	0.00	11.30	337.60	900	ND<1000	3	5	7	62	ND<0.5	—	—	SAL
	06/06/91		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/06/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	04/30/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	07/31/92		0.00	12.04	336.86	270 *	—	ND<0.5	ND<0.5	ND<0.5	1.3	—	—	—	SEQ
	10/27/92		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/22/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	04/05/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	07/06/93		0.00	7.48	341.42	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
	11/30/93		—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—	—
MW-9	02/04/92	348.53	0.00	43.54	304.99	16,000	—	3,000	740	1,200	2,500	68	—	ND<5.0	SEQ
	04/30/92		0.00	42.83	305.70	5,600	—	1,000	120	410	350	ND<50	—	—	SEQ
	07/31/92		0.00	47.36	301.17	93	—	1,600	1,900	620	940	—	—	—	SEQ
	10/27/92		0.00	48.32	300.21	13,000	—	2,400	1,600	660	1,100	—	—	—	SEQ
	01/22/93		0.00	36.11	309.42	5,600	—	1,200	200	510	350	—	—	—	SEQ
	04/05/93		0.00	37.10	311.43	7,900	—	1,300	510	620	670	—	—	—	SEQ
	07/06/93		0.00	39.21	309.32	3,200	—	510	46	170	150	—	—	—	SEQ
	11/30/93		0.00	40.58	307.95	2,800	—	610	28	220	65	—	—	—	SEQ
	01/27/94		0.00	44.32	304.21	11,000	—	1,400	130	230	700	—	—	—	SEQ
MW-10	11/30/93	347.95	0.00	37.97	309.98	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
	01/27/94		0.00	42.16	305.79	ND<50	—	ND<0.5	ND<0.5	ND<0.5	1.2	—	—	—	SEQ
MW-11	11/30/93	347.56	0.00	38.41	309.15	ND<50	—	ND<0.5	ND<0.5	ND<0.5	1.6	—	—	—	SEQ
	01/27/94		0.00	38.02	309.54	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
MW-12	11/30/93	347.16	0.00	37.97	309.18	55	—	1.8	4.3	2.5	11	—	—	—	SEQ
	01/27/94		0.00	44.02	303.13	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ

NOTES: ppb = parts per billion (µg/l)
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TPH-D = total petroleum hydrocarbons as diesel
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1,2-DCE = 1,2-Dichloroethane
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Table 1
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1024 Main Street
Pleasanton, California

Well ID	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)	Lab
VMW-1	11/30/93	348.05	—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—	—
VMW-2	11/30/93	347.90	—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—	—
VMW-3	11/30/93	348.10	—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—	—
VMW-4	11/30/93	347.95	—	Dry	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—	—
RW-1	11/30/93	347.89	Trace	37.75	310.14	—	—	—	—	—	—	—	—	—	—
	01/27/94		Trace	42.00	305.89	—	—	—	—	—	—	—	—	—	—
MW-1#	12/16/92	351.18	—	—	—	ND	ND	ND	ND	ND	ND	—	—	—	—
	02/02/93		0.00	37.76	313.42	—	—	—	—	—	—	—	—	—	—
	03/01/93		0.00	36.26	314.92	—	—	—	—	—	—	—	—	—	—
	04/14/93		0.00	36.56	314.62	ND	ND	ND	ND	ND	ND	—	—	—	—
	06/14/93		0.00	37.27	313.91	—	—	—	—	—	—	—	—	—	—
	09/15/93		0.00	38.02	313.16	—	—	—	—	—	—	—	—	—	—
	07/06/93		0.00	38.06	313.12	ND	ND	ND	ND	ND	ND	—	—	—	—
	11/30/93	350.78	—	—	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		0.00	43.41	307.37	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
MW-2#	12/16/92	349.83	—	—	—	1,600	—	28	ND	5.1	5.6	—	—	—	—
	02/02/93		0.00	39.18	310.65	—	—	—	—	—	—	—	—	—	—
	03/01/93		0.00	34.33	315.50	—	—	—	—	—	—	—	—	—	—

NOTES: ppb = parts per billion (µg/l)
TPH-G = total petroleum hydrocarbons as gasoline
TPH-D = total petroleum hydrocarbons as diesel
ND = not detected at detection limits stated in official laboratory reports
— = not measured/not analyzed/not applicable
1,2-DCE = 1,2-Dichloroethane
* = reported by laboratory as non-gasoline mixture
** = well inaccessible

# = wells installed by Kaprealian Engineering at former Unocal Station #0543; resurveyed by Kier & Wright Civil Engineers & Surveyors, Inc. 09/20/93.
SAL = Superior Analytical Laboratories
SEQ = Sequoia Analytical
Casing and ground water elevations are in feet above mean sea level (NGVD-1929).

Table 1
Summary of Ground Water Sampling and Analyses
Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California

Well ID	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)	Lab
MW-2#	04/14/93		0.00	37.56	312.27	4,300	—	7.2	5.8	13	10	—	—	—	—
(con't)	05/14/93		0.00	37.49	312.34	—	—	—	—	—	—	—	—	—	—
	06/15/93		0.00	39.34	310.49	—	—	—	—	—	—	—	—	—	—
	07/06/93		0.00	37.82	312.01	4,700	—	17	15	30	28	—	—	—	—
	11/30/93	349.51	—	—	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		0.00	43.15	306.36	1,500	—	28	9.0	ND<0.5	20	—	—	—	SEQ
MW-3#	12/16/92	351.35	—	—	—	ND	—	ND	ND	ND	ND	—	—	—	—
	02/02/93		0.00	40.62	310.73	—	—	—	—	—	—	—	—	—	—
	03/01/93		0.00	35.7	315.65	—	—	—	—	—	—	—	—	—	—
	04/14/93		0.00	38.97	312.38	ND	—	ND	ND	ND	ND	—	—	—	—
	05/14/93		0.00	39.07	312.28	—	—	—	—	—	—	—	—	—	—
	06/15/93		0.00	40.68	310.67	—	—	—	—	—	—	—	—	—	—
	07/06/93		0.00	37.82	313.53	ND	—	ND	ND	ND	ND	—	—	—	—
	11/30/93	351.04	—	—	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		0.00	44.25	306.79	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
MW-4#	01/27/94	350.14	0.00	43.37	306.77	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	SEQ
MW-5#	01/27/94	349.33	0.00	44.76	304.57	320	—	1.8	1.3	2.6	4.5	—	—	—	SEQ

NOTES: ppb = parts per billion (µg/l)
TPH-G = total petroleum hydrocarbons as gasoline
TPH-D = total petroleum hydrocarbons as diesel
ND = not detected at detection limits stated in official laboratory reports
— = not measured/not analyzed/not applicable
1,2-DCE = 1,2-Dichloroethane
* = reported by laboratory as non-gasoline mixture
** = well inaccessible

# = wells installed by Kaprealian Engineering at former Unocal Station #0543; resurveyed by Kier & Wright Civil Engineers & Surveyors, Inc. 09/20/93.
SAL = Superior Analytical Laboratories
SEQ = Sequoia Analytical
Casing and ground water elevations are in feet above mean sea level (NGVD-1929).

APPENDIX

GENERAL FIELD PROCEDURES

General field procedures used during fluid level monitoring and ground water sampling activities are described below.

FLUID LEVEL MONITORING

Fluid levels are monitored in the wells using an electronic interface probe with conductance sensors. The presence of liquid-phase hydrocarbons is verified using a hydrocarbon-reactive paste. The depth to liquid-phase hydrocarbons and water is measured relative to the well box top or top of casing. Well box or casing elevations are surveyed to within 0.02 foot relative to a county or city bench mark.

GROUND WATER SAMPLING

Ground water monitoring wells are purged and sampled in accordance with standard regulatory protocol. Typically, monitoring wells that contain no liquid-phase hydrocarbons are purged of ground water prior to sampling so that fluids sampled are representative of fluids within the formation. Temperature, pH, and specific conductance are typically measured after each well casing volume has been removed. Purging is considered complete when these parameters vary less than 10% from the previous readings, or when four casing volumes of fluid have been removed. Samples are collected without further purging if the well does not recharge within 2 hours to 80% of its volume before purging.

The purged water is either pumped directly into a licensed vacuum truck or temporarily stored in labeled DOT-approved drums prior to transport to an appropriate treatment or recycling facility. If an automatic recovery system (ARS) is operating at the site, purged water may be pumped into the ARS for treatment.

Ground water samples are collected by lowering a 1.5-inch-diameter, bottom-fill, disposable polyethylene bailer just below the static water level in the well. The samples are carefully transferred from the check-valve-equipped bailer to 1-liter and 40-milliliter glass containers. The sample containers are filled to zero headspace and fitted with Teflon-sealed caps. Each sample is labeled with the project number, well number, sample date, and sampler's initials. Samples remain chilled at approximately 4°C prior to analysis by a state-certified laboratory.

SEQUOIA ANALYTICAL

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

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Jim L.

Client Project ID: Mobil 04-H6J / 30-00065
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 401-1386

Sampled: Jan 27, 19
Received: Jan 28, 19
Reported: Feb 7, 19

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 401-1386 MW-1	Sample I.D. 401-1387 MW-4	Sample I.D. 401-1388 MW-6	Sample I.D. 401-1389 MW-9	Sample I.D. 401-1390 MW-10	Sample I.D. 401-1391 MW-11
Purgeable Hydrocarbons	50	1,000	910	140	11,000	N.D.	N.D.
Benzene	0.5	270	140	1.7	1,400	N.D.	N.D.
Toluene	0.5	330	75	N.D.	130	N.D.	N.D.
Ethyl Benzene	0.5	44	24	N.D.	230	N.D.	N.D.
Total Xylenes	0.5	190	94	N.D.	700	1.2	N.D.
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	40	1.0	1.0
Date Analyzed:	2/3/94	2/3/94	2/4/94	2/4/94	2/3/94	2/3/94
Instrument Identification:	HP-5	HP-5	HP-4	HP-4	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	90	87	96	92	93	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

Karen L. Enstrom
Project Manager

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

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Jim L.

Client Project ID: Mobil 04-H6J / 30-00065
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 401-1392

Sampled: Jan 27, 199
Received: Jan 28, 199
Reported: Feb 7, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 401-1392 MW-12
Purgeable Hydrocarbons	50	N.D.
Benzene	0.5	N.D.
Toluene	0.5	N.D.
Ethyl Benzene	0.5	N.D.
Total Xylenes	0.5	N.D.
Chromatogram Pattern:		--

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	2/3/94
Instrument Identification:	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	105

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

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

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

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Jim L.

Client Project ID: Mobil 04-H6J / 30-00065
Matrix: Liquid

QC Sample Group: 4011386-92

Reported: Feb 7, 199

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha
MS/MSD Batch#:	4011220	4011220	4011220	4011220
Date Prepared:	2/3/94	2/3/94	2/3/94	2/3/94
Date Analyzed:	2/3/94	2/3/94	2/3/94	2/3/94
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	110	105	95	98
Matrix Spike Duplicate % Recovery:	115	105	95	98
Relative % Difference:	4.4	0.0	0.0	0.0
LCS Batch#:	3LCS020394	3LCS020394	3LCS020394	3LCS020394
Date Prepared:	2/3/94	2/3/94	2/3/94	2/3/94
Date Analyzed:	2/3/94	2/3/94	2/3/94	2/3/94
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	110	102	92	94
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Karen L. Enstrom
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.

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Alton Geoscience	Site SS #: Mobil 04-HGJ	Phase of Work:
Address: 30A Lindbergh Ave	Mobil Site Address: 1024 Main St	☐ A. Emrg. Response
City: Livermore State: CA Zip Code: 94550	Mobil Engineer: Cherie F.	☐ B. Site Assessment
Telephone: (510)606 9150 FAX #: (510)606-9260	Consultant Project #: 30-00085	☐ C. Remediation
Project Contact: Jim L. Sampled by: Jim. S.	Sequoia's Work Order Release #:	☑ D. Monitoring
		☐ E. OGC/Claims

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days)
☐ Other _____

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2				Comments
1. MW-1	1-27	H20	2		X							401386 A-B
2. MW-4					X							1387
3. MW-6					X							1388
4. MW-9					X							1389
5. MW-10					X							1390
6. MW-11					X							1391
7. MW-12					X							1392
8.												
9.												
10.												

Relinquished By:	Date: 1-27	Time: 2:00	Received By:	Date: 1-28-94	Time: 4:30
Relinquished By:	Date:	Time:	Received By:	Date: 1/28/94	Time: 1800
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Method of Shipment

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

A

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

Client Project ID: Unocal # 0545, 992 Main St., Pleasanton
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 401-1484

Sampled: Jan 27, 19
Received: Jan 28, 19
Reported: Feb 11, 19

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 401-1484 MW-1	Sample I.D. 401-1485 MW-2	Sample I.D. 401-1486 MW-3	Sample I.D. 401-1487 MW-4	Sample I.D. 401-1488 MW-5	Sample I.D. Method Blank
Purgeable Hydrocarbons	50	N.D.	1,500	N.D.	N.D.	320	
Benzene	0.5	N.D.	26	N.D.	N.D.	1.8	
Toluene	0.5	N.D.	9.0	N.D.	N.D.	1.3	
Ethyl Benzene	0.5	N.D.	N.D.	N.D.	N.D.	2.6	
Total Xylenes	0.5	N.D.	20	N.D.	N.D.	4.5	
Chromatogram Pattern:		--	Gasoline	--	--	Gasoline	

Quality Control Data

Report Limit Multiplication Factor:	1.0	10	1.0	1.0	1.0	1.0
Date Analyzed:	2/9/94	2/9/94	2/9/94	2/9/94	2/9/94	2/9/94
Instrument Identification:	ML #2	ML #2	ML #2	ML #2	ML #2	ML #2
Surrogate Recovery, %: (QC Limits = 70-130%)	89	104	91	89	102	98

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

MPDS
Services, Inc.

CHAIN OF CUSTODY

SAMPLER: Joe

HARMING AGENCY:

SITE NAME & ADDRESS: Unocal / Pleasanton #0543
992 Main st.

ANALYSES REQUESTED: TPH-Gas

TURN AROUND TIME: Regular

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION
MW-1	1/27/94			✓	✓		2	M-Well
MW-2	"			✓	✓		2	"
MW-3	"			✓	✓		2	"
MW-4	"			✓	✓		2	"
MW-5	"			✓	✓		2	"

REMARKS:
4011484 A-B
1485
1486
1487
1488

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Joe	1-28-94		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	1/28/94		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	1/28/94 1557		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

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

1. Have all samples received for analysis been stored in ice? Yes
2. Will samples require refrigerated until analyzed? Yes
3. Did any samples received for analysis have head space? No
4. Were samples in appropriate containers and properly packaged? Yes

Signature | Title | Date