ALISTO ENGINEERING GROUP

October 5, 1995

Mr. Scott Seery
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

10-190-02-005

Subject: **Revised** Additional Site Investigation Report
Former Mobil Oil Corporation Station 04-FGN
14994 East 14th Street
San Leandro, California

Dear Mr. Seery :

On behalf of Mobil Oil Corporation, Alisto Engineering Group is pleased to submit this revised additional site investigation report for former Mobil Oil Corporation Station 04-FGN, 14994 East 14th Street, San Leandro, California.

Please call if you have questions or need additional information.

Sincerely,

ALISTO ENGINEERING GROUP

Ken C. Simas
Project Geologist

cc: Mr. Steven Ritchie, California Regional Water Quality Control Board, San Francisco Bay Region
Mr. Bertram Kubo
Fuk K. Sit and Ying C. Sit
Ms. Cherine Foutch, Mobil Oil Corporation

1575 TREAT BOULEVARD, SUITE 201 • WALNUT CREEK, CA 94598 • (510) 295-1650 • (510) 295-1823
CONTRACTORS LICENSE NO. A-652544

ALISTO ENGINEERING GROUP

September 19, 1995

Mr. Scott Seery
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

10-190-03-003

Subject: Groundwater Monitoring and Sampling Report
Former Mobil Oil Corporation Station 04-FGN
14994 East 14th Street
San Leandro, California

Dear Mr. Seery:

On behalf of Mobil Oil Corporation, Alisto Engineering Group is pleased to submit this report on groundwater monitoring and sampling at former Mobil Oil Corporation Station 04-FGN, 14994 East 14th Street, San Leandro, California.

Please call if you have questions or comments.

Sincerely,

ALISTO ENGINEERING GROUP

Ken Simas
Project Geologist

Enclosure

cc: Ms. Cherine Foutch, Mobil Oil Corporation
Mr. Steven Ritchie, California Regional Water Quality Control Board, San Francisco Bay Region
Mr. Bertram Kubo, 5772 Sellers Avenue, Oakley, California,
Fuk K. Sit and Ying C. Sit, P.O. Box, 160406, Cupertino, California

1575 TREAT BOULEVARD, SUITE 201 • WALNUT CREEK, CA 94598 • (510) 295-1650 • (510) 295-1823
CONTRACTORS LICENSE NO. A-652544

GROUNDWATER MONITORING AND SAMPLING REPORT

Former Mobil Oil Corporation Station 04-FGN
14994 East 14th Street
San Leandro, California

Project No. 10-190-03-003

Prepared for:

Mobil Oil Corporation
2063 Main Street, Suite 501
Oakley, California

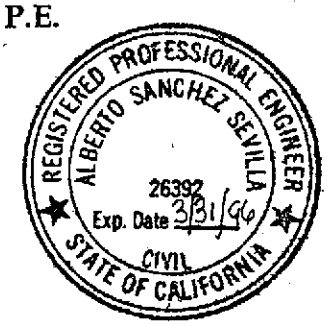
Prepared by:

Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California

August 14, 1995

Ken Simas
Project Geologist

Al Sevilla, P.E.
Principal



GROUNDWATER MONITORING AND SAMPLING REPORT

Former Mobil Oil Corporation Station 04-FGN
14994 East 14th Street
San Leandro, California

Project No. 10-190-03-003

August 14, 1995

INTRODUCTION

This report presents the results and findings of the May 10, 1995 groundwater monitoring and sampling conducted by Alisto Engineering Group at former Mobil Oil Corporation Station 04-FGN, 14994 East 14th Street, San Leandro, California. A site vicinity map is shown in Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of the Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to mean sea level. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Depth to groundwater was also measured at the neighboring Unocal Corporation service station, 15008 East 14th Street, San Leandro, California, on May 10, 1995. The groundwater elevations are presented in Table 2.

Before sample collection, each well was purged of 3 casing volumes, while recording field readings of pH, temperature, and electrical conductivity. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The samples were transferred from the bailer into laboratory-supplied containers. The water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples collected for this and previous quarters are summarized in Table 1. The potentiometric groundwater elevations for the Mobil Oil site, as interpreted from the results of this monitoring event, and groundwater elevations collected from the groundwater monitoring wells at the Unocal site are shown in Figure 2. The results of groundwater analysis are shown in Figure 3. The laboratory report and chain of custody record are presented in Appendix B.

SUMMARY OF FINDINGS

The findings of the May 10, 1995 groundwater monitoring and sampling event are summarized as follows:

- Free product was not observed in the groundwater monitoring wells.
- Interpretation of groundwater elevation data at the site indicates a gradient of 0.03 foot per foot in a southerly direction.
- Total petroleum hydrocarbons as gasoline (TPH-G) was detected in all the monitoring wells, at concentrations of up to 10000 micrograms per liter (ug/l) in MW-1.
- Benzene was detected at concentrations of 31 and 20 ug/l in Monitoring Wells MW-1 and MW-2.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
FORMER MOBIL OIL STATION 04-FGN
14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

ALISTO PROJECT NO. 10-190

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	TOG (ug/l)	KEROSENE (ug/l)	1,2-DCA (ug/l)	PURGEABLE HALOCARBONS (ug/l)	LAB
MW-1 (c)	03/31/88	36.35	—	—	29000	ND<10000	ND<5.0	ND<5.0	550	640	ND<20000	ND<10000	ND	—	CTL
MW-1	01/31/89	36.35	—	—	11200	—	260	ND<20	500	500	—	—	—	ND<1.0	CTL
MW-1	02/24/94	36.35	9.42	26.93	11000	2500	70	ND<0.5	260	180	ND<5000	—	ND	ND (d)	SAL
MW-1	08/23/94	36.35	12.00	24.35	13000	7100	61	50	280	230	ND<5000	—	ND	ND (d)	SAL
MW-1	11/23/94	36.35	11.18	25.17	12000	2500	49	ND<0.5	300	190	10000	—	ND	ND (d)	SAL
MW-1	02/28/95	36.35	9.08	27.27	10000	3200 (e)	25	ND<0.50	110	67	8400	—	1.3	ND (f)	SAL
MW-1	05/10/95	36.35	8.33	28.02	16000	3600 (e)	31	ND<0.50	140	81	7200	—	ND	ND (f)	SAL
MW-2	02/24/94	36.61	9.52	27.09	6400	4500	31	ND<0.5	58	42	ND<5000	—	—	—	SAL
MW-2	08/23/94	36.61	12.05	24.56	7500	7100	42	21	71	53	ND<5000	—	—	—	SAL
MW-2	11/23/94	36.61	11.25	25.36	7000	1800	33	11	39	ND<0.5	7300	—	—	—	SAL
MW-2	02/28/95	36.61	9.10	27.51	9000	1600 (e)	29	36	96	45	6900	—	—	—	SAL
MW-2	05/10/95	36.61	8.42	28.19	5100	1600 (e)	28	27	32	35	3400	—	—	—	SAL
MW-3	02/24/94	36.92	9.85	27.07	19000	10000	52	30	690	290	ND<5000	—	—	—	SAL
MW-3	08/23/94	36.92	12.33	24.59	14000	11000	44	24	1000	100	ND<5000	—	—	—	SAL
MW-3	11/23/94	36.92	11.56	25.36	13000	2600	30	18	690	52	8500	—	—	—	SAL
MW-3	02/28/95	36.92	9.35	27.57	8500	—	11	ND<0.50	340	24	5500	—	—	—	SAL
MW-3	05/10/95	36.92	8.55	28.37	7600	3800	ND<0.50	ND<0.50	400	45	3900	—	—	—	SAL
MW-1 dup (g)	02/24/94	36.35	—	—	11000	—	88	ND<0.5	230	190	—	—	—	—	SAL
MW-1 dup (g)	08/23/94	—	—	—	13000	—	58	38	310	230	—	—	—	—	SAL
MW-3 dup (g)	11/23/94	—	—	—	13000	—	29	15	710	58	—	—	—	—	SAL
MW-3 dup (g)	02/28/95	—	—	—	9500	—	33	ND<0.50	490	56	—	—	—	—	SAL
MW-1 dup (g)	05/10/95	—	—	—	10000	—	32	ND<0.50	130	75	—	—	—	—	SAL
QC-2 (h)	02/24/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	SAL
QC-2 (h)	08/23/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	SAL
QC-2 (h)	11/23/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	SAL
QC-2 (h)	02/28/95	—	—	—	ND<50	—	ND<0.50	ND<0.50	ND<0.50	ND<0.50	—	—	—	—	SAL
QC-2 (h)	05/10/95	—	—	—	ND<50	—	ND<0.50	ND<0.50	ND<0.50	ND<0.50	—	—	—	—	SAL

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
TOG	Total oil and grease
1,2-DCA	1,2-Dichloroethane
ug/l	Micrograms per liter
—	Not measured/analyzed/applicable
ND	Not detected above reported detection limit
CTL	Curtis Thompkins Laboratories
SAL	Sequoia Analytical Laboratory

NOTES:

(a) Top of casing elevations surveyed in reference to Unocal datum, MW-7, elevation at 36.09 feet, on the southeast corner at the intersection of East 14th Street and 150th Avenue.

(b) Groundwater elevations in feet above mean sea level.

(c) A search of 70000 compounds within the Wiley/NBS spectral data library also detected the following: propylbenzene at 240 ug/l, ethylcyclobutane at 98 ug/l, 2-methylpentane at 94 ug/l, 2-methylbutane at 88 ug/l, 2,3-dimethylpentane at 73 ug/l, 2-methylhexane at 58 ug/l, 3-methylhexane at 57 ug/l, and 2,5,6-trimethyloctane at 57 ug/l.

(d) Various detection limits; see laboratory report.

(e) Diesel and unidentified hydrocarbons <C13.

(f) Analysis of sample using EPA Method 8240 detected ethylbenzene and total xylenes. See laboratory report for concentrations.

(g) Blind duplicate; QC-1.

(h) Travel blank.

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
UNOCAL CORPORATION SERVICE STATION
15008 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

ALISTO PROJECT NO. 10-190

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	LAB
MW-1	08/23/93	---	---	---	24000	160	110	840	810	---
MW-1	11/23/93	---	---	---	18000	210	63	900	620	---
MW-1	02/24/94	36.37	9.45	26.92	18000	74	30	940	480	---
MW-1	08/23/94	36.37	11.98	24.39	24000	130	57	970	320	SAL
MW-1	11/23/94	36.37	11.17	25.20	---	---	---	---	---	---
MW-1	02/03/95	36.37	8.01	28.36	---	---	---	---	---	---
MW-1	05/10/95	36.37	8.51	27.86	---	---	---	---	---	---
MW-2	08/23/93	---	---	---	15000	110	ND	590	64	---
MW-2	11/23/93	---	---	---	11000	80	10	480	20	---
MW-2	02/24/94	36.34	9.27	27.07	11000	44	ND	580	32	---
MW-2	08/23/94	36.34	11.82	24.52	12000	45	10	360	20	SAL
MW-2	11/23/94	36.34	10.97	25.37	---	---	---	---	---	---
MW-2	02/03/95	36.34	7.87	28.47	---	---	---	---	---	---
MW-2	02/03/95	36.34	8.38	27.96	---	---	---	---	---	---
MW-3	08/23/93	---	---	---	2900	25	ND	50	18	---
MW-3	11/23/93	---	---	---	2300	34	ND	24	5.6	---
MW-3	02/24/94	36.42	9.21	27.21	3400	46	ND	53	11	---
MW-3	08/23/94	36.42	11.88	24.54	2900	37	49	14	2.9	SAL
MW-3	11/23/94	36.42	10.98	25.44	---	---	---	---	---	---
MW-3	02/03/95	36.42	7.89	28.53	---	---	---	---	---	---
MW-3	05/10/95	36.42	8.38	28.04	---	---	---	---	---	---
MW-4	08/23/93	---	---	---	1200	5	ND	16	ND	---
MW-4	11/23/93	---	---	---	720	10	ND	8.7	ND	---
MW-4	02/24/94	37.04	9.89	27.15	1300	8.9	ND	20	ND	---
MW-4	08/23/94	37.04	12.57	24.47	690	9.2	1.3	7.1	1.9	SAL
MW-4	11/23/94	37.04	11.65	25.39	---	---	---	---	---	---
MW-4	02/03/95	37.04	8.52	28.52	---	---	---	---	---	---
MW-4	05/10/95	37.04	9.97	27.07	---	---	---	---	---	---
MW-5	08/23/93	---	---	---	61000	340	380	3600	14000	---
MW-5	11/23/93	---	---	---	46000	290	310	4100	15000	---
MW-5	02/24/94	35.94	9.02	26.92	57000	140	400	4400	16000	---
MW-5	08/23/94	35.94	11.57	24.37	61000	360	380	4800	17000	SAL
MW-5	11/23/94	35.94	10.71	25.23	---	---	---	---	---	---
MW-5	02/03/95	35.94	7.69	28.25	---	---	---	---	---	---
MW-5	05/10/95	35.94	8.20	27.74	---	---	---	---	---	---

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
UNOCAL CORPORATION SERVICE STATION
15008 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

ALISTO PROJECT NO. 10-190

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	LAB
MW-6	08/23/93	---	---	---	1000	9.4	2.3	5	2.3	---
MW-6	11/23/93	---	---	---	520	ND	1.7	1.9	0.82	---
MW-6	02/24/94	35.67	8.39	27.28	810	12	ND	2.6	0.77	---
MW-6	08/23/94	35.67	10.97	24.70	570	6.8	2.5	3.2	2.6	SAL
MW-6	11/23/94	35.67	10.21	25.46	---	---	---	---	---	---
MW-6	02/03/95	35.67	6.99	28.68	---	---	---	---	---	---
MW-6	05/10/95	35.67	7.53	28.14	---	---	---	---	---	---
MW-7	08/23/93	---	---	---	33000	360	ND	2500	4300	---
MW-7	11/23/93	---	---	---	19000	310	30	2500	2300	---
MW-7	02/24/94	36.09	8.95	27.14	16000	220	19	2400	3200	---
MW-7	08/23/94	36.09	11.43	24.66	19000	210	50	2000	2800	SAL
MW-7	11/23/94	36.09	10.69	25.40	---	---	---	---	---	---
MW-7	02/03/95	36.09	7.49	28.60	---	---	---	---	---	---
MW-7	05/10/95	36.09	7.88	28.21	---	---	---	---	---	---
MW-8	08/23/93	---	---	---	280	49	4.5	ND	ND	---
MW-8	11/23/93	---	---	---	1800	ND	3.4	ND	ND	---
MW-8	02/24/94	36.89	10.44	26.45	1200	10	2.3	ND	3.2	---
MW-8	08/23/94	36.89	12.61	24.28	3200	45	18	2	7.2	SAL
MW-8	11/23/94	36.89	11.98	24.91	---	---	---	---	---	---
MW-8	02/03/95	36.89	9.16	27.73	---	---	---	---	---	---
MW-8	05/10/95	36.89	9.35	27.54	---	---	---	---	---	---
MW-9	08/23/93	---	---	---	3000	29	ND	ND	ND	---
MW-9	11/23/93	---	---	---	2500	23	2.1	ND	ND	---
MW-9	02/24/94	36.29	9.74	26.55	2900	35	ND	ND	ND	---
MW-9	08/23/94	36.29	11.99	24.30	2800	28	32	ND	ND	SAL
MW-9	11/23/94	36.29	11.31	24.98	---	---	---	---	---	---
MW-9	02/03/95	36.29	8.45	27.84	---	---	---	---	---	---
MW-9	05/10/95	36.29	---	---	---	---	---	---	---	---

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
UNOCAL CORPORATION SERVICE STATION
15008 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

ALISTO PROJECT NO. 10-190

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	LAB
MW-10	08/23/93	---	---	---	20000	230	13	3200	140	---
MW-10	11/23/93	---	---	---	18000	300	10	2800	110	---
MW-10	02/24/94	36.04	9.57	26.47	15000	330	19	2000	83	---
MW-10	08/23/94	36.04	11.81	24.23	16000	250	41	1800	74	SAL
MW-10	11/23/94	36.04	11.10	24.94	---	---	---	---	---	---
MW-10	02/03/95	36.04	8.32	27.72	---	---	---	---	---	---
MW-10	05/10/95	36.04	---	---	---	---	---	---	---	---
MW-11	08/23/93	---	---	---	5400	68	ND	230	43	---
MW-11	11/23/93	---	---	---	3400	105	ND	120	43	---
MW-11	02/24/94	35.50	9.20	26.30	4600	170	ND	140	36	---
MW-11	08/23/94	35.50	11.39	24.11	7300	250	13	150	42	SAL
MW-11	11/23/94	35.50	10.67	24.83	---	---	---	---	---	---
MW-11	02/03/95	35.50	8.02	27.48	---	---	---	---	---	---
MW-11	05/10/95	35.50	---	---	---	---	---	---	---	---

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
ug/l	Micrograms per liter
---	Not analyzed/measured
ND	Not detected above reported detection limit
SAL	Sequoia Analytical Laboratory

NOTES:

(a) Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level, relative to benchmark (elevation = 36.88) at the northwest corner of East 14th Street and 150th Avenue.

(b) Groundwater elevations in feet above mean sea level.

E:\010-190\190-3-3B.WQ2

SOURCE:
USGS MAP, HAYWARD AND SAN LEANDRO QUADRANGLE,
7.5 MINUTE SERIES. 1959.
PHOTOREVISED 1980.

N

0 1000' 2000'

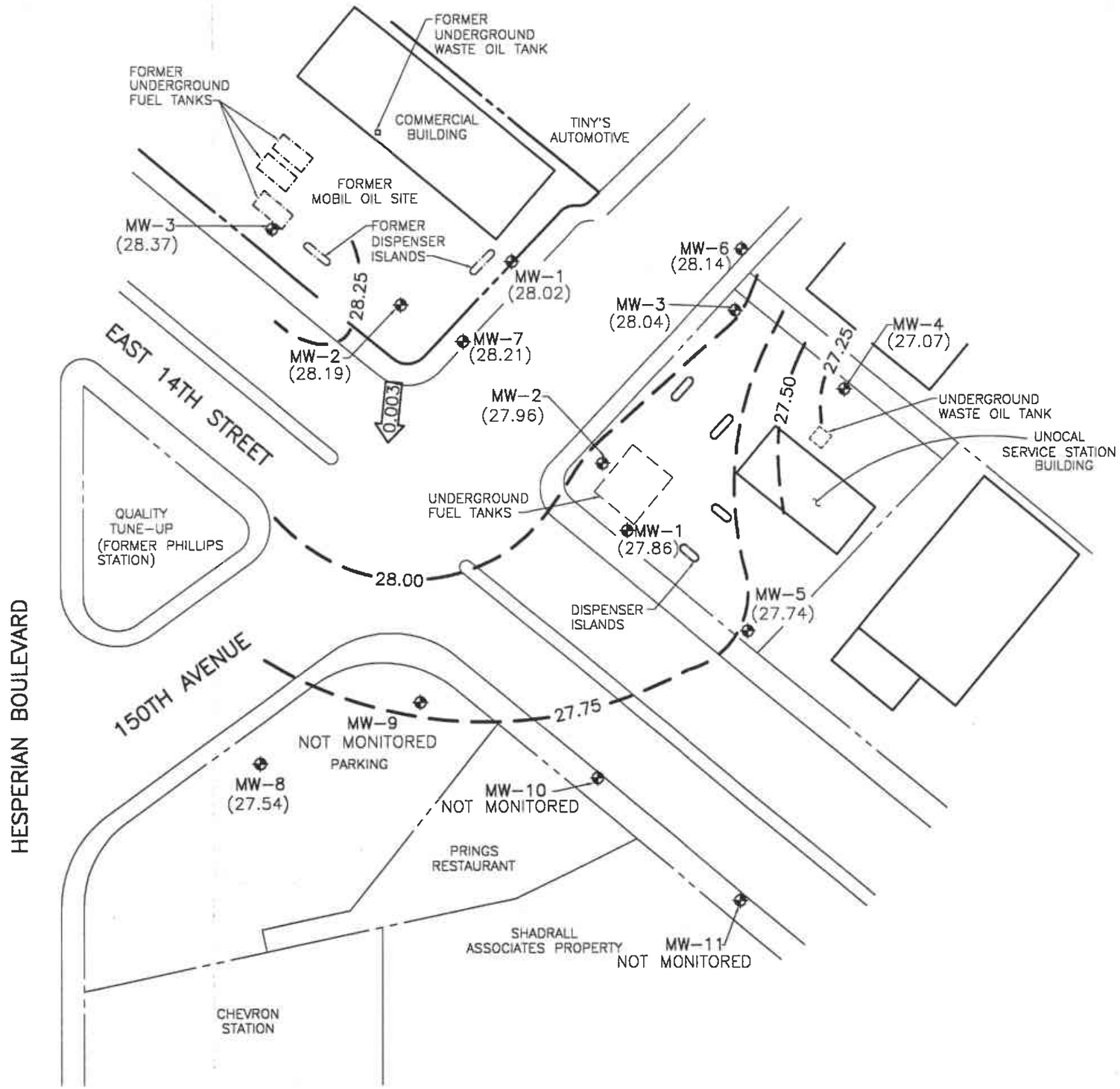
FIGURE 1

SITE VICINITY MAP

FORMER MOBIL OIL CORPORATION
STATION 04–FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 10–190

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA



N

0 50 100

SCALE IN FEET

LEGEND

- GROUNDWATER MONITORING WELL
- (27.74) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 27.60 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.20 FOOT)
- 0.003 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

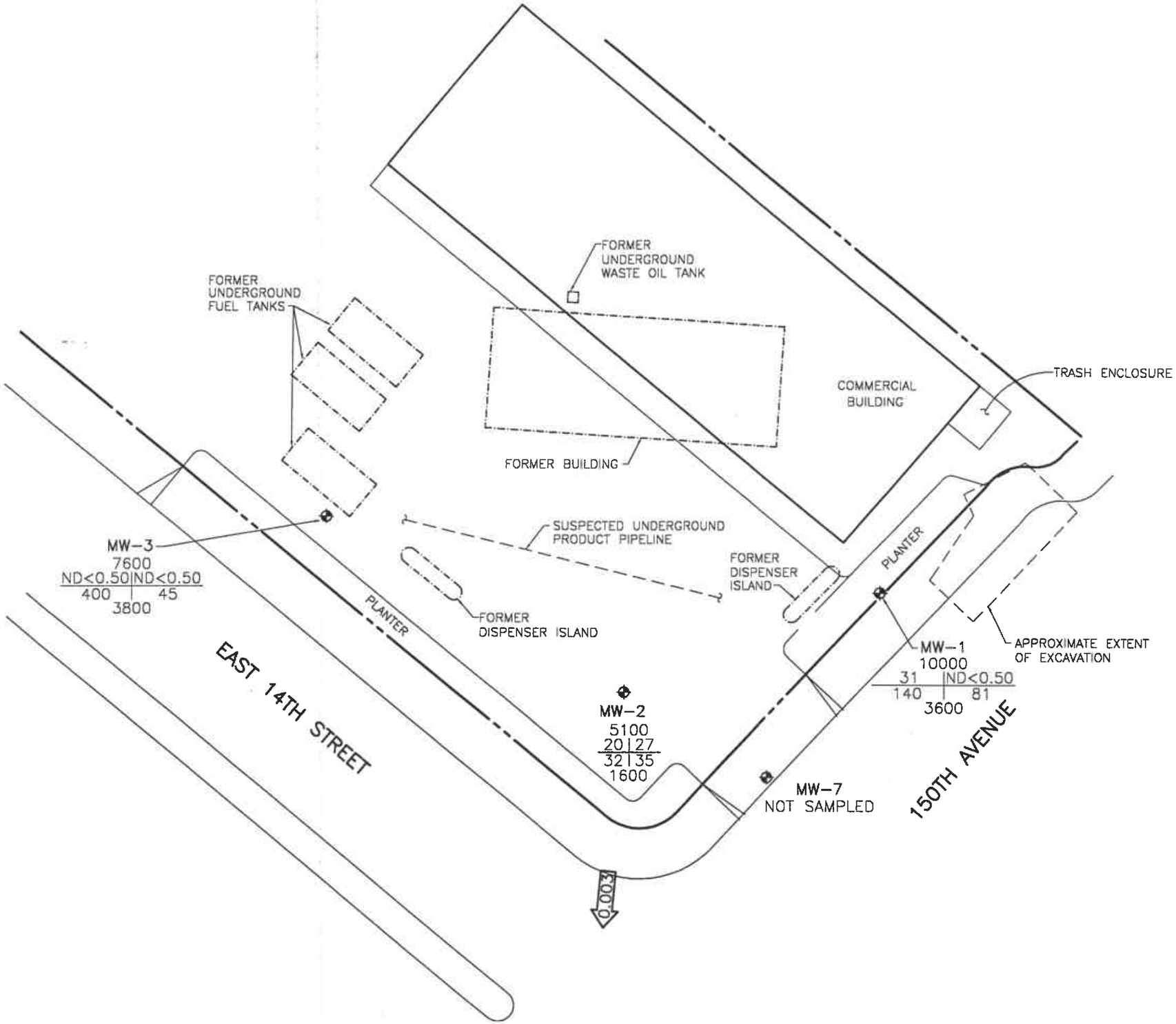
MAY 10, 1995

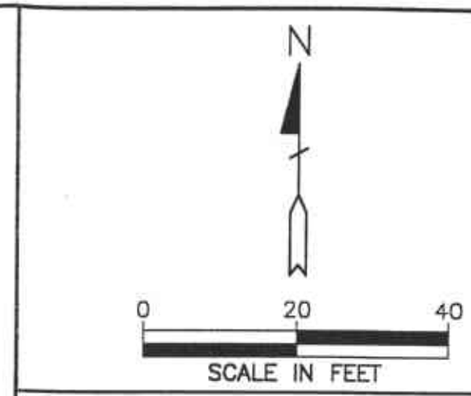
FORMER MOBIL OIL CORPORATION
STATION 04–FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 10–190

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10190D-4.DWG 8-8-95 RKM 1=30





LEGEND

◆	GROUNDWATER MONITORING WELL
TPH–G / B | T / E | X / TPH–D	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
TPH–G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
TPH–D	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
0.003	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

MAY 10, 1995

FORMER MOBIL OIL CORPORATION
STATION 04–FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 10–190

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

APPENDIX A

FIELD PROCEDURES FOR GROUNDWATER MONITORING WELL SAMPLING AND WATER SAMPLING FIELD SURVEY FORMS

FIELD PROCEDURES
FOR
GROUNDWATER MONITORING WELL SAMPLING

Groundwater Level Measurement

Before commencing groundwater sampling, the groundwater level in each well was measured from the marked survey reference point at the top of the well casing. Groundwater in each well was monitored for free product or sheen. The depth to groundwater was measured to an accuracy of 0.01 foot from the top of the PVC well casing using an electronic sounder.

Groundwater Monitoring Well Sampling

To ensure that the groundwater samples were representative of the aquifer, the wells were purged of 3 well casing volumes before sample collection. This purging was accomplished using a clean bailer or pump.

The samples were collected using a disposable bailer and then transferred into laboratory-supplied containers. Care was taken to avoid turbulence when transferring the samples, and all volatile analysis vials were filled so that no air bubbles were trapped. The sampling technician wore nitrile gloves at all times during purging and well sampling. The samples were labeled with the well number, site identification, date and time of sample collection, and sampler's initials, and transported in an iced cooler maintained at 4 degrees Centigrade to a state-certified laboratory following preservation and chain of custody protocol.

ALISTO ENGINEERING GROUP

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WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

☒ Groundwater Sampling

Date: 5/10/95 Project No. 10-A90-03-003
Day: M T (W) Th F Facility No. 04-FGN
Temp. 70°F Address 14994 E 14th St, San Leandro CA
Barometric pres. NA SAMPLER: DC

Well ID	SAMPLE #	WATER / time	Well ID	SAMPLE #	WATER / time	Well ID	SAMPLE	WATER / time
mw-3	—	8.55/1347						
mw-2	—	8.42/1352						
mw-1	—	8.33/1358						

FIELD INSTRUMENT CALIBRATION DATA

PH METER Hydac 4.00 ✓ 7.00 ✓ 10.00 ____ TIME 1425 TEMPERATURE COMPENSATED (Y) N
TURBIDI METER ____ 5.0 NTU STANDARD ____ OTHER ____
CONDUCTIVITY METER Hydac 10,000 ✓ OTHER ____

Well ID: mw-3 — Depth to Water: 8.55 — Diam: 2 — Cap/Lock: OK — Depth to prod.: ∅ — Iridescence: Y (N)

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.
22.57 - 8.55 = 14.02 x .16 = 2.24 x 3 = 6.73

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) ✓ OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
2.5	1436	72.1	6.33	0.47	
5	1441	68.9	6.78	0.55	
7	1446	67.9	6.80	0.50	

O EPA 601 ____
Ø TPH-G/BTEX ~~H~~
Ø TPH Diesel —
Ø TOG 5520 —
Time/Sample 1502

Well ID: mw-2 — Depth to Water: 8.42 — Diam: 2 — Cap/Lock: OK — Depth to prod.: ∅ — Iridescence: Y (N)

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.
24.84 - 8.42 = 16.42 x .16 = 2.62 x 3 = 7.88

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) ✓ OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
3	1507	68.0	7.17	0.46	
6	1511	68.1	7.12	0.43	
8	1515	68.4	7.09	0.43	

O EPA 601 ____
Ø TPH-G/BTEX ~~H~~
Ø TPH Diesel —
Ø TOG 5520 —
Time/ Sample 1518

Well ID: mw-1 — Depth to Water: 8.33 — Diam: 2 — Cap/Lock: OK — Depth to prod.: ∅ — Iridescence: Y (N)

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.
18.70 - 8.33 = 10.37 x .16 = 1.65 x 3 = 4.97

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) ✓ OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
2	1535	68.7	7.38	0.48	
4	1540	67.3	7.26	0.45	
5	1542	67.0	7.21	0.45	

Ø EPA 601 ~~H~~
Ø TPH-G/BTEX ~~H~~
Ø TPH Diesel —
Ø TOG 5520 —
Ø 8240 ~~EPA~~
Time /Sample 1550

APPENDIX B

FIELD PROCEDURES FOR CHAIN OF CUSTODY DOCUMENTATION, LABORATORY REPORTS, AND CHAIN OF CUSTODY RECORDS

FIELD PROCEDURES
FOR
CHAIN OF CUSTODY DOCUMENTATION

The samples collected were handled in accordance with the California Department of Health Services guidelines. The samples were labeled in the field and immediately stored in coolers and preserved with blue ice for transport to a state-certified laboratory for analysis.

A chain of custody record accompanied the samples, and included the site and sample identification, date and time of collection, analysis requested, and the name and signature of the sampling technician. When transferring possession of the samples, the transferee signed and dated the chain of custody record.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to mean sea level. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Allsto Engineering Group	Client Project ID:	Mobil 04-FGN	Sampled: May 10, 1995
1575 Treat Blvd., #201	Sample Matrix:	Water	Received: May 12, 1995
Walnut Creek, CA 94598	Analysis Method:	EPA 5030/8015/8020	Reported: May 23, 1995
Attention: Ken Simas	First Sample #:	505-0830	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 505-0830 MW-1	Sample I.D. 505-0831 MW-2	Sample I.D. 505-0832 MW-3	Sample I.D. 505-0833 QC-1	Sample I.D. 505-0834 QC-2
Purgeable Hydrocarbons	50	10,000	6,100	7,600	10,000	N.D.
Benzene	0.50	31	20	N.D.	32	N.D.
Toluene	0.50	N.D.	27	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	140	32	400	130	N.D.
Total Xylenes	0.50	81	35	45	75	N.D.
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	50	40	50	50	1.0
Date Analyzed:	5/13/95	5/13/95	5/13/95	5/13/96	5/13/95
Instrument Identification:	HP-5	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	74	83	75	71	87

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Sequoia Analytical

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Allsto Engineering Group	Client Project ID:	Mobil 04-FGN	Sampled: May 10, 1995
1575 Treat Blvd., #201	Sample Matrix:	Water	Received: May 12, 1995
Walnut Creek, CA 94598	Analysis Method:	EPA 3510/8015	Reported: May 23, 1995
Attention: Ken Simas	First Sample #:	505-0830	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 505-0830 MW-1	Sample I.D. 505-0831 MW-2	Sample I.D. 505-0832 MW-3
Extractable Hydrocarbons	50	3,600	1,600	3,800
Chromatogram Pattern:		Diesel and Unidentified Hydrocarbons <C15	Diesel and Unidentified Hydrocarbons <C15	Diesel and Unidentified Hydrocarbons <C15

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Extracted:	5/15/95	5/15/95	5/15/95
Date Analyzed:	5/17/95	5/17/95	5/17/95
Instrument Identification:	HP-3B	HP-3B	HP-3B

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Allsto Engineering Group	Client Project ID:	Mobil 04-FGN	Sampled:	May 10, 1995
1575 Treat Blvd., #201	Matrix Descript:	Water	Received:	May 12, 1995
Walnut Creek, CA 94598	Analysis Method:	EPA 413.2 (I.R.)	Extracted:	May 17, 1995
Attention: Ken Simas	First Sample #:	505-0830	Analyzed:	May 18, 1995
			Reported:	May 23, 1995

TOTAL RECOVERABLE OIL & GREASE

Sample Number	Sample Description	Oil & Grease mg/L (ppm)	Detection Limit Multiplication Factor
505-0830	MW-1	7.2	1.0
505-0831	MW-2	3.4	1.0
505-0832	MW-3	3.8	1.0

Detection Limits:	1.0

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

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

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Alisto Engineering Group	Client Project ID:	Mobil 04-FGN	Sampled:	May 10, 1995
1575 Treat Blvd., #201	Sample Descript:	Water, MW-1	Received:	May 12, 1995
Walnut Creek, CA 94598	Analysis Method:	EPA 601	Analyzed:	May 22, 1995
Attention: Ken Simas	Lab Number:	505-0830	Reported:	May 23, 1995

PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethylvinyl ether	2.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	1.0	N.D.
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	1.0	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

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Alisto Engineering Group	Client Project ID:	Mobil 04-FGN	Sampled:	May 10, 1995
1676 Treat Blvd., #201	Sample Descript:	Water, MW-1	Received:	May 12, 1995
Walnut Creek, CA 94598	Analysis Method:	EPA 624		
Attention: Ken Simas	Lab Number:	505-0830	Analyzed:	May 16, 1995
			Reported:	May 23, 1995

PURGEABLES by GC/MS (EPA 624)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acetone	100	N.D.
Benzene	20	N.D.
Bromodichloromethane	20	N.D.
Bromoform	20	N.D.
Bromomethane	20	N.D.
2-Butanone	100	N.D.
Carbon disulfide	20	N.D.
Carbon tetrachloride	20	N.D.
Chlorobenzene	20	N.D.
Chloroethane	20	N.D.
2-Chloroethyl vinyl ether	100	N.D.
Chloroform	20	N.D.
Chloromethane	20	N.D.
Dibromochloromethane	20	N.D.
1,1-Dichloroethane	20	N.D.
1,2-Dichloroethane	20	N.D.
1,1-Dichloroethene	20	N.D.
cis-1,2-Dichloroethene	20	N.D.
trans-1,2-Dichloroethene	20	N.D.
1,2-Dichloropropane	20	N.D.
cis-1,3-Dichloropropene	20	N.D.
trans-1,3-Dichloropropene	20	N.D.
Ethylbenzene	20	140
2-Hexanone	100	N.D.
Methylene chloride	50	N.D.
4-Methyl-2-pentanone	100	N.D.
Styrene	20	N.D.
1,1,2,2-Tetrachloroethane	20	N.D.
Tetrachloroethene	20	N.D.
Toluene	20	N.D.
1,1,1-Trichloroethane	20	N.D.
1,1,2-Trichloroethane	20	N.D.
Trichloroethene	20	N.D.
Trichlorofluoromethane	20	N.D.

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

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Allsto Engineering Group	Client Project ID:	Mobil 04-FGN	Sampled: May 10, 1995
1575 Treat Blvd., #201	Sample Descript:	Water, MW-1	Received: May 12, 1995
Walnut Creek, CA 94598	Analysis Method:	EPA 624	
Attention: Ken Simas	Lab Number:	505-0830	Analyzed: May 16, 1995
			Reported: May 23, 1995

PURGEABLES by GC/MS (EPA 624)

Analyte	Detection Limit µg/L	Sample Results µg/L
Vinyl acetate	20	N.D.
Vinyl chloride	20	N.D.
Total Xylenes	20	83

Surrogates	Control Limit %		% Recovery
1,2-Dichloroethane-d4	50	150	99
Toluene-d8	50	150	110
4-Bromofluorobenzene	50	150	112

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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SENT BY: SEQUOIA ANALYTICAL ; 5-24-95 ; 14:11 ; WALNUT CREEK→ 510 295 1823;# 8

Mobil Oil Consulting Firm: Alisto Engineering
Address: 1575 Treat Blvd #201
City: Walnut Creek State: CA Zip: 94598
Tel: (510) 295 1656 Fax: (510) 295 1823

Station No./Site Address: 04-FGN / 10-190-03-003
Project Contact: Ken Simas
Mobil Oil Engineer: Steve Pao
Sampler(s) (signature):

Sample I.D.	Matrix	Date Sampled	Time	Preservation	Number of Containers	Type of Containers	BTEX - EPA 602/8020	BTEX -TPH EPA M602/8015/8020 (GAS)	TPH EPA Modified 8015 ☐ Gas ☐ Diesel	Oil & Grease - EPA 413.2	TPH - EPA 418.1	EPA 601/8010	EPA 624/8240	EPA 625/8270	Title 22 Metals EPA 6010/7000 ☐ TTLC ☐ STLC	Lead Org./DHS ☐ Lead Total	EDB/DBCP - EPA 504	pH	Bioassay - Title 22 Haz. Waste	Bioassay - Effluent	TPH - Diesel	
MW-1	W	5/12/95	1550	HCl	8	VOA		X		X		X	X				5050830		A-H		X	
MW-2			1518		4																	5050831 A-D
MW-3			1503		4												5050822		A-D			
QC-1			—	HCl	2	VOA											5050823		TB			
QC-2			—	HCl	2												5050824					

CODING (check one)

- Code 1 ☐ Emergency Response
- Code 2 ☐ Site Assessment
- Code 3 ☐ Remediation (Plan Devlpmt)
- Code 4 ☐ Active Remed. (Install./Start-up)
- Code 5 ☐ Active Remed. (O & M)
- Code 6 ☒ Passive Remed/ Monitoring
- Code 7 ☐ Closure
- Code 8 ☐ Construction
- Code 9 ☐ Litigation/Claims Fines

Relinquished by:	Alisto	Date/Time: 5/12/95 11:40
Relinquished by:		Date/Time: 5/12/95
Relinquished by:		Date/Time:

Relinquished by:		Date/Time: 5/12/95 11:40
Relinquished by:		Date/Time:
Relinquished in Lab by:		Date/Time: 5/12/95 1500

Turnaround Time: (check one)
Normal ____ Same day ____
1 day ____ 2 day ____
5 day ____

Sample Integrity:
Intact ____ On Ice ____

Remarks

PDS-DN- 3292

SAN LEANDRO

TABLE 1

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)♦	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)♦
	(Monitored and Sampled on May 10, 1995)						
MW1	27.86	8.57	0	NO	75	0	18.96
MW2	27.96	8.38	0	NO	7.5	0	19.10
MW3	28.04	8.38	0	NO	10	0	22.13
MW4	27.07	9.97	0	NO	7	0	19.62
MW5	27.74	8.20	0	NO	10	0	22.13
MW6	28.16	7.53	0	NO	9	0	20.13
MW7	28.21	7.88	0	NO	9.5	0	21.26
MW8	27.54	9.35	0	NO	7	0	19.08