

# Mobil Oil Corporation

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

January 19, 1993

Ms. Juliet Shin  
Alameda County Department of Environmental Health  
Hazardous Materials Division  
80 Swan Way, Room 200  
Oakland, California 94621

**FORMER MOBIL SS# 10-L1X**  
**15884 HESPERIAN BLVD.**  
**SAN LORENZO, CALIFORNIA**

Dear Ms. Shin,

Enclosed is the Quarterly Monitoring Report and Quarterly Update Report for the above-referenced location, as prepared by our consultant, Hydro-Environmental Technologies, Inc. (HETI).

Groundwater samples were collected from the four existing groundwater monitoring wells on November 27, 1992. Detectable TPHg and BTEX concentrations were present in the samples collected from wells MW-2 and MW-7 (3.2- and 1.6-ppb benzene, respectively). Samples collected from wells MW-5 and MW-6 were ND for TPHg and BTEX.

I would like to thank you for your assistance in helping us obtain access to drill and install MWs in Hesperian Blvd. to assess the downgradient extent of groundwater contamination at this site. You will be advised of our schedule for installing these two wells when encroachment permits are finalized and drilling dates are scheduled.

Please review the enclosed reports. Should you have any comments or require additional information, please contact me at (818) 953-2649.

Sincerely,



Randy Begier  
Environmental Project  
Engineer

cc: Rich Hiett, CRWQCB - S.F. Bay Region (w/enclosure)  
G.G. Smith, Mobil

**QUARTERLY MONITORING REPORT**

**Sampling Date: November 27, 1992**

**Former Mobil S/S No. 10-L1X  
15884 Hesperian Blvd.  
San Lorenzo, California**

Prepared for:

**MOBIL OIL CORPORATION  
3800 West Alameda Avenue, Suite 2000  
Burbank, CA 91505**

Prepared by:

**HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.**

**2363 Mariner Square Drive, Suite 243  
Alameda, California 94501  
HETI Job No. 8-019**

**December 16, 1992**

### CERTIFICATION

This report was prepared under the supervision of a registered professional engineer. All statements, conclusions and recommendations are based solely upon field observations and analytical analyses performed by a state-certified laboratory related to the work performed by Hydro-Environmental Technologies, Inc.

It is possible that variations in the soil or ground water conditions exist beyond the points explored in this investigation. Also, site conditions are subject to change at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

The service performed by Hydro-Environmental Technologies, Inc. has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

Hydro-Environmental Technologies, Inc. includes in this report chemical analytical data from a state-certified laboratory. These analyses are performed according to procedures suggested by the U.S. EPA and the State of California. Hydro-Environmental Technologies, Inc. is not responsible for laboratory errors in procedure or result reporting.

Please note that contamination of soil and ground water must be reported to the appropriate agencies in a timely manner.

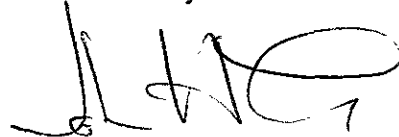
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

Prepared by:

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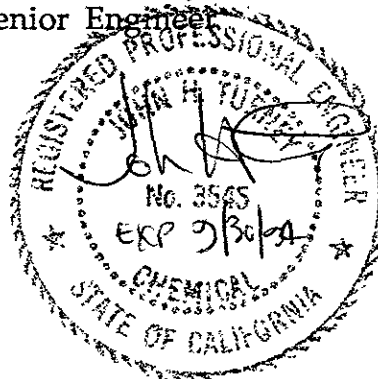
Henry A. Hurkmans  
Staff Geologist

Reviewed by:



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John H. Turney, P.E.  
Senior Engineer



## 1.0 Introduction

The purpose of this report is to present the results of Hydro-Environmental Technologies, Inc.'s (HETI's) quarterly water sampling for the former Mobil Service Station No. 10-L1X previously located at 15884 Hesperian Boulevard in San Lorenzo, California. Well sampling was performed on November 27, 1992.

Work performed at the site by HETI included: (1) well gauging, (2) well purging, and (3) collection of ground water samples from each of the wells. All documentation related to the field work is appended to this report.

Ground water samples collected from the wells were analyzed for total low to medium boiling point petroleum hydrocarbons (TPHg), and benzene, toluene, ethylbenzene and total xylenes (BTEX), using EPA Methods 8015/8020 (DHS modified).

## 2.0 Background

The site is located at 15884 Hesperian Blvd., in San Lorenzo, California (Figure 1), and is currently paved over and used as a parking lot for a shopping mall (Figure 2). Kaprealian Engineering, Inc. (KEI) installed four two-inch diameter monitoring wells, designated MW-1 through MW-4, at the site in July 1986. In preparation to abandon the site, the underground storage tanks were removed and the tank pit was overexcavated in December 1987.

Mobil retained HETI in October 1991 to continue with further subsurface investigation. After HETI's initial site inspection to locate the wells, the following conditions were observed. Monitoring well MW-2 was found in good condition, the casing to MW-3 was broken off and debris had filled in the well, and wells MW-1 and MW-4 could not be located and their existence/condition is unknown.

HETI installed three monitoring wells on-site, designated MW-5, MW-6 and MW-7, and properly abandoned monitoring well MW-3 in January 1992. Monitoring well locations are shown on the Site Plan (Figure 3). Results of that phase of investigation and detailed project history are presented in HETI's Phase I Report dated May 7, 1992.

### 3.0 Field Activities

HETI collected water samples from monitoring wells MW-2, MW-5, MW-6 and MW-7 on November 27, 1992. Prior to sampling the depth to water in each of the wells was gauged to the nearest hundredth of a foot using an interface probe. No separate-phase petroleum was detected in any of the wells. Prior to sampling all monitoring wells were purged dry or until three well volumes had been removed. Gauging and purging data is included in Appendix A.

Following recovery of water levels in the wells to at least 70 percent of their static water level, water samples were collected from each well with a dedicated bailer. Each sample was transferred to sample containers appropriate for the analysis to be performed. Sample containers were labeled and placed in a chilled cooler. A chain of custody was prepared and accompanied the samples to the laboratory; a copy is included in Appendix B. Water sample analyses were performed by Sequoia Analytical, a State DHS-certified laboratory located in Redwood City, California.

### 4.0 Results of Monitoring

#### 4.1 Ground Water Data

The depth to ground water in each of the wells was approximately 15 feet below grade, according to the well gauging conducted for this monitoring. The depth to water data was combined with wellhead elevation data previously collected by HETI to calculate ground water elevations. These elevations were used to produce the ground water contours shown on Figure 4. Ground water flows towards the southwest at a gradient of 0.0027 ft/ft (0.27%). Ground water levels in the wells have decreased approximately 0.5 foot since the last quarter. Ground water flow direction and gradient calculated during this quarter are generally consistent with those calculated previously.

#### 4.2 Laboratory Analytical Results

TPHg and BTEX compounds were detected in the water sample collected from well MW-7 at concentrations of 82 and 1.6/ND/4.3/3.6 parts per billion (ppb), respectively. TPHg and BTEX compounds were detected in the water sample collected from well MW-2 at concentrations of 56 and 3.2/ND/0.87/2.1 ppb, respectively. TPHg and BTEX compounds were not detected in concentrations exceeding the method detection limit in water samples collected from wells MW-5 and MW-6.

Water sample analytical results are summarized in Table 1 and presented graphically on the TPHg and BTEX Concentration Map (Figure 5). Cumulative water sample analytical results are summarized in Table 2. A copy of the laboratory report is included in Appendix B.

### **5.0 Status of Investigative Activities**

HETI is obtaining an encroachment permit from the Alameda County Department of Public Works to allow the installation of two off-site wells in Hesperian Boulevard. These wells will be used to assess the downgradient extent of the dissolved hydrocarbon plume. Details of the next phase of investigation can be found in HETI's proposed workplan dated May 11, 1992.

# TABLES



**Table 1**  
**GROUND WATER SAMPLES**  
**SUMMARY OF ANALYTICAL RESULTS**  
**Former Mobil Station No. 10-L1X**  
**15884 Hesperian Boulevard**  
**San Lorenzo, California**

Sampling Date: November 27, 1992

MW No.	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
MW-2	56	3.2	ND	0.87	2.1
MW-5	ND	ND	ND	ND	ND
MW-6	ND	ND	ND	ND	ND
MW-7	82	1.6	ND	4.3	3.6
MDL	50	0.50	0.50	0.50	0.50

TPHg = Total low to medium boiling point petroleum hydrocarbons by EPA Method 8015  
(DHS modified)

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

BTEX analyzed by EPA Method 8020

ND = Not detected at concentrations exceeding the method detection limit

MDL = Method detection limits

**Table 2**  
**GROUND WATER SAMPLES**  
**CUMULATIVE ANALYTICAL RESULTS**  
**Mobil Service Station No. 10-L1X**  
**15884 Hesperian Boulevard**  
**San Lorenzo, California**

MW No.	Date	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
MW-2	2/12/92	190	4.4	ND<0.30	4.7	3.8
	5/4/92	480	9.1	1.4	4.4	2.3
	8/20/92	ND<50	0.99	ND<0.50	ND<0.50	ND<0.50
	11/27/92	56	3.2	ND<0.50	0.87	2.1
MW-5	2/12/92	0.30	ND<0.30	ND<0.30	ND<0.30	ND<0.30
	5/4/92	ND<30	ND<0.30	ND<0.30	ND<0.30	ND<0.30
	8/20/92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	11/27/92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-6	2/12/92	2,700	14	3.5	27	39
	5/4/92	ND<30	ND<0.30	ND<0.30	ND<0.30	ND<0.30
	8/20/92	ND<50	ND<0.50	ND<0.50	ND<0.50	3.8
	11/27/92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-7	2/12/92	ND<30	ND<0.30	ND<0.30	ND<0.30	ND<0.30
	5/4/92	640	4.5	ND<0.60	11	14
	8/20/92	220	1.2	ND<0.50	3.8	4.3
	11/27/92	82	1.6	ND<0.50	4.3	3.6

TPHg = Total low to medium boiling point petroleum hydrocarbons

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

TPHg/BTEX by EPA Method 5030/8015/8020

ND = Not detected at concentrations exceeding the method detection limit.

MDL = Method detection limit

Note: For the 2/12/92 and 5/4/92 sampling rounds, the following analytes were not detected at concentrations exceeding the method detection limits, in the water samples collected from MW5:

TPHd = Total high boiling point petroleum hydrocarbons by EPA Method 8015M, MDL = 50 ppb

TOG = Total oil and grease by EPA Method 413.2 (I.R.), MDL = 1.0 ppm

HVO = Halogenated volatile organics by EPA Method 5030/8010, MDL = 0.50-5.0 ppb

Cd,Cr, Ni, and Zn = Cadmium, chromium, nickel, and zinc EPA Method 6000, MDL = 0.010-0.050

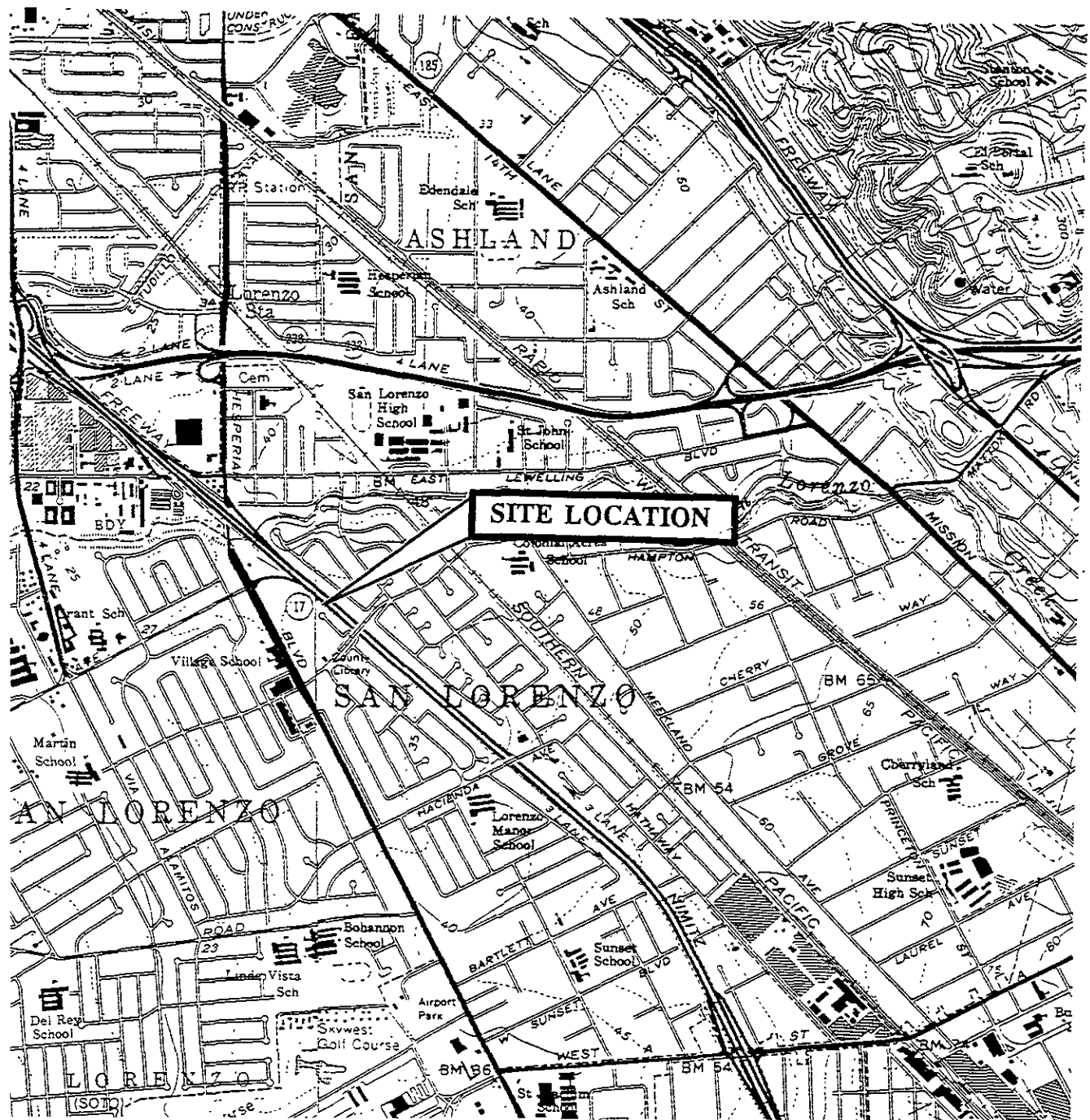
O-Pb = Organic lead by California LUFT (rev.), MDL = 0.050ppm

Note: For the 8/20/92 sampling round, the above listed analytes (with the exception of Zn at 0.012 ppm) and the below listed analytes were not detected at concentrations exceeding the method detection limits, in the water sample collected from MW-5:

SVO = Semi-volatile organics by EPA Method 8270 GC/MS, MDL = 2.0-10 ppb

PCB = Polychlorinated biphenyls by EPA Method 8080, MDL = 0.50-2.0 ppb

# FIGURES



North



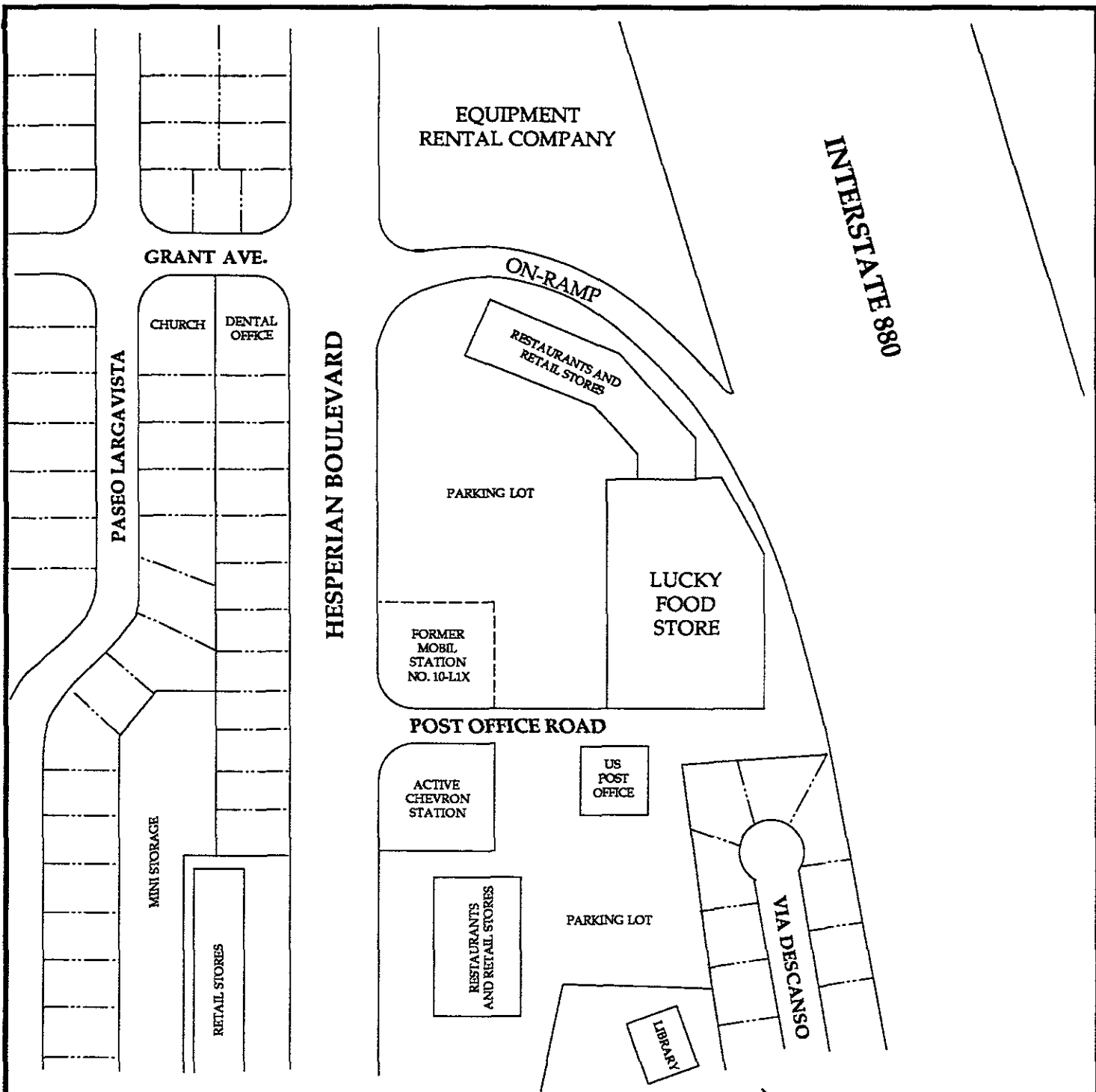
Scale 1:24,000

Source: U.S. Geological Survey  
 7.5 Minute Quadrangle Maps  
 Entitled: "San Leandro, California"  
 and "Hayward, California"  
 Revised 1980

**HYDRO**  
**ENVIRONMENTAL**  
**TECHNOLOGIES, INC.**

**SITE LOCATION MAP**  
 Former Mobil Service Station No. 10-L1X  
 15884 Hesperian Boulevard  
 San Lorenzo, California

Job No.  
 8-019  
 Figure  
 1



**EXPLANATION**

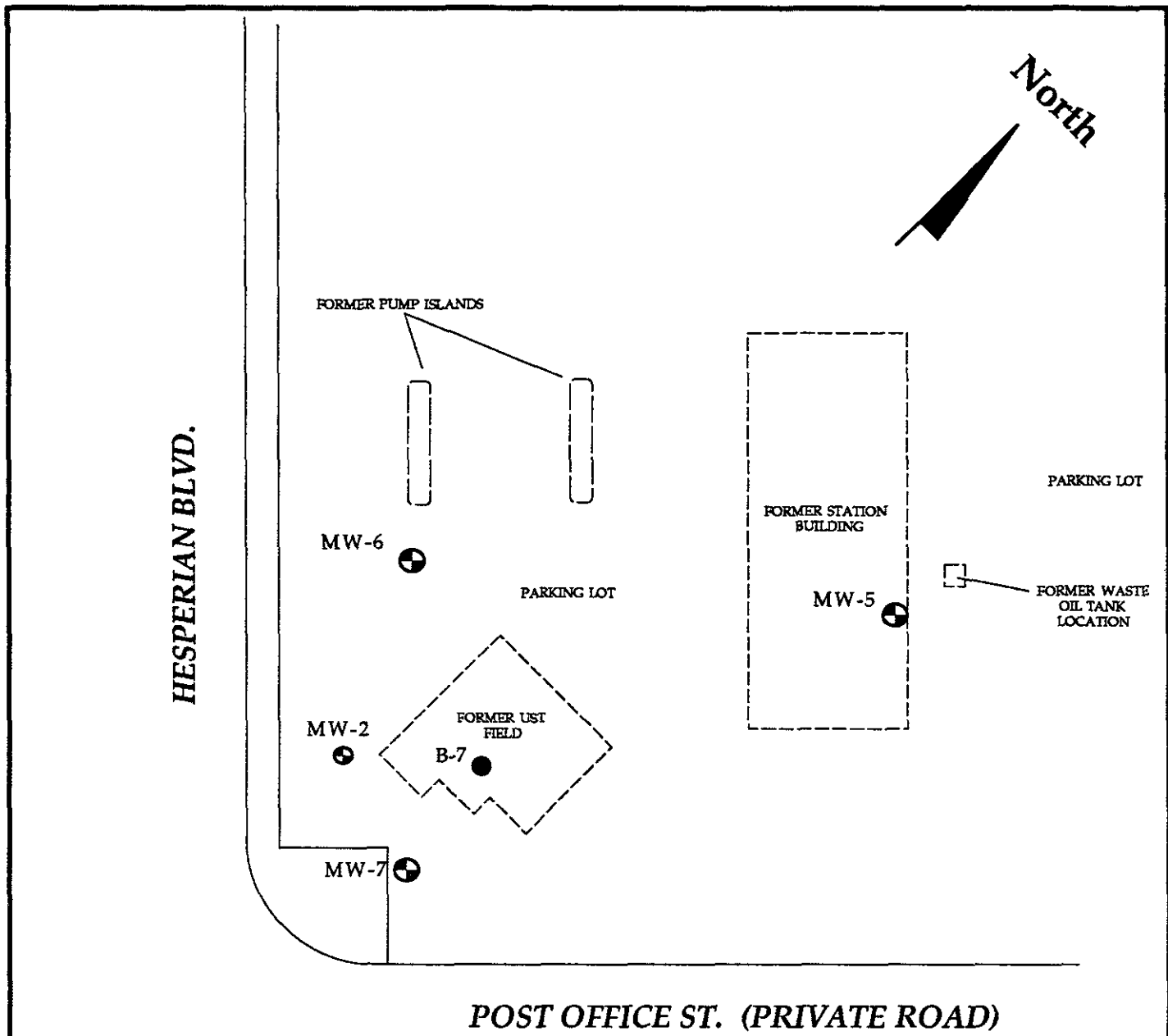
----- = RESIDENTIAL PROPERTY LINE



HYDR   
 ENVIR  NMENTAL  
 TECHN  LOGIES, INC.

**SITE VICINITY MAP**  
 Former Mobil Service Station No. 10-L1X  
 15884 Hesperian Boulevard  
 San Lorenzo, California

Job No.  
 8-019  
 Figure  
 2



POST OFFICE ST. (PRIVATE ROAD)

**EXPLANATION**

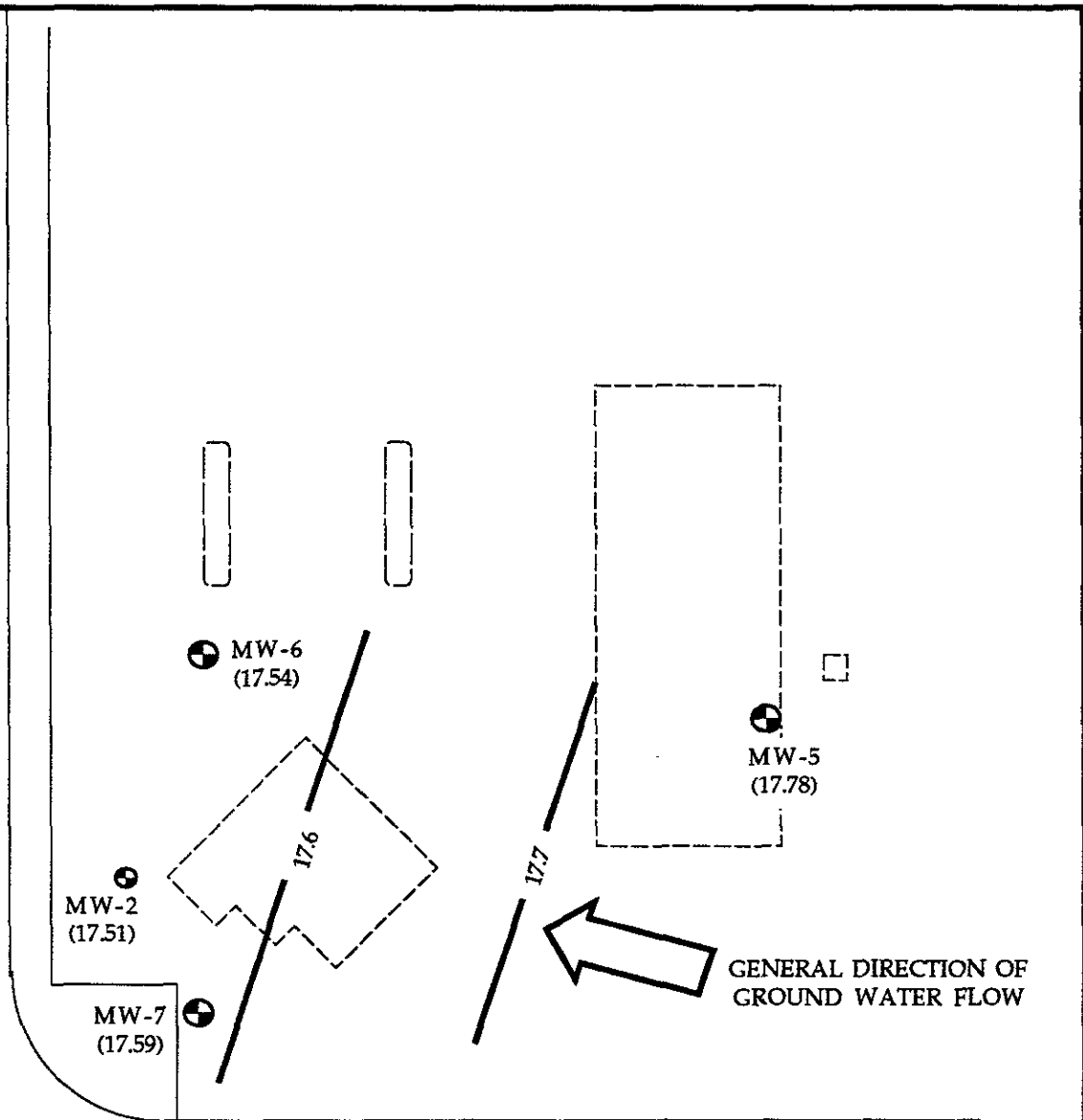
- ⊕ MW-4 = FOUR-INCH WELL INSTALLED BY HETI
- ⊙ MW-2 = TWO-INCH WELL INSTALLED BY KEI
- B-7 = SOIL BORING BY HETI



**HYDR**  
**ENVIRONMENTAL**  
**TECHNOLOGIES, INC.**

**SITE PLAN**  
 Former Mobil Station No. 10-L1X  
 15884 Hesperian Blvd.  
 San Lorenzo, California

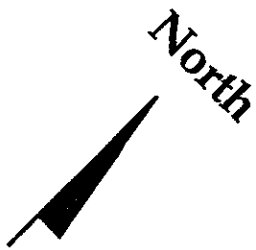
Job No.  
 8-019  
 Figure  
**3**



**EXPLANATION**

- ⊕ MW-4 = FOUR-INCH WELL INSTALLED BY HETI
- ⊕ MW-2 = TWO-INCH WELL INSTALLED BY KEI
- (17.59) = ELEVATION OF GROUND WATER - IN FEET  
BASED ON PROJECT DATUM
- 17.7 — = ESTIMATED GROUND WATER ELEVATION CONTOUR  
IN FEET - BASED ON PROJECT DATUM

BASED ON DATA COLLECTED 11/27/92



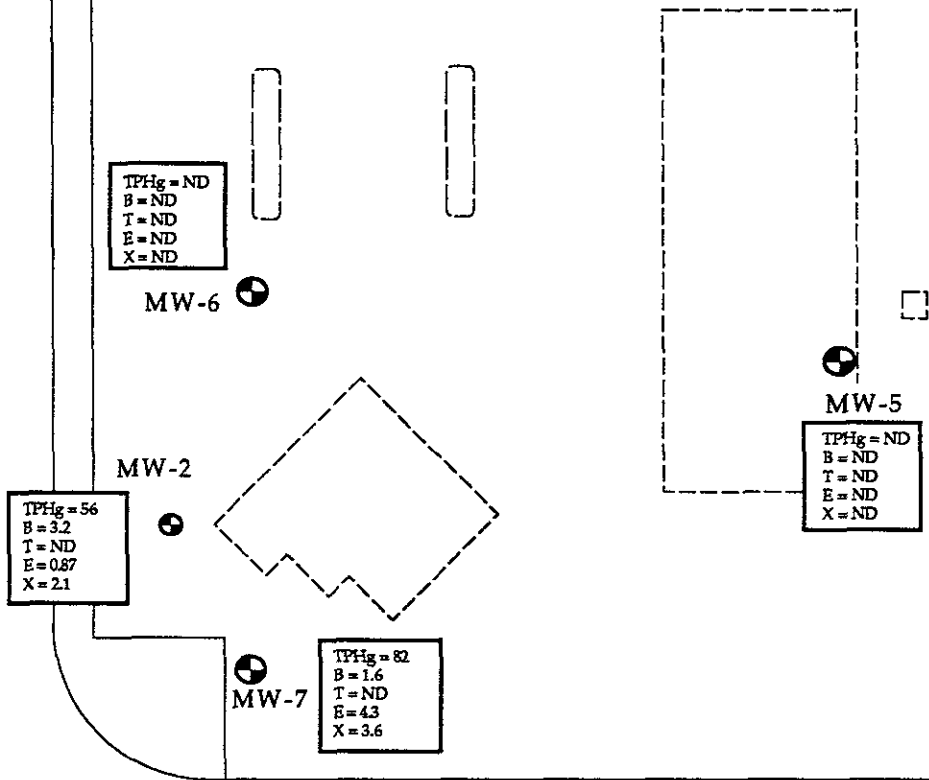
**HYDR**  
**ENVIRONMENTAL**  
**TECHNOLOGIES, INC.**

**POTENTIOMETRIC SURFACE MAP**  
 Former Mobil Station No. 10-L1X  
 15884 Hesperian Blvd.  
 San Lorenzo, California

Job No.  
 8-019  
 Figure  
 4



North



### EXPLANATION

- ⊕ MW-5 = FOUR-INCH WELL INSTALLED BY HETI
- ⊙ MW-2 = EXISTING TWO-INCH WELL INSTALLED BY KEI

TPHg = ND
B = ND
T = ND
E = ND
X = ND

= CONCENTRATION OF DISSOLVED HYDROCARBONS AS GASOLINE (TPHg), BENZENE (B), TOLUENE (T), ETHYLBENZENE (E), AND TOTAL XYLENES (X), DETECTED IN GROUND WATER SAMPLE - IN PPB

SAMPLES COLLECTED 11/27/92



**HYDR**  
**ENVIRONMENTAL**  
**TECHNOLOGIES, INC.**

**TPHg AND BTEX**  
**CONCENTRATION MAP**  
Former Mobil Station No. 10-L1x  
15884 Hesperian Blvd.  
San Lorenzo, California

Job No.  
8-019  
Figure  
**5**



# APPENDIX A

**HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.**

**WATER TABLE ELEVATION DATA**

**Location:** 15884 Hesperian Blvd., San Lorenzo, California

**Client:** MOBIL OIL CORPORATION      **Job No.** 8-019

MW No.	Elev. T.C.*	D T W	Date Measured	Elev. Water	Remarks/Observations
MW-2	31.81	14.30	11/27/92	17.51	Tan color, high turbidity, good recharge
MW-5	32.92	15.14	11/27/92	17.78	Light tan color, moderate turbidity, poor recharge
MW-6	32.68	15.14	11/27/92	17.54	Tan color, moderate turbidity, poor recharge
MW-7	33.08	15.49	11/27/92	17.59	Tan color, moderate turbidity, poor recharge
					<u>Project Datum:</u> Top of Fire Hydrant - Northeast Corner of Hesperian and Post Office Rd. Assumed Elev = 35 MSL

T. C.\* = Top of PVC Casing -- North Edge

PURGED/SAMPLED BY: HH

DATE: 11-27-92

GAUGING DATA:

Depth to bottom: 26.70 ~~28.21~~ ft.

Depth to water: 14.30 ft.

Saturated Thickness: 12.40 ft.

Conversion	
diam.	gals/ft.
<u>2 in.</u>	<u>x 0.16</u>
4 in.	x 0.65
6 in.	x 1.44

Well casing volume 2.0 gallons

# volumes to purge x 3 vols.

\*Total volume to purge = 6.0 gallons

\* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method: PVC bailer / Submersible pump / Suction lift pump / \_\_\_\_\_  
(circle one)

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
3:00	0	—	—	—
2:47	6	—	—	—

Note: no T, C, pH readings  
no T, C, pH readings

Color: tan

Turbidity: high

Recharge: good

SPP Ø ft.

SAMPLING DATA:

Sampling method: Dedicated bailer / \_\_\_\_\_

Sample for: (circle)

- IPHg/BIEX
- METALS
- TOC
- 8010
- IPHd
- O-Pb
- TEL
- 8020
- IPHmo
- Total Pb
- ED8
- 8240
- 601
- 602
- Nitrates
- 8260
- 8270
- Other: \_\_\_\_\_



MONITORING WELL PURGE/SAMPLE SHEET  
WELL # MW-2  
LOCATION former Mobil  
San Lorenzo

JOB NO.  
6019

PURGED/SAMPLED BY: HH

DATE: 11-27-92

GAUGING DATA:

Depth to bottom: 22.21 ft

Depth to water: 15.14 ft

Saturated Thickness: 7.07 ft

Conversion	
diam.	gals/ft.
2 in.	x 0.16
<u>4 in.</u>	<u>x 0.65</u>
6 in.	x 1.44

Well casing volume <sup>4.6</sup> ~~4.6~~ gallons

# volumes to purge x 3 vols.

\*Total volume to purge = 14 gallons

\* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method PVC bailer Submersible pump/ Suction lift pump/ \_\_\_\_\_  
(circle one)

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
1:15	0	—	—	—
1:18	5	/	/	/
1:24	10	/	/	/
1:26	11	/	/	/

dry →

Note: Hydrac meter fails to calibrate  
∴ no T, C, pH readings

Color: tan

Turbidity: moderate

Recharge: poor

SPP 0 ft.

SAMPLING DATA:

Sampling method: Dedicated bailer / \_\_\_\_\_

Sample for: (circle)

- TPH<sub>2</sub>/BTEX
  - METALS
  - TOC
  - 8010
  - TPST
  - O-Pb
  - TEL
  - 8020
  - TPH<sub>400</sub>
  - Total Pb
  - EDS
  - 8240
  - 601
  - 602
  - Nitrates
  - 8260
  - 8270
- Other: \_\_\_\_\_



MONITORING WELL PURGE/SAMPLE SHEET

WELL # MY-5

LOCATION former Mobil  
San Lorenzo

JOB NO.

6019

PURGED/SAMPLED BY: HH

DATE: 11-27-92

GAUGING DATA:

Depth to bottom: 22.37 ft

Depth to water: 15.14 ft

Saturated Thickness: 7.13 ft

Conversion	
diam.	gals/ft.
2 in.	x 0.16
<u>4 in.</u>	<u>x 0.65</u>
6 in.	x 1.44

Well casing volume 4.6 gallons

# volumes to purge x 3 vols.

Total volume to purge = 13.8 gallons

\* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method: PVC bailer / Submersible pump / Suction lift pump / \_\_\_\_\_  
(circle one)

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
1:44	0	—	—	—
1:58	12	—	—	—

dry →

Note: Failure of Hydrac monitor to calibrate  
 ∴ no T, C, pH readings

Color: tan

Turbidity: moderate

Recharge: DMR

SPP 0 ft.

SAMPLING DATA:

Sampling method: Dedicated bailer / \_\_\_\_\_

Sample for: (circle)

- IPHg/STEX METALS TOC 8010
- IPHd O-Pb TEL 8020
- IPH no Total Pb EDB 8240
- 601 602 Nitrates 8250 8270
- Other: \_\_\_\_\_



MONITORING WELL PURGE/SAMPLE SHEET  
 WELL # MY-6  
 LOCATION former Mobil San Lorenzo

JOB NO.  
46019

PURGED/SAMPLED BY: HH

DATE: 11-27-92

GAUGING DATA:

Depth to bottom: 23.62 ft

Depth to water: 15.49 ft

Saturated Thickness: 8.13 ft

Conversion	
diam.	gals/ft
2 in.	x 0.16
<u>4 in.</u>	<u>x 0.65</u>
6 in.	x 1.44

Well casing volume 5.3 gallons

# volumes to purge x 3 vols.

\*Total volume to purge = 16.0 gallons

\* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method PVC bailer / Submersible pump / Suction lift pump / \_\_\_\_\_  
(circle one)

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
2:14	0	—	—	—
2:31	10	/	/	/

dry →

Notes: Hydraulic meter fails to calibrate  
no T, C, pH readings

Color: tan

Turbidity: moderate

Recharge: slow

SPP 0 ft.

SAMPLING DATA:

Sampling method: Dedicated bailer / \_\_\_\_\_

Sample for: (circle)

- TPH<sub>g</sub>/BTEX
- METALS
- TOC
- 8010
- TPED
- O-Pe
- TEL
- 8020
- TPH<sub>no</sub>
- Total Pb
- ED6
- 8240
- 601
- 602
- Nitrogen
- 8260
- 8270
- Other: \_\_\_\_\_



MONITORING WELL PURGE/SAMPLE SHEET  
WELL # MW-7  
LOCATION former Mobil  
SAN LORENZO

JOB NO.  
8019

## APPENDIX B



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

RECEIVED URS - 9 1992

Hydro Environmental	Client Project ID: Mobil, 10-LIX	Sampled: Nov 27, 1992
2363 Mariner Square Dr., Bldg. 3, Suite 243	Sample Matrix: Water	Received: Dec 1, 1992
Alameda, CA 94501	Analysis Method: EPA 5030/8015/8020	Reported: Dec 8, 1992
Attention: Brian Gwinn	First Sample #: 212-0100	

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

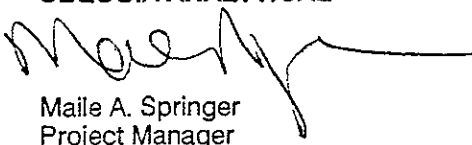
Analyte	Reporting Limit µg/L	Sample I.D. 212-0100 MW-2	Sample I.D. 212-0101 MW-5	Sample I.D. 212-0102 MW-6	Sample I.D. 212-0103 MW-7	Sample I.D.	Sample I.D.
Purgeable Hydrocarbons	50	56	N.D.	N.D.	82		
Benzene	0.50	3.2	N.D.	N.D.	1.6		
Toluene	0.50	N.D.	N.D.	N.D.	N.D.		
Ethyl Benzene	0.50	0.87	N.D.	N.D.	4.3		
Total Xylenes	0.50	2.1	N.D.	N.D.	3.6		
Chromatogram Pattern:		Gas	--	--	Gas		

### Quality Control Data

Report Limit				
Multiplication Factor:	1.0	1.0	1.0	1.0
Date Analyzed:	12/5/92	12/5/92	12/5/92	12/5/92
Instrument Identification:	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	100	98	98	99

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

SEQUOIA ANALYTICAL

  
Maile A. Springer  
Project Manager





# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

Hydro Environmental

Client Project ID: Mobil, 10-LIX

2363 Mariner Square Dr., Bldg. 3, Suite 243

Alameda, CA 94501

Attention: Brian Gwinn

QC Sample Group: 2120100 - 103

Reported: Dec 8, 1992

## QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
---------	---------	---------	---------------	---------

Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Dec 5, 1992	Dec 5, 1992	Dec 5, 1992	Dec 5, 1992
QC Sample #:	GBLK120592	GBLK120592	GBLK120592	GBLK120592

Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	9.6	9.6	9.6	29
Matrix Spike % Recovery:	96	96	96	97
Conc. Matrix Spike Dup.:	10	10	9.9	10
Matrix Spike Duplicate % Recovery:	100	100	99	100
Relative % Difference:	4.1	4.1	3.1	3.4

SEQUOIA ANALYTICAL

  
Maile A. Springer  
Project Manager

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

# Mobil Chain of Custody



**SEQUOIA ANALYTICAL**

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

Consulting Firm Name: <u>Hydro-Environmental Tech, Inc.</u>		Site SS #: <u>10-LIX</u>	Phase of Work: <input type="checkbox"/> A. Emrg. Response <input type="checkbox"/> B. Site Assessment <input type="checkbox"/> C. Remediation <input checked="" type="checkbox"/> D. Monitoring <input type="checkbox"/> E. OGC/Claims
Address: <u>2363 Mariner Square Dr, #243</u>		Mobil Site Address: <u>15884 Hesperian, San Lorenzo</u>	
City: <u>Alameda</u> State: <u>CA</u> Zip Code: <u>94501</u>	Mobil Engineer: <u>Randy Begier</u>		
Telephone: <u>510/521-2684</u> FAX #: <u>521-5078</u>	Consultant Project #: <u>68-019</u>		
Project Contact: <u>Brian Gwinn</u>	Sampled by: <u>Henry Hukuma</u>	Sequoia's Work Order Release #:	

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 418.1	Oil & Grease EPA 413.2	
1. MW-2	11-27-92	H <sub>2</sub> O	2	2120100	X				
2. MW-5	↓	↓	↓	101	X				
3. MW-6	↓	↓	↓	102	X				
4. MW-7	↓	↓	↓	103	X				
5.									
6.									
7.									
8.									
9.									
10.									

Relinquished By: <u>Henry Hukuma</u>	Date: <u>11/30/92</u>	Time: <u>1:30 PM</u>	Received By: <u>[Signature]</u>	Date: <u>11/30/92</u>	Time: <u>1:30 PM</u>
Relinquished By: <u>Henry Hukuma</u>	Date: <u>11/30/92</u>	Time: <u>2:10 PM</u>	Received By: <u>[Signature]</u>	Date: <u>11/30/92</u>	Time: <u>1410</u>
Relinquished By: <u>[Signature]</u>	Date: <u>12/1/92</u>	Time: <u>12:50</u>	Received By: <u>[Signature]</u>	Date: <u>11/92</u>	Time: <u>12:50</u>

**Mobil Oil Corporation  
Quarterly Update Report  
Former Mobil Service Station 10-L1X**

Site Address: 15884 Hesperian Blvd., San Lorenzo, California

Hydro-Environmental Technologies, Inc. Project No. 8-019

Brian Gwinn - Project Manager

Telephone Number: (510) 521-2684

Date: December 7, 1992 (covers the period from July to September, 1992)

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Background:

In March, 1986, Mobil retained KEI to collect soil samples during the removal of three underground steel gasoline storage tanks and one waste oil tank from the site. In July, 1986, KEI installed and sampled four monitoring wells at the site. In December, 1987, KEI collected soil samples during the removal of four fiberglass underground storage tanks from the site. KEI continued monitoring the site until November, 1988.

In October, 1991, HETI was retained by Mobil to perform a subsurface investigation at the site. The site was no longer used as an active station and was instead used as a portion of a parking lot for a shopping center. Two of KEI's wells were found to exist at the site, but one was filled with debris and was not useable. In January 1992, HETI installed three additional on-site monitoring wells.

Current site work involves quarterly monitoring of the existing wells, and permitting to install additional, off-site downgradient monitoring wells to further evaluate the extent of the dissolved hydrocarbon plume. Preferred off-site well locations are in Hesperian Blvd.; however, the Alameda County Department of Public Works has indicated that the monitoring well "shall be located out of the travelled way." At that juncture of permitting, Mobil requested aid in obtaining access to Hesperian Boulevard from the Alameda County Department of Environmental Health. In addition, Mobil also requested access to several residential properties located opposite the site, across Hesperian Blvd. As of this date, three property owners have denied access.

Recent Field Work Performed:

- Quarterly water samples were collected on August 20, 1992.

Reporting:

- A Quarterly Monitoring Report (presenting the results of the August 20, 1992 sampling) was submitted to Mobil on September 30, 1992.

Site Status:

- The downgradient extent of the dissolved hydrocarbon plume has not been delineated.

- Preferred downgradient drilling are located in the middle of Hesperian Blvd. Request for access to Hesperian Blvd. is being aided Alameda County Department of Environmental Health.
- Alternative (second choice) off-site drilling locations are located further downgradient on residential property. Requests for access have been submitted to several downgradient property owners.

Future Activities:

- Continue quarterly sampling to monitor dissolved hydrocarbon distribution.
- Install additional off-site monitoring wells to further delineate the downgradient extent of the hydrocarbon plume once access agreements/encroachment permits are obtained.



Brian Gwinn  
Project Manager