



ALISTO ENGINEERING GROUP

ENVIRONMENTAL
PROTECTION

95 MAR -8 PM 1:03

March 6, 1995

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

10-190-03-002

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

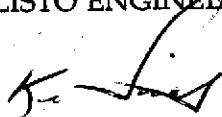
Dear Mr. Seery:

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: Mr. Steve Pao, 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

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-190-03-002

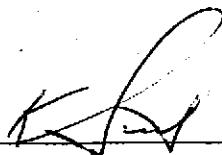
Prepared for:

**Mobil Oil Corporation
3700 W. 190th Street - TPT-2
Torrance, California**


Prepared by:

**Alisto Engineering Group
1777 Oakland Boulevard, Suite 200
Walnut Creek, California**

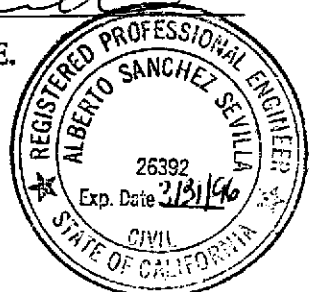
March 6, 1995



**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. 10-190-03-002

March 6, 1995

INTRODUCTION

This report presents the results and findings of the November 23, 1994 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 measured concurrently with the neighboring Unocal Corporation service station, 15008 East 14th Street, San Leandro, California. The results 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 at the former Mobil Oil site are summarized in Table 1. The potentiometric groundwater elevations for groundwater in the vicinity, as interpreted from the results of this coordinated monitoring event, 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.



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 (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TOG (ppb)	KEROSENE (ppb)	VOC (ppb)	PURGEABLE HALOCARBONS	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 (d)	---	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 (d)	ND (d)	SAL
QC-1 (e)	02/24/94	36.35	---	---	11000	---	88	ND<0.5	230	190	---	---	---	---	SAL
MW-1	08/23/94	36.35	12.00	24.35	13000	7100	61	50	280	230	ND<5000	---	ND (d)	ND (d)	SAL
QC-1 (e)	08/23/94	---	---	---	13000	---	58	38	310	230	---	---	---	---	SAL
MW-1	11/23/94	36.35	11.18	25.17	12000	2500	49	ND<0.5	300	190	10000	---	ND (d)	ND (d)	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-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
QC-1 (e)	11/23/94	---	---	---	13000	---	29	15	710	58	---	---	---	---	SAL
QC-2 (f)	02/24/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	SAL
QC-2 (f)	08/23/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	SAL
QC-2 (f)	11/23/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	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
 VOC Volatile organic compounds
 ppb Parts per billion
 --- Not measured/analyzed/applicable
 ND Not detected above reported detection limit
 CTL Curtis & Tompkins, Ltd.
 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 70,000 compounds within the Wiley/NBS spectral data library also detected the following: propylbenzene at 240 ppb, ethylcyclobutane at 98 ppb, 2-methylpentane at 94 ppb, 2-methylbutane at 88 ppb, 2,3-dimethylpentane at 73 ppb, 2-methylhexane at 58 ppb, 3-methylhexane at 57 ppb, and 2,5,6-trimethyloctane at 57 ppb.
- (d) Various detection limits; see laboratory report.
- (e) Blind duplicate.
- (f) Travel blank.

ENV10-190.190-2-2A.WQ2

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 (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	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-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-3	08/23/93	--	--	--	2900	25	ND	50	18	--
MW-3	11/23/93	--	--	--	2300	34	ND	24	5.8	--
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-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-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-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	2.8	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-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	10.89	25.40	--	--	--	--	--	--
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-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	2900	28	32	ND	ND	SAL
MW-9	11/23/94	36.29	11.31	24.98	--	--	--	--	--	--

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 UNOCAL CORPORATION SERVICE STATION
 16008 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 (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	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-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	—	—	—	—	—	—

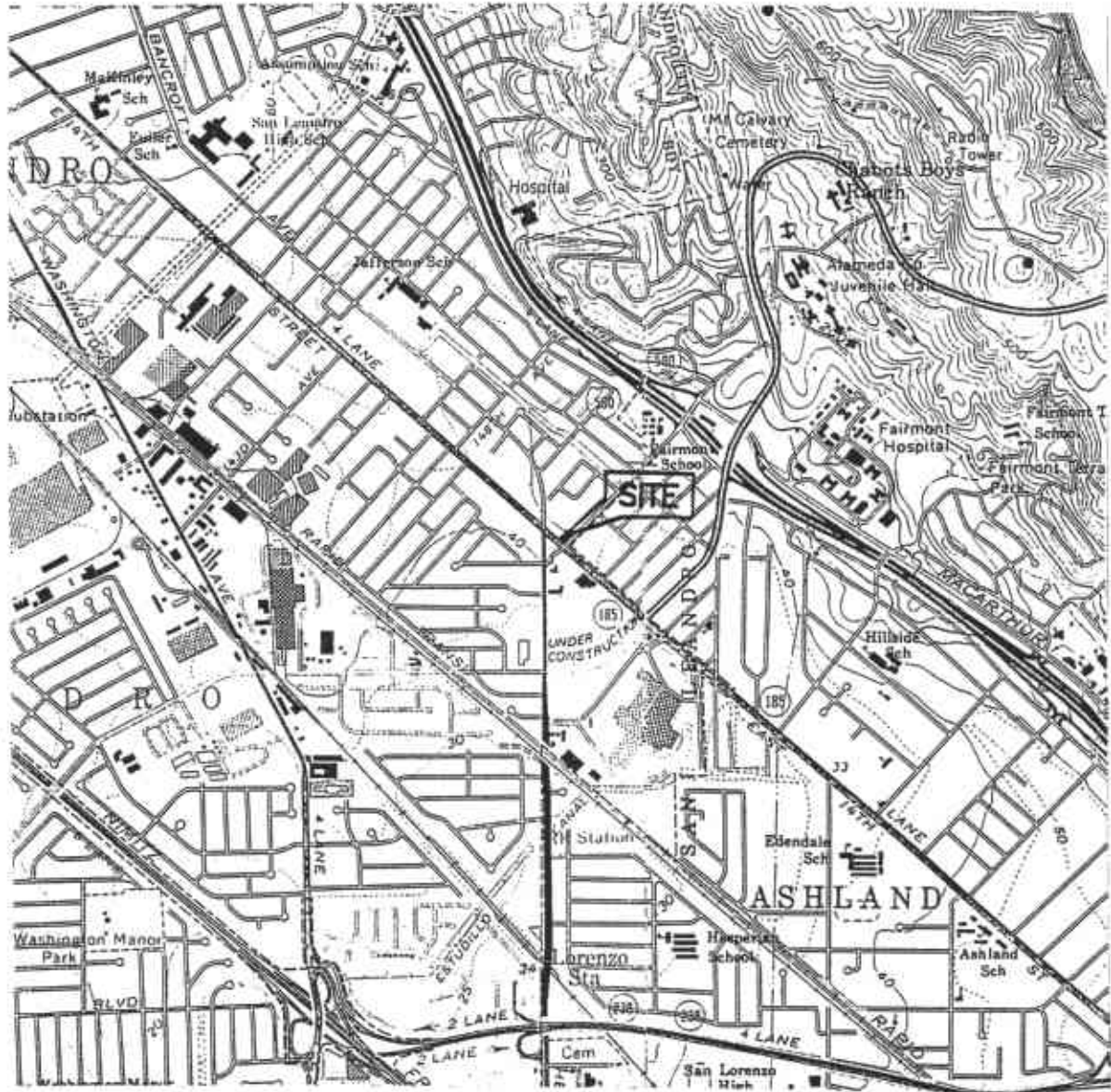
ABBREVIATIONS:

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
VOC	Volatile organic compounds
ppb	Parts per billion
—	Not analyzed/measured
ND	Not detected above reported detection limits
SAL	Sequola 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.

EX10-190,190-2-2B.WG2



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

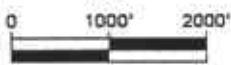


FIGURE 1

SITE VICINITY MAP

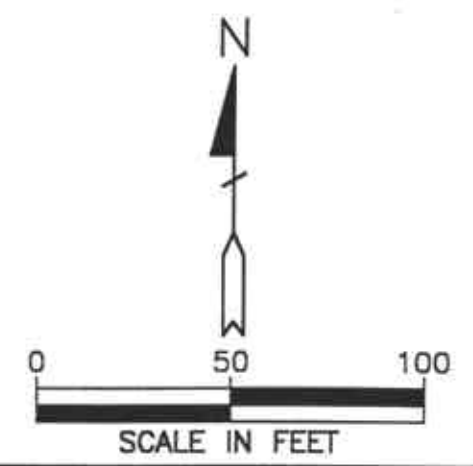
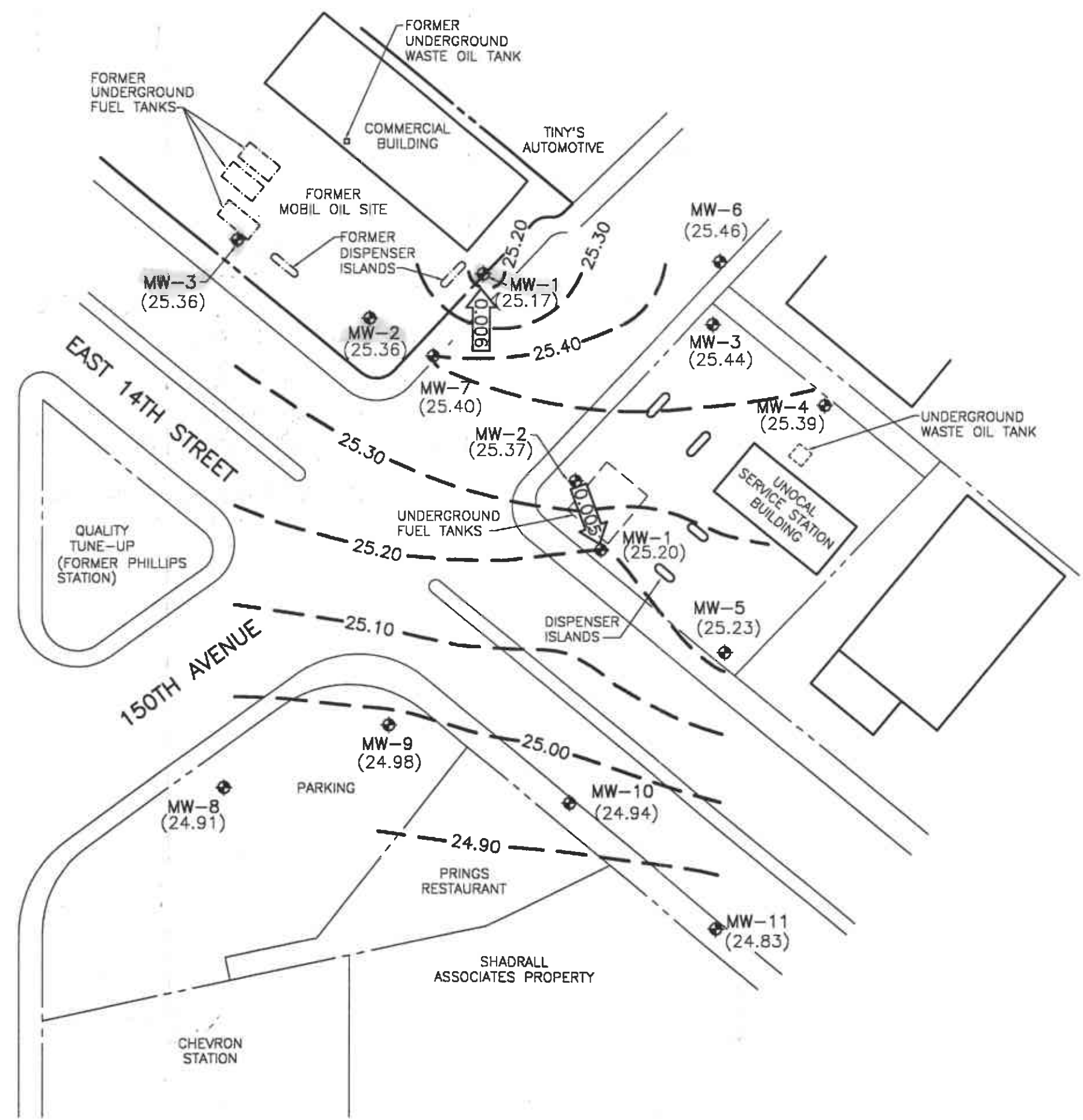
FORMER MOBIL OIL CORPORATION
 STATION 04-FGN
 14994 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA

PROJECT NO. 10-190



ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA

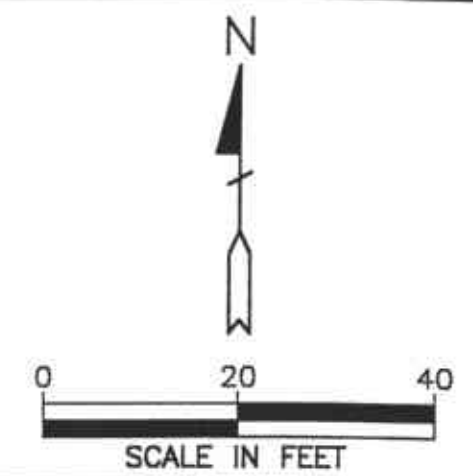
HESPERIAN BOULEVARD



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - (24.83) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 24.90 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL=0.10 FOOT)
 - ← 0.006 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
NOVEMBER 23, 1994
 FORMER MOBIL OIL CORPORATION
 STATION 04-FGN
 14994 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA
 PROJECT NO. 10-190

101900-LONG 3-10-95 RW 1-20

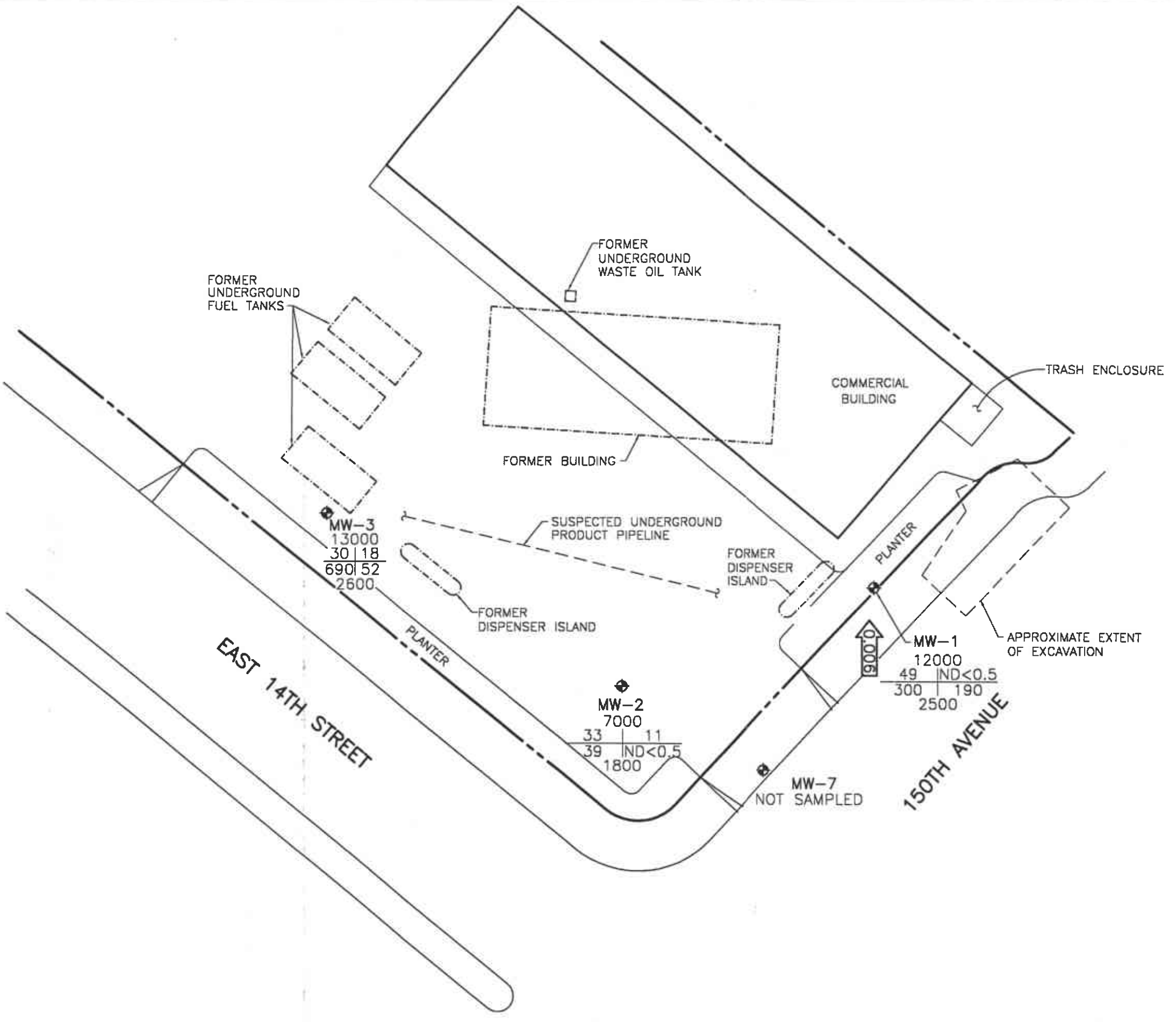


LEGEND

- ◆ GROUNDWATER MONITORING WELL
- TPH-G
B | T
E | X
TPH-D
CONCENTRATION OF CONSTITUENTS
IN PARTS PER BILLION
- 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
- ←0.006 CALCULATED GROUNDWATER
GRADIENT DIRECTION AND
MAGNITUDE IN FOOT PER FOOT

FIGURE 3
CONCENTRATIONS OF PETROLEUM
HYDROCARBONS IN GROUNDWATER

NOVEMBER 23, 1994
FORMER MOBIL OIL CORPORATION
STATION 04-FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA
PROJECT NO. 10-190



APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

Groundwater Level Monitoring

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

Groundwater Sampling

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

The samples are collected using a disposable bailer, and then transferred into laboratory-supplied containers. Care is taken to avoid turbulence when transferring the water samples, and all volatile analysis vials are filled so that no air bubbles are trapped. The sampling technician wears nitrile gloves at all times during purging and well sampling. The samples are 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 GROUNDWATER MONITORING

Client: Mobil
 Alisto Project No: 10-190-02-002
 Service Station No: 3292

Date: 11/23/94
 Field Personnel: Nick Perrow
 Site Address: 15008 E. 14th St.

FIELD ACTIVITY:

- Groundwater Monitoring
- Groundwater Sampling
- Well Development

QUALITY CONTROL SAMPLES:

- QC-1 Sample Duplicate (Well ID)
- QC-2 Trip Blank
- QC-3 Rinsate Blank

Well ID	Well Diam	Order Measured/ Sampled	Total Depth	Depth to Water	Depth to Product	Product Thick-ness	Comments
MW-1			18.94	11.17			
MW-2			19.10	10.97			
MW-3			22.13	10.98			
MW-4			19.60	11.65			
MW-5			22.13	10.71			
MW-6			20.13	10.21			
MW-7			21.19	10.69			
MW-8			19.08	11.98			
MW-9			19.08	11.31			
MW-10			19.85	11.10			
AW-11			18.97	10.67			

Notes:

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING GROUP

1777 OAKLAND BLVD, STE 200

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

Groundwater Sampling

Barometric pres. NA

Date: 11/23/94 Project No. 10-190-02-002-

Day: M T W Th F Facility No. 04-FON

Temp. 65°F Address E 14th St, San Leandro, CA

SAMPLER: DC

Well ID	SAMPLE #	WATER	Time	Well ID	SAMPLE #	WATER	Time	Well ID	SAMPLE	WATER / Time
MW-2	-	11.25	1010							
MW-1	-	11.18	1012							
MW-3	-	11.56	1015							

FIELD INSTRUMENT CALIBRATION DATA

PH METER Hydax 4.00 7.00 10.00 TIME 1030 TEMPERATURE COMPENSATED N

TURBIDI METER 5.0 NTU STANDARD OTHER _____

CONDUCTIVITY METER Hydax 10,000 OTHER _____

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Hydroconca	Gal.	Time	Temp °F	pH	E.C.	D.O.	Other
MW-2	11.25	2"	OK	Ø	Y <input checked="" type="checkbox"/> N	2	1107	70.5	6.87	1.04		<input type="checkbox"/> EPA 801
Total Depth - Water Level = x Well Vol. Factor = x/vol. to Purge = Purge Vol.						4	1111	69.1	6.70	0.82		<input checked="" type="checkbox"/> TPH/G/BTEX HCL
$24.84 - 11.25 = 13.59 \times .16 = 2.17 \times 3 = 6.52$						6.75	1115	69.2	6.45	0.77		<input checked="" type="checkbox"/> TPH Dissol
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Dip. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Dip. Baller(s) <input type="checkbox"/> Sys Port												<input checked="" type="checkbox"/> TOG 6620
Comments: <u>Tiny globules on purge H2O surface</u>												Time/Sample <u>1120</u>
MW-1	11.18	2"	OK	Ø	Y <input checked="" type="checkbox"/> N	1.5	1140	68.8	6.88	0.64		<input type="checkbox"/> EPA 801
Total Depth - Water Level = x Well Vol. Factor = x/vol. to Purge = Purge Vol.						3	1144	69.0	6.79	0.60		<input checked="" type="checkbox"/> TPH/G/BTEX HCL
$18.70 - 11.18 = 7.52 \times .16 = 1.20 \times 3 = 3.61$						3.75	1145	69.1	6.75	0.60		<input checked="" type="checkbox"/> TPH Dissol
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Dip. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Dip. Baller(s) <input type="checkbox"/> Sys Port												<input checked="" type="checkbox"/> TOG 6620
Comments: <u>Tiny globules on purge H2O surface</u>												Time/Sample <u>1150</u>
MW-3	11.56	2"	OK	Ø	Y <input checked="" type="checkbox"/> N	2	1214	70.3	6.86	0.58		<input type="checkbox"/> EPA 801
Total Depth - Water Level = x Well Vol. Factor = x/vol. to Purge = Purge Vol.						4	1218	71.5	6.66	0.57		<input checked="" type="checkbox"/> TPH/G/BTEX HCL
$22.57 - 11.56 = 11.01 \times .16 = 1.76 \times 3 = 5.29$						5.5	1220	71.7	6.57	0.56		<input checked="" type="checkbox"/> TPH Dissol
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Dip. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Dip. Baller(s) <input type="checkbox"/> Sys Port												<input checked="" type="checkbox"/> TOG 6620
Comments: <u>QC-1 from this well</u>												Time/Sample <u>1223</u>

Tiny globules on purge H2O surface PAGE 1 of 1

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

FIELD PROCEDURES FOR CHAIN OF CUSTODY DOCUMENTATION

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

The 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.



Alisto Engineering Group	Client Project ID: Mobil 04-FGN/10-190-02-002	Sampled: Nov 23, 1994
1777 Oakland Blvd., Ste. 200	Sample Matrix: Water	Received: Nov 23, 1994
Walnut Creek, CA 94596	Analysis Method: EPA 5030/8015/8020	Reported: Dec 2, 1994
Attention: Bill Howell	First Sample #: 411-1299	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 411-1299 MW-1	Sample I.D. 411-1300 MW-2	Sample I.D. 411-1301 MW-3	Sample I.D. 411-1302 QC-1	Sample I.D. 411-1303 QC-2
Purgeable Hydrocarbons	50	12,000	7,000	13,000	13,000	N.D.
Benzene	0.50	49	33	30	29	N.D.
Toluene	0.50	N.D.	11	18	15	N.D.
Ethyl Benzene	0.50	300	39	690	710	N.D.
Total Xylenes	0.50	190	N.D.	52	58	N.D.
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	--

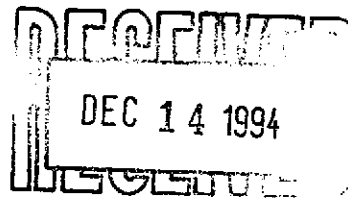
Quality Control Data

Report Limit Multiplication Factor:	40	20	20	20	1.0
Date Analyzed:	11/28/94	11/30/94	11/30/94	11/30/94	11/30/94
Instrument Identification:	HP-5	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	72	88	78	79	86

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

Karen L. Enstrom
 Project Manager





Alisto Engineering Group 1777 Oakland Blvd., Ste. 200 Walnut Creek, CA 94596 Attention: Bill Howell	Client Project ID: Mobil 04-FGN/10-190-02-002 Sample Matrix: Water Analysis Method: EPA 3510/3520/8015 First Sample #: 411-1299	Sampled: Nov 23, 1994 Received: Nov 23, 1994 Reported: Dec 2, 1994
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TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 411-1299 MW-1	Sample I.D. 411-1300 MW-2	Sample I.D. 411-1301 MW-3
Extractable Hydrocarbons	50	2,500	1,800	2,600
Chromatogram Pattern:		Unidentified Hydrocarbons <C16	Unidentified Hydrocarbons <C16	Unidentified Hydrocarbons <C16

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Extracted:	11/30/94	11/30/94	11/30/94
Date Analyzed:	12/1/94	12/1/94	12/1/94
Instrument Identification:	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, #1271


Karen L. Enstrom
Project Manager





Alisto Engineering Group	Client Project ID: Mobil 04-FGN/10-190-02-002	Sampled: Nov 23, 1994
1777 Oakland Blvd., Ste. 200	Matrix Descript: Water	Received: Nov 23, 1994
Walnut Creek, CA 94596	Analysis Method: EPA 413.2 (I.R.)	Extracted: Dec 2, 1994
Attention: Bill Howell	First Sample #: 411-1299	Analyzed: Dec 2, 1994
		Reported: Dec 2, 1994

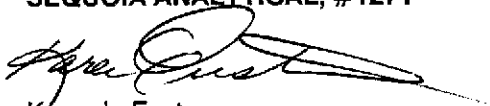
TOTAL RECOVERABLE OIL & GREASE

Sample Number	Sample Description	Oil & Grease mg/L (ppm)	Detection Limit Multiplication Factor
411-1299	MW-1	10	1.0
411-1300	MW-2	7.3	1.0
411-1301	MW-3	8.5	1.0

Detection Limits:	1.0
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Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271


Karen L. Enstrom
Project Manager





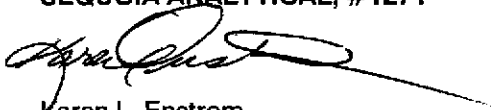
Alisto Engineering Group 1777 Oakland Blvd., Ste. 200 Walnut Creek, CA 94596 Attention: Bill Howell	Client Project ID: Mobil 04-FGN/10-190-02-002 Sample Descript: Water, MW-1 Analysis Method: EPA 5030/8010 Lab Number: 411-1299	Sampled: Nov 23, 1994 Received: Nov 23, 1994 Analyzed: Nov 29, 1994 Reported: Dec 2, 1994
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HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	N.D.
Dibromochloromethane.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
cis-1,2-Dichloroethene.....	5.0	N.D.
trans-1,2-Dichloroethene.....	5.0	N.D.
1,2-Dichloropropane.....	5.0	N.D.
cis-1,3-Dichloropropene.....	5.0	N.D.
trans-1,3-Dichloropropene.....	5.0	N.D.
Methylene chloride.....	50	N.D.
1,1,2,2-Tetrachloroethane.....	5.0	N.D.
Tetrachloroethene.....	5.0	N.D.
1,1,1-Trichloroethane.....	5.0	N.D.
1,1,2-Trichloroethane.....	5.0	N.D.
Trichloroethene.....	5.0	N.D.
Trichlorofluoromethane.....	5.0	N.D.
Vinyl chloride.....	10	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


 Karen L. Enstrom
 Project Manager





Alisto Engineering Group
1777 Oakland Blvd., Ste. 200
Walnut Creek, CA 94596
Attention: Bill Howell

Client Project ID: Mobil 04-FGN/10-190-02-002
Sample Descript: Water, MW-1
Analysis Method: EPA 8240
Lab Number: 411-1299

Sampled: Nov 23, 1994
Received: Nov 23, 1994
Analyzed: Dec 1, 1994
Reported: Dec 2, 1994

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acetone.....	50	N.D.
Benzene.....	10	N.D.
Bromodichloromethane.....	10	N.D.
Bromoform.....	10	N.D.
Bromomethane.....	10	N.D.
2-Butanone.....	50	N.D.
Carbon disulfide.....	10	N.D.
Carbon tetrachloride.....	10	N.D.
Chlorobenzene.....	10	N.D.
Chloroethane.....	10	N.D.
2-Chloroethyl vinyl ether.....	50	N.D.
Chloroform.....	10	N.D.
Chloromethane.....	10	N.D.
Dibromochloromethane.....	10	N.D.
1,1-Dichloroethane.....	10	N.D.
1,2-Dichloroethane.....	10	N.D.
1,1-Dichloroethene.....	10	N.D.
cis-1,2-Dichloroethene.....	10	N.D.
trans-1,2-Dichloroethene.....	10	N.D.
1,2-Dichloropropane.....	10	N.D.
cis-1,3-Dichloropropene.....	10	N.D.
trans-1,3-Dichloropropene.....	10	N.D.
Ethylbenzene.....	10	340
2-Hexanone.....	50	N.D.
Methylene chloride.....	25	N.D.
4-Methyl-2-pentanone.....	50	N.D.
Styrene.....	10	N.D.
1,1,2,2-Tetrachloroethane.....	10	N.D.
Tetrachloroethene.....	10	N.D.
Toluene.....	10	N.D.
1,1,1-Trichloroethane.....	10	N.D.
1,1,2-Trichloroethane.....	10	N.D.
Trichloroethene.....	10	N.D.
Trichlorofluoromethane.....	10	N.D.

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





Alisto Engineering Group 1777 Oakland Blvd., Ste. 200 Walnut Creek, CA 94596 Attention: Bill Howell	Client Project ID: Mobil 04-FGN/10-190-02-002 Sample Descript: Water, MW-1 Analysis Method: EPA 8240 Lab Number: 411-1299	Sampled: Nov 23, 1994 Received: Nov 23, 1994 Analyzed: Dec 1, 1994 Reported: Dec 2, 1994
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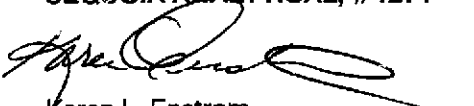
VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/L	Sample Results µg/kg
Vinyl acetate.....	10	N.D.
Vinyl chloride.....	10	N.D.
Total Xylenes	10	230

Surrogates	Control Limit %	% Recovery
1,2-Dichloroethane-d4.....	50	150..... 91
Toluene-d8.....	50	150..... 103
4-Bromofluorobenzene.....	50	150..... 114

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


 Karen L. Enstrom
 Project Manager





Alisto Engineering Group Client Project ID: Mobil 04-FGN/10-190-02-002
 1777 Oakland Blvd., Ste. 200 Matrix: Liquid
 Walnut Creek, CA 94596
 Attention: Bill Howell QC Sample Group: 4111299-303 Reported: Dec 2, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Oil & Grease
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 Mod.	EPA 413.2
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	K.V.S.	S. Le

MS/MSD Batch#:	4111303	4111303	4111303	4111303	BLK113094	BLK120294
Date Prepared:	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	12/2/94
Date Analyzed:	11/30/94	11/30/94	11/30/94	11/30/94	12/1/94	12/2/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3A	Miran-IFF
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	3.0 mg/L
Matrix Spike % Recovery:	75	85	90	95	74	86
Matrix Spike Duplicate % Recovery:	80	90	90	95	71	88
Relative % Difference:	6.5	5.6	0.0	0.0	4.1	2.3

LCS Batch#:	2LCS113094	2LCS113094	2LCS113094	2LCS113094	BLK113094	LCS120294
Date Prepared:	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	12/2/94
Date Analyzed:	11/30/94	11/30/94	11/30/94	11/30/94	12/1/94	12/2/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3A	Miran-IFF
LCS % Recovery:	88	98	102	104	74	86

% Recovery Control Limits:	71-133	72-128	72-130	71-120	28-122	70-130
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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, #1271

Karen L. Enstrom
 Karen L. Enstrom
 Project Manager





Alisto Engineering Group
 1777 Oakland Blvd., Ste. 200
 Walnut Creek, CA 94596
 Attention: Bill Howell

Client Project ID: Mobil 04-FGN/10-190-02-002
 Matrix: Liquid

QC Sample Group: 411-1299

Reported: Dec 2, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
Method:	EPA 8240	EPA 8240	EPA 8240	EPA 8240	EPA 8240
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen	M. Nguyen	M. Nguyen

MS/MSD	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
Batch#:	4111455	4111455	4111455	4111455	4111455
Date Prepared:	12/1/94	12/1/94	12/1/94	12/1/94	12/1/94
Date Analyzed:	12/1/94	12/1/94	12/1/94	12/1/94	12/1/94
Instrument I.D.#:	GC/MS 2	GC/MS 2	GC/MS 2	GC/MS 2	GC/MS 2
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L	50 µg/L	50 µg/L
Matrix Spike % Recovery:	104	108	112	112	108
Matrix Spike Duplicate % Recovery:	92	96	100	100	96
Relative % Difference:	12	12	11	11	12

LCS Batch#:	LCS120194	LCS120194	LCS120194	LCS120194	LCS120194
Date Prepared:	12/1/94	12/1/94	12/1/94	12/1/94	12/1/94
Date Analyzed:	12/1/94	12/1/94	12/1/94	12/1/94	12/1/94
Instrument I.D.#:	GC/MS 2	GC/MS 2	GC/MS 2	GC/MS 2	GC/MS 2
LCS % Recovery:	104	108	112	104	104

% Recovery Control Limits:	DL-234	71-157	37-151	47-150	37-160
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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, #1271

Karen L. Enstrom
 Project Manager





Alisto Engineering Group
1777 Oakland Blvd., Ste. 200
Walnut Creek, CA 94596
Attention: Bill Howell

Client Project ID: Mobil 04-FGN/10-190-02-002
Matrix: Liquid

QC Sample Group: 411-1299

Reported: Dec 2, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	K. Nill	K. Nill	K. Nill

MS/MSD			
Batch#:	4111049	4111049	4111049
Date Prepared:	11/28/94	11/28/94	11/28/94
Date Analyzed:	11/28/94	11/28/94	11/28/94
Instrument I.D.#:	HP5890/7	HP5890/7	HP5890/7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
Matrix Spike			
% Recovery:	127	131	79
Matrix Spike Duplicate %			
Recovery:	114	113	95
Relative %			
Difference:	11	15	18

LCS Batch#:	LCS112994	LCS112994	LCS112994
Date Prepared:	11/29/94	11/29/94	11/29/94
Date Analyzed:	11/29/94	11/29/94	11/29/94
Instrument I.D.#:	HP5890/7	HP5890/7	HP5890/7
LCS %			
Recovery:	96	93	76

% Recovery			
Control Limits:	28-167	35-146	38-150

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, #1271


Karen L. Enstrom
Project Manager



Mobil Chain of Custody



**SEQUOIA
ANALYTICAL**

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

Consulting Firm Name: <u>Alista Engineering</u>		Site SS #: <u>04-FGN</u>	Phase of Work:
Address: <u>1777 Oakland Blvd, Ste 200</u>		Mobil Site Address: <u>14994 E 14th St</u>	<input type="checkbox"/> A. Emrg. Response
City: <u>Walnut Creek</u> State: <u>CA</u> Zip Code: <u>94596</u>	Mobil Engineer: <u>Steve Pao</u>	San Leandro, CA	<input type="checkbox"/> B. Site Assessment
Telephone: <u>(510) 255-1650</u> FAX #: <u>(510) 255-1723</u>	Consultant Project #: <u>10-190-02-002</u>		<input type="checkbox"/> C. Remediation
Project Contact: <u>Bill Howell</u> Sampled by: <u>Daniel Wusak</u>	Sequoia's Work Order Release #:		<input checked="" type="checkbox"/> D. Monitoring
			<input type="checkbox"/> 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 #	Analyses Requested							Comments
					TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 4-18.1	Oil & Grease EPA 4-13.2	EPA 3010 14-VOC	EPA 3020 6-VOC		
1. MW-1	11/23/1150	H ₂ O	11	4111299	X	X	X	X	X			2009 passed Vol pulled for 2010 in a
2. MW-2	1/11/20		5	4111300								
3. MW-3	1/22/23		5	4111301								
4. QC-1	1-		3	4111302								
5. QC-2	1-		2	4111303								
6.												
7.												
8.												
9.												
10.												

Relinquished By: <u>Daniel Wusak</u>	Date: <u>11/23</u>	Time: <u>1:55pm</u>	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: <u>Melissa Crews</u>	Date: <u>11/23/14</u>	Time: <u>1:55pm</u>