Reviewed on 5/16/95 by AP Keech
Note Case should be considered for closure after next sampling event.

HYDRO ENVIRONMENTAL TECHNOLOGIES, INC.

2363 Mariner Square Drive, Suite 243
Alameda California 94501
Tel 510 521 2684
Fax 510 521 3078

1 800 317 HETI
Massachusetts
New York

ENVIRONMENTAL
HEALTH

95 MAR 29 PM 1:15

March 24, 1995 **8-019**

Ms. Juliet Shin
Alameda County Department of
Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: Former Mobil S/S No. 10-L1X, 15884 Hesperian Boulevard, San Lorenzo, CA

Dear Ms. Shin:

Enclosed please find one copy of Hydro-Environmental Technologies, Inc.'s (HETI's) Quarterly Monitoring Report for sampling conducted on February 17, 1995 at the above-referenced site.

If you have any questions or require additional information, please feel free to call me at (510) 521-2684.

Sincerely,
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

FRANCES MARONI

Frances H. Maroni
Project Manager

enclosure

cc: Ms. Michele Fear - Mobil Oil Corporation, Fairfax, VA (w/o enclosure)

HYDRO
ENVIRONMENTAL
TECHNOLOGIES, INC.

BI-ANNUAL MONITORING REPORT

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

Sampling Date: February 17, 1995

Prepared for:

MOBIL OIL CORPORATION
3225 Gallows Rd., Rm 2M211
Fairfax, VA 22037

Prepared by:

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.
2363 Mariner Square Drive, Suite 243
Alameda, California 94501
HETI Job No. 8-019

March 9, 1995

HYDRO ENVIRONMENTAL TECHNOLOGIES, INC.

TABLE OF CONTENTS

1.0 INTRODUCTION

This report presents the results of quarterly ground water sampling conducted by Hydro-Environmental Technologies, Inc. (HETI) at former Mobil Service Station No. 10-L1X, located at 15884 Hesperian Boulevard in San Lorenzo, California. A site location map is attached as Figure 1. Ground water sampling was performed on February 17, 1995.

Work performed at the site by HETI included: (1) well gauging, (2) well purging, (3) collection of ground water samples from five monitoring wells at the site and (4) analysis of water samples for total petroleum hydrocarbons as gasoline (TPHg) using EPA Method 8015 (modified), and benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8020 (modified).

2.0 BACKGROUND

The site was previously a Mobil gasoline service station located at the northern corner of the intersection of Hesperian Boulevard and Post Office Street in San Lorenzo, California. It is presently a paved parking lot for a shopping mall. Figure 2 shows the vicinity of the site, and Figure 3 shows the layout of the site and the location of existing monitoring wells.

In July 1986, Kaprealian Engineering, Inc. (KEI) installed four two-inch diameter monitoring wells (MW-1 through MW-4) on-site. In December 1987, in preparation to abandon the site, the underground storage tanks were removed and the tank pit was over-excavated.

In October 1991, HETI conducted 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 the well, and wells MW-1 and MW-4 could not be located and their existence/condition is unknown.

In January 1992, HETI installed three monitoring wells on-site (MW-5, MW-6 and MW-7) and properly abandoned monitoring well MW-3. Results of that phase of the investigation and a detailed project history were presented in HETI's *Phase I Report* dated May 7, 1992.

In August 1993, HETI installed one additional downgradient monitoring well (MW-8), off-site on the southwestern side of Hesperian Boulevard. Results of that phase of the investigation were presented in HETI's *Phase II Subsurface*

Investigation and Quarterly Monitoring Report dated September 16, 1993. All monitoring well locations are shown on the Site Plan (Figure 3).

A revised sampling program has been approved by the Alameda County Department of Environmental Health (ACDEH) and has been implemented at this site. All wells, MW-2 and MW-5 through MW-8, are sampled on a semi-annual basis. The wells will be sampled next in August, 1995.

3.0 FIELD ACTIVITIES

HETI personnel collected ground water samples from all four on-site wells and one off-site well on February 17, 1995. All sampling was performed according to HETI standard protocol, using methods which are consistent with guidelines established by the lead regulatory agencies. A copy of HETI's Ground Water Sampling Protocol has previously been submitted to the ACDEH.

Prior to purging the wells, the depth to first encountered groundwater in each of the five wells was gauged to the nearest hundredth of a foot using an electronic water sounder. Prior to sampling all monitoring wells, at least three well casing volumes were purged while the parameters of temperature, pH and conductivity were monitored for stabilization. Purging data is included in Appendix A.

Following recovery of the water level in each of the wells to at least 80 percent of their static level, ground water samples were collected with dedicated bailers. The samples were transferred to sample containers provided by the analytical laboratory. Sample containers were documented, labeled and placed in a cooler. A chain of custody was prepared and accompanied the samples to the laboratory; a copy is included in Appendix B. Ground water sample analysis was performed by Sequoia Analytical, a state DHS-certified laboratory located in Redwood City, California.

4.0 RESULTS

4.1 Ground Water Data

On February 17, 1995 depth to ground water in the wells ranged between 9.94 to 11.25 feet below grade. Depth to water measurements and calculated ground water elevations in the wells are presented on Table 1. The depth to water measurements and the wellhead elevation data were used to calculate ground water elevation contours. These contours are shown on Figure 4, the Ground Water Contour Map. Figure 4 shows ground water flow to be towards the southwest at an approximate gradient of 0.0026 (0.26%).

4.2 Laboratory Analytical Results

TPHg was detected in the groundwater sample collected from well MW-7 at a concentration of 71 micrograms per liter (µg/L). Benzene was not detected above the indicated laboratory method detection limit in any of the ground water samples collected from all the wells. Analytical results are presented graphically on Figure 5, the Hydrocarbon Concentration Map. A summary of ground water analytical results is presented on Table 1. Copies of the laboratory report and the chain-of-custody form are attached in Appendix B.

5.0 SUMMARY

The results of the field activities and laboratory analyses of ground water samples collected during this sampling round are discussed below:

- Ground water elevations measured in all the wells ranged from 9.94 to 11.25 feet below grade. The ground water gradient was calculated to be approximately 0.0026 in a general southwesterly direction beneath the site.
- Separate phase petroleum was not detected in any of the monitoring wells.
- TPHg was detected in the ground water sample collected from well MW-7 at a concentration of 71 µg/L.

6.0 RECOMMENDATIONS

Due to the relatively low dissolved hydrocarbon concentrations detected in the monitoring wells at this site, HETI recommends that all wells continue to be sampled on a bi-annual (twice-yearly) basis.

7.0 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 work performed by Hydro-Environmental Technologies, Inc.

It is possible that variations in 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.

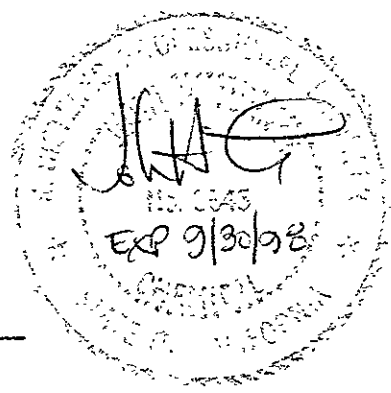
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

Prepared by:

FRANCES MARONI

Frances Maroni
Project Manager

Reviewed by:



John Turney, P.E.
Senior Engineer

TABLES

Table 1

GROUND WATER ELEVATIONS AND ANALYTICAL RESULTS

Former Mobil Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

MW-No.	Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-2	2/12/92	31.81	12.74	19.07	NT	190	4.4	ND<0.3	4.7	3.8
	5/4/92	31.81	11.36	20.45	NT	480	9.1	1.4	4.4	2.3
	8/20/92	31.81	13.80	18.01	NT	ND<50	0.99	ND<0.5	ND<0.5	ND<0.5
	11/27/92	31.81	14.30	17.51	NT	56	3.2	ND<0.5	0.87	2.1
	2/24/93	31.81	9.73	22.08	NT	330	14	ND<0.5	ND<0.5	ND<0.5
	5/19/93	31.81	11.82	19.99	NT	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/19/93	31.81	12.27	19.54	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/19/93	31.81	12.91	18.90	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/18/94*	31.81	10.30	21.51	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/24/94	31.81	11.25	20.56	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/24/94	31.81	12.77	19.04	NT	NT	NT	NT	NT	NT
	2/17/95	31.81	9.99	21.82	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-5	2/12/92	32.92	13.59	19.33	ND<50	0.3	ND<0.3	ND<0.3	ND<0.3	ND<0.3
	5/4/92	32.92	12.25	20.67	ND<50	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3
	8/20/92	32.92	14.62	18.30	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/27/92	32.92	15.14	17.78	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/24/93	32.92	10.57	22.35	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/19/93	32.92	11.66	21.26	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/19/93	32.92	13.01	19.91	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/19/93	32.92	13.69	19.23	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/18/94*	32.92	11.10	21.82	NT	NT	NT	NT	NT	NT
	5/24/94	32.92	12.03	20.89	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/24/94	32.92	13.59	19.33	NT	NT	NT	NT	NT	NT
	2/17/95	32.92	10.87	22.05	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Table 1

GROUND WATER ELEVATIONS AND ANALYTICAL RESULTS

Former Mobil Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

MW-No.	Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-6	2/12/92	32.68	13.57	19.11	NT	2700	14	3.5	27	39
	5/4/92	32.68	12.23	20.45	NT	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3
	8/20/92	32.68	14.64	18.04	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	3.8
	11/27/92	32.68	15.14	17.54	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/24/93	32.68	10.62	22.06	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/19/93	32.68	11.66	21.02	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/19/93	32.68	13.06	19.62	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/19/93	32.68	13.73	18.95	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/18/94*	32.68	11.20	21.48	NT	NT	NT	NT	NT	NT
	5/24/94	32.68	12.11	20.57	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/24/94	32.68	13.60	19.08	NT	NT	NT	NT	NT	NT
	2/17/95	32.68	10.85	21.83	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-7	2/12/92	33.08	13.90	19.18	NT	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3
	5/4/92	33.08	12.60	20.48	NT	640	4.5	ND<0.6	11	14
	8/20/92	33.08	14.96	18.12	NT	220	1.2	ND<0.5	3.8	4.3
	11/27/92	33.08	15.49	17.59	NT	82	1.6	ND<0.5	4.3	3.6
	2/24/93	33.08	10.97	22.11	NT	82	1.5	ND<0.5	6.0	4.0
	5/19/93	33.08	12.09	20.99	NT	67	0.85	ND<0.5	6.4	3.8
	8/19/93	33.08	13.48	19.60	NT	88	1.7	ND<0.5	9.0	4.8
	11/19/93	33.08	14.10	18.98	NT	50	ND<0.5	ND<0.5	1.5	ND<0.5
	2/18/94*	33.08	11.55	21.53	NT	61	1.2	ND<0.5	8.0	3.2
	5/24/94	33.08	12.48	20.60	NT	83	0.95	ND<0.5	10	4.0
	8/24/94	33.08	13.98	19.10	NT	77	0.57	ND<0.5	6.9	2.8
	2/17/95	33.08	11.25	21.83	NT	71	ND<0.5	ND<0.5	4.3	2.2

Table 1

GROUND WATER ELEVATIONS AND ANALYTICAL RESULTS

Former Mobil Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

MW-No.	Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-8	8/19/93	31.31	12.21	19.10	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/19/93	31.31	12.84	18.47	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/18/94*	31.31	10.41	20.90	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/24/94	31.31	11.21	20.10	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/24/94	31.31	12.71	18.60	NT	NT	NT.	NT	NT	NT
	2/17/95	31.31	9.94	21.37	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5

MW-No.	Date	TOG (mg/L)	HVO (µg/L)	SVO (µg/L)	PCB (µg/L)	Cd (mg/L)	Cr (mg/L)	Ni (mg/L)	Zn (mg/L)	O-Pb (mg/L)
MW-5	2/12/92	ND<1.0	ND<0.5-5.0	NT	NT	ND<0.010	ND<0.010	ND<0.050	ND<0.010	ND<0.050
	5/4/92	ND<1.0	ND<0.5-5.0	NT	NT	ND<0.010	ND<0.010	ND<0.050	ND<0.010	ND<0.050
	8/20/92	ND<1.0	ND<0.5-5.0	ND<2-10	ND<0.5-2.0	ND<0.010	ND<0.010	ND<0.050	0.012	ND<0.050

Table 1

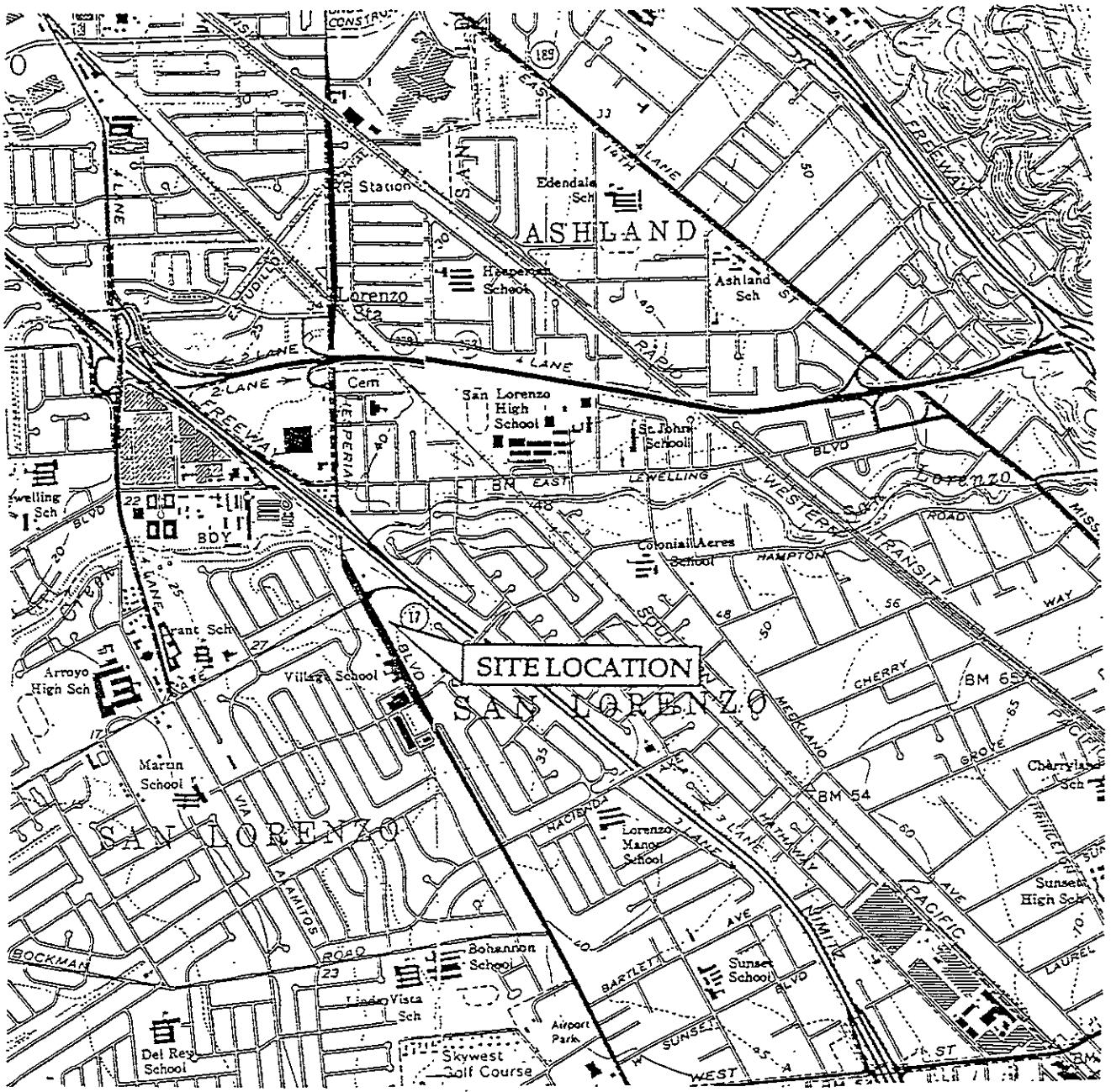
GROUND WATER ELEVATIONS AND ANALYTICAL RESULTS

Former Mobil Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

Notes:

MW No. :	Monitoring well number
Date :	Ground water sample collection date
TOC :	Elevation at the north side of the top of the well casing referenced to approximate mean sea level
DTW :	Depth to water
GWE :	Ground water elevation
TPHd :	Total petroleum hydrocarbons as diesel by EPA Method 8015
TPHg :	Total petroleum hydrocarbons as gasoline by EPA Method 8015
BTEX :	Benzene, Toluene, Ethylbenzene and total Xylenes by EPA Method 8020
TOG :	Total oil and grease by EPA Method 413.2 (I.R.)
HVO :	Halogenated volatile organics by EPA Method 8010
SVO:	Semi-volatile organics by EPA Method 8270 GC/MS
PCB:	Polychlorinated biphenyls by EPA Method 8080
Cd, Cr, Ni, Zn :	Cadmium, chromium, nickel and zinc by EPA Method 6000
O-Pb	Organic lead by California LUFT Manual (revised)
µg/L :	Micrograms per liter
mg/L :	Milligrams per liter
ND :	Not detected in concentrations exceeding the indicated laboratory method detection limit
NT :	Not tested
*	Wells gauged on 2/24/94

FIGURES



SCALE 1:24 000

1 0 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

NORTH

QUADRANGLE LOCATION

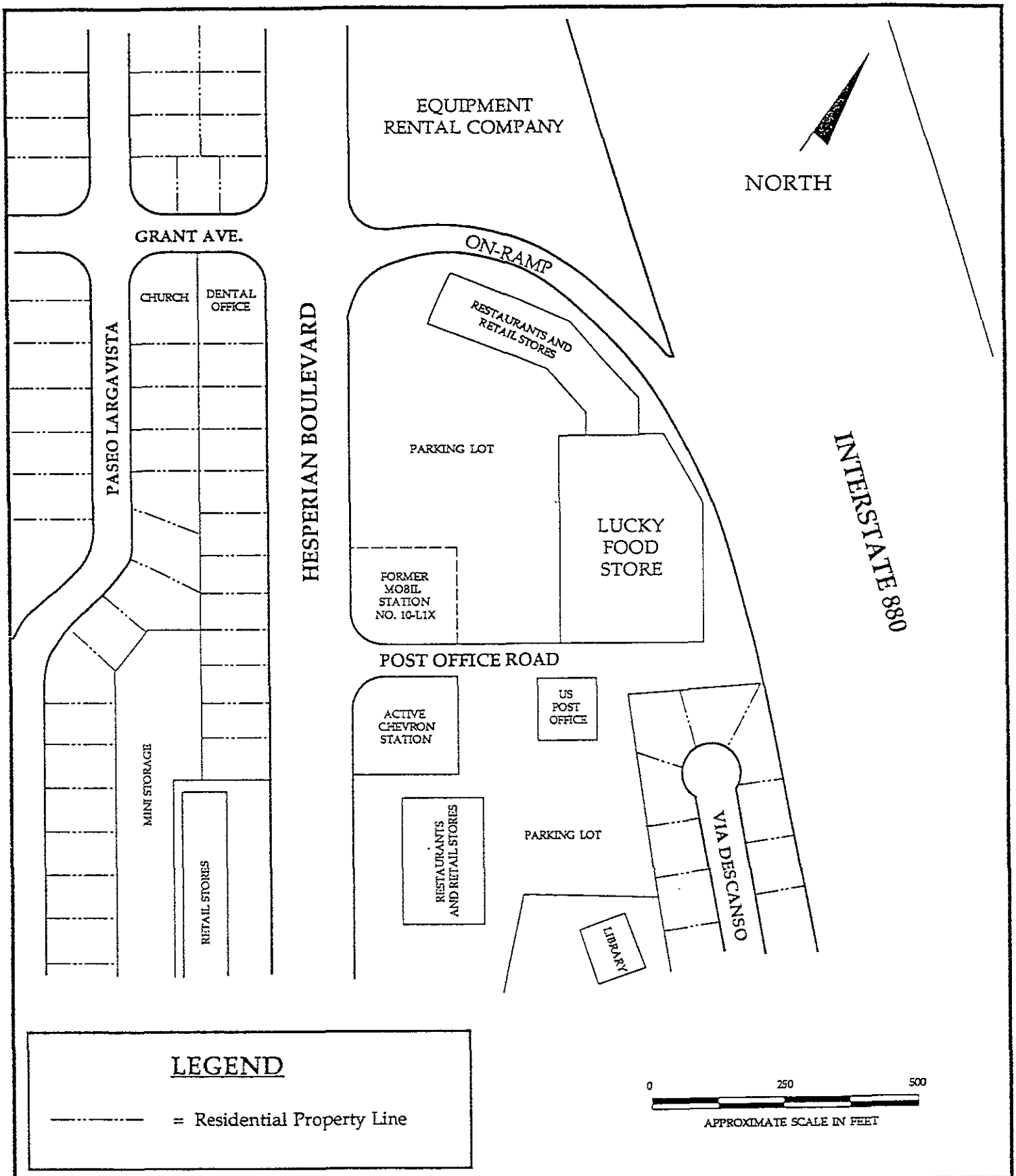
SOURCE: U.S. GEOLOGICAL SURVEY
7.5 MINUTE QUADRANGLE MAPS
ENTITLED: "SAN LEANDRO, CALIFORNIA"
AND "HAYWARD, CALIFORNIA"
PHOTOREVISED 1980

HYDRO-
ENVIRONMENTAL
TECHNOLOGIES, INC.

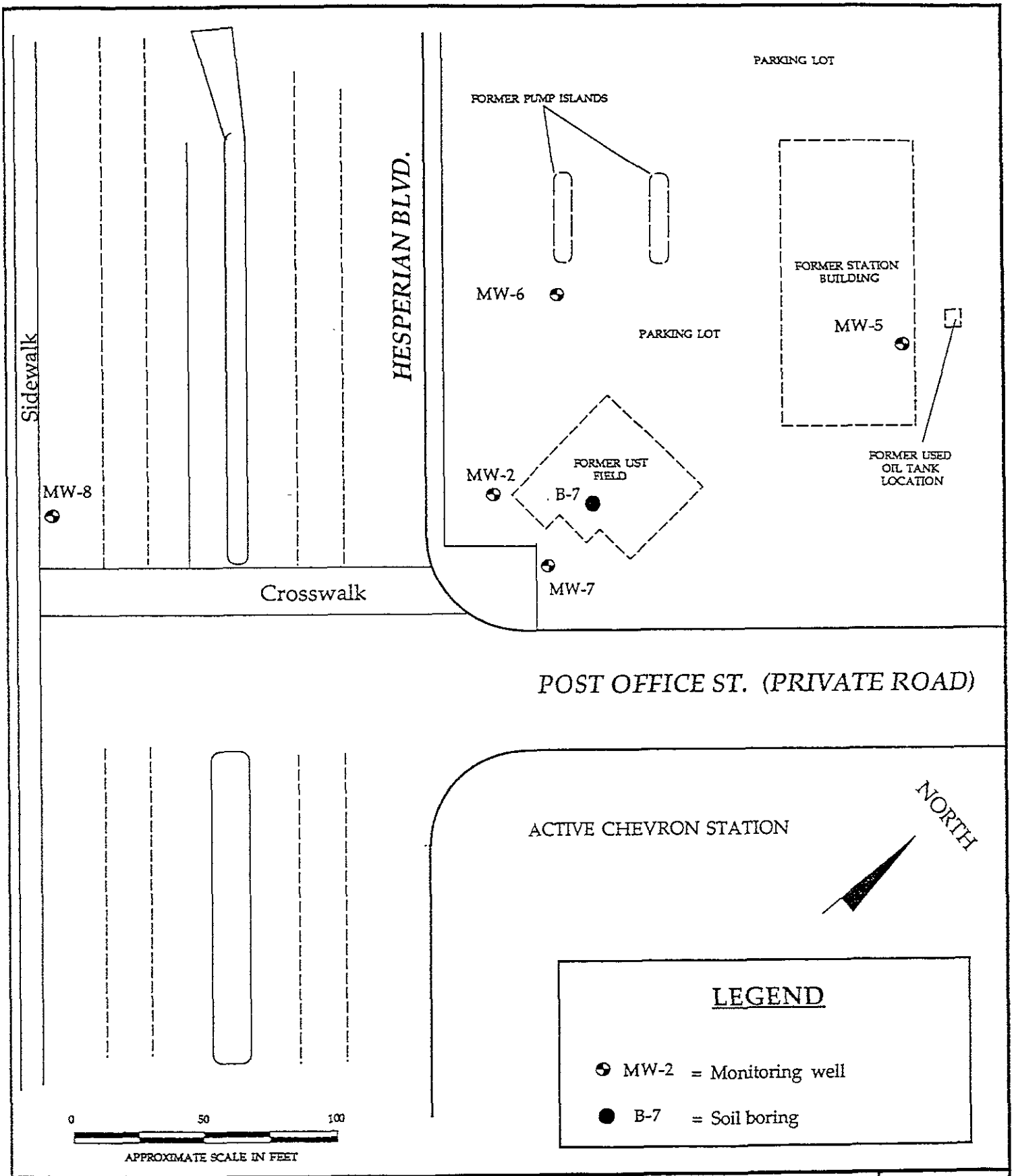
SITE LOCATION MAP
Former Mobil Service Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

Figure
1

8-019 1/94



HYDR◆- ENVIR◆NMENTAL TECHN◆LOGIES, INC.	SITE VICINITY MAP Former Mobil Service Station No. 10-L1X 15884 Hesperian Boulevard San Lorenzo, California	Figure 2 8-019 9/93



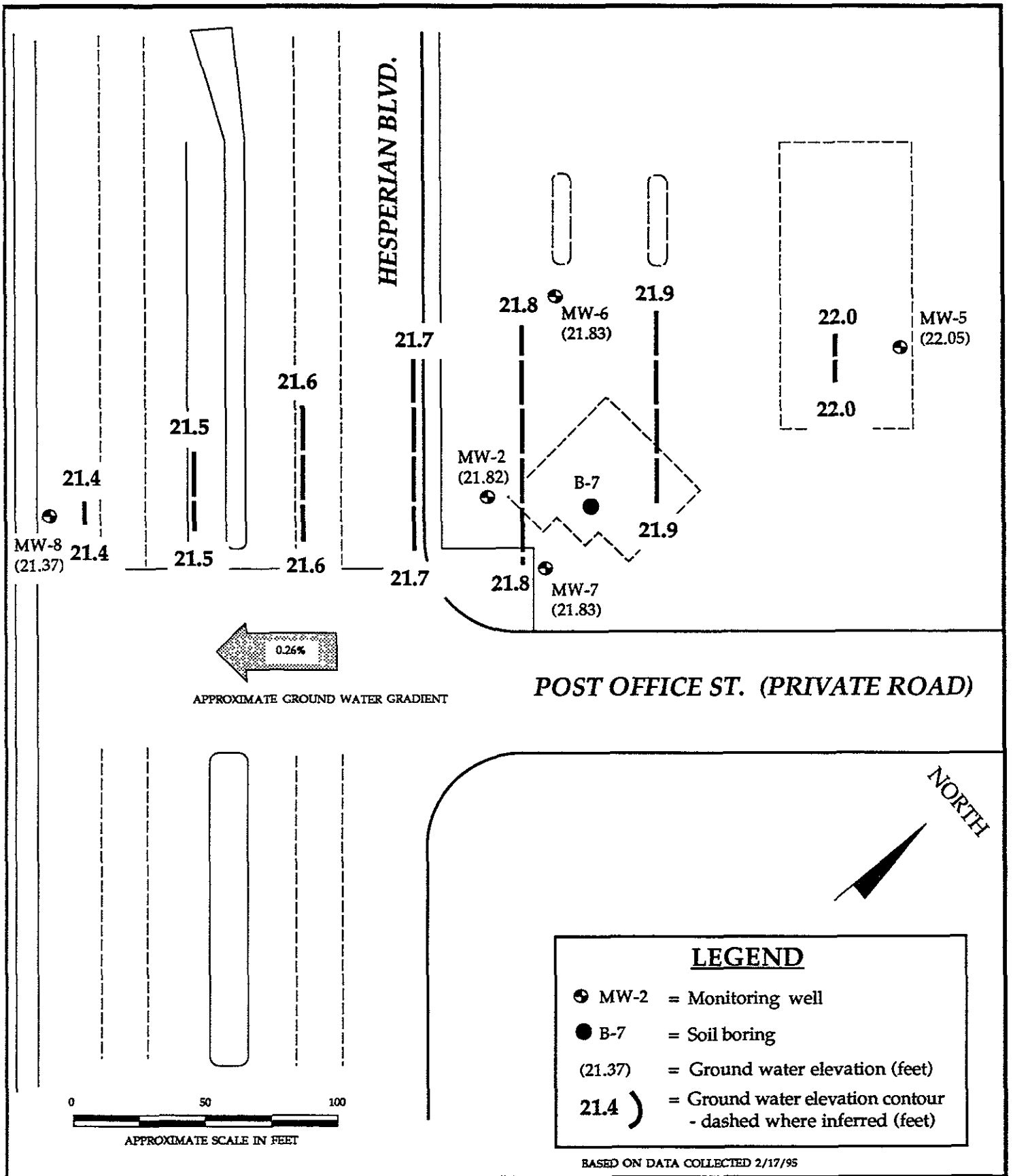
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

SITE PLAN

Former Mobil Service Station No. 10-L1X
15884 Hesperian Blvd.
San Lorenzo, California

Figure 3

8-019 9/93

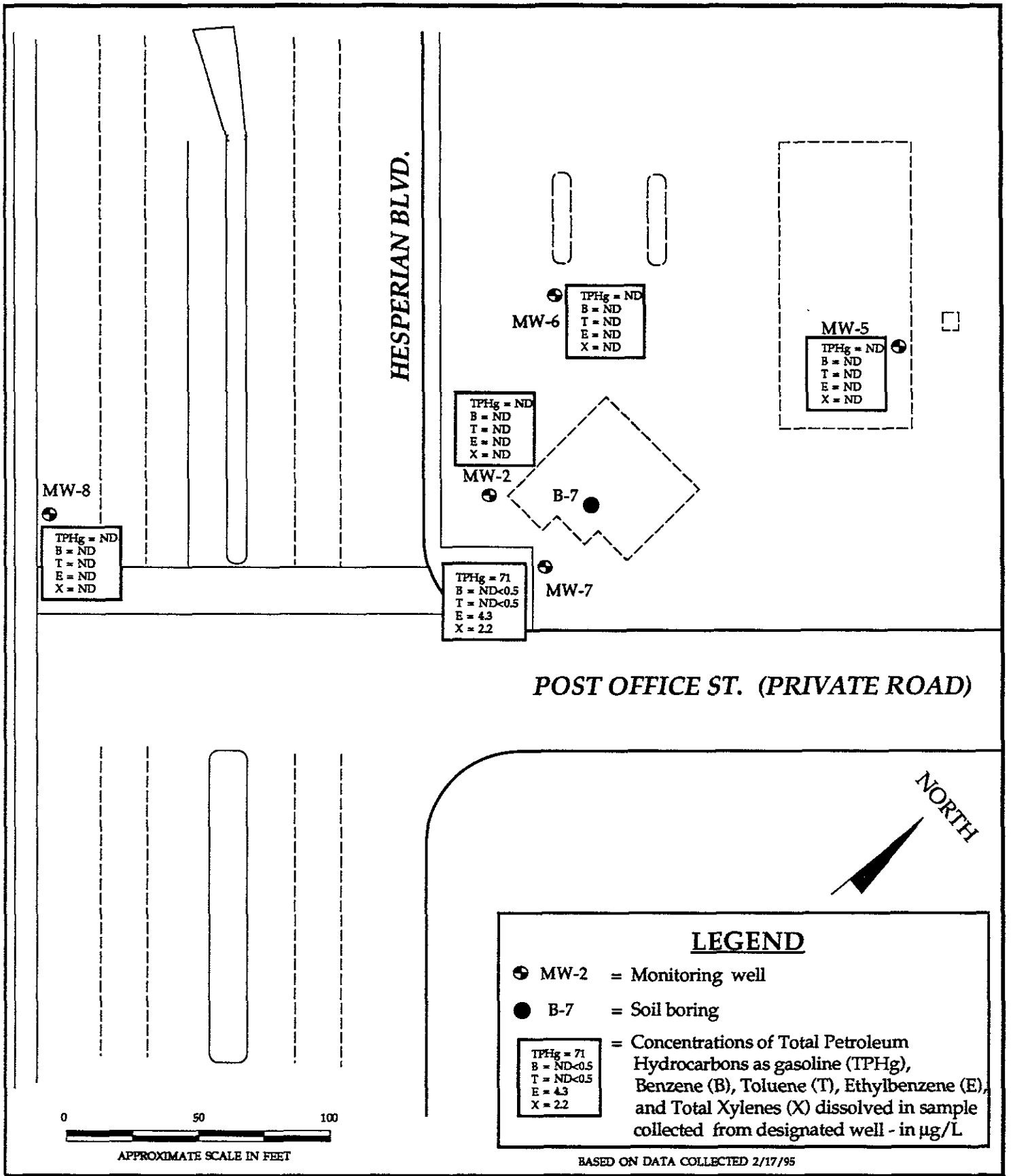


HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

GROUND WATER CONTOUR MAP
Former Mobil Service Station No. 10-L1X
15884 Hesperian Blvd.
San Lorenzo, California

Figure 4

8-019 2/95



LEGEND

- MW-2 = Monitoring well
- B-7 = Soil boring
- TPHg = 71, B = ND<0.5, T = ND<0.5, E = 4.3, X = 2.2 = Concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene (B), Toluene (T), Ethylbenzene (E), and Total Xylenes (X) dissolved in sample collected from designated well - in µg/L

BASED ON DATA COLLECTED 2/17/95

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

HYDROCARBON CONCENTRATION MAP
Former Mobil Service Station No. 10-L1X
15884 Hesperian Blvd.
San Lorenzo, California

Figure 5

8-019 2/95

APPENDIX A

THE SITE FIELD NOTES

PURGED/SAMPLED BY: FM DATE: 2/17/95

GAUGING DATA:

Depth to bottom: 25.75 ft.

Depth to water: 9.99 ft.

Saturated Thickness: 15.76 ft.

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

Well casing volume 2.52 gallons

volumes to purge x 3 vols.

*Total volume to purge = 7.56 gallons

* unless chemical parameters do not stabilize

PURGING DATA:

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

Temp/Conductivity/pH Instrument: HYDAC #1

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
1000	0	—	—	—
↓	2	72.6	1.49	6.92
↓	4	70.6	1.43	6.97
↓	6	69.5	1.40	6.98
1020	8	69.4	1.40	6.99

Color: GRAY Turbidity: SLIGHT

Recharge: GOOD SPP — ft. Sheen —

SAMPLING DATA:

Sampling method: (Dedicated bailer) / Disposable bailer

Sample for: (circle)

(TPHg/BTEX) METALS TOG 8010

TPHd O-Pb TEL 8020

TPH mo Total Pb EDB 8240

601 602 Nitrates 8260

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE DATA SHEET

WELL # MW-2

LOCATION: Mobil Oil, San Lorenzo, CA

Job No. 8-019.1

SHEET 1 of 1

PURGED/SAMPLED BY: FM DATE: 2/17/95

GAUGING DATA:

Depth to bottom: 22.15 ft.

Depth to water: 10.87 ft.

Saturated Thickness: 11.28 ft.

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

Well casing volume 7.33 gallons

volumes to purge x 3 vols.

*Total volume to purge = 22.0 gallons

* unless chemical parameters do not stabilize

PURGING DATA:

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

Temp/Conductivity/pH Instrument: HYDAC #1

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
1130	0	—	—	—
↓	5	72.2	0.68	6.80
	10	72.1	0.68	6.80
	15	71.8	0.68	6.80
↓	20	71.8	0.69	6.82
1205	22	70.4	0.69	7.10

Color: TAN Turbidity: SLIGHT

Recharge: FAIR SPP ___ ft. Sheen ___

SAMPLING DATA:

Sampling method: (Dedicated bailer) / Disposable bailer

Sample for: (circle)

(TPHg/BTEX) METALS TOG 8010

TPHd O-Pb TEL 8020

TPH mo Total Pb EDB 8240

601 602 Nitrates 8260

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE DATA SHEET

WELL # MW-5

LOCATION: Mobil Oil, San Lorenzo, CA

Job No. 8-019.1

SHEET 1 of 1

PURGED/SAMPLED BY: FM DATE: 2/17/95

GAUGING DATA:

Depth to bottom: 22.25 ft.

Depth to water: 10.85 ft.

Saturated Thickness: 11.40 ft.

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

Well casing volume 7.41 gallons

volumes to purge x 3 vols.

*Total volume to purge = 22.23 gallons

* unless chemical parameters do not stabilize

PURGING DATA:

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

Temp/Conductivity/pH Instrument: H/DAT. #1

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
10^45	0	—	—	—
	5	72.7	0.53	6.89
	10	72.6	0.52	6.89
	15	72.3	0.54	6.89
↓	20	72.5	0.55	6.90
11^10	22.5	71.5	0.54	6.96

Color: TAN Turbidity: SLIGHT

Recharge: GOOD SPP — ft. Sheen —

SAMPLING DATA:

Sampling method: Dedicated bailer / Disposable bailer

Sample for: (circle)

TPHg/BTEX	METALS	TOG	8010
TPHd	O-Pb	TEL	8020
TPH mo	Total Pb	EDB	8240
601	602	Nitrates	8260

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE DATA SHEET

WELL # MW-6

LOCATION: Mobil Oil, San Lorenzo, CA

Job No. 8-019.1

SHEET 1 of 1

PURGED/SAMPLED BY: FM DATE: 2/17/95

GAUGING DATA:

Depth to bottom: 24.25 ft.

Depth to water: 11.25 ft.

Saturated Thickness: 13.0 ft.

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

Well casing volume 8.45 gallons

volumes to purge x 3 vols.

*Total volume to purge = 25.4 gallons

* unless chemical parameters do not stabilize

PURGING DATA:

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

Temp/Conductivity/pH Instrument: _____

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
1255	0	—	—	—
	5	71.4	2.61 ~~2.76~~	9.49
	10	71.7	2.60	9.29
	15	71.7	4.58	8.80
↓	20	71.7	5.80	8.01
1320	25.5	71.6	6.34	7.71

Color: DARK GREY Turbidity: SLIGHT

Recharge: FAIR SPP — ft. Sheen —

SAMPLING DATA:

Sampling method: (Dedicated bailer) / Disposable bailer

Sample for: (circle)

(TPHg/BTEX)	METALS	TOG	8010
TPHd	O-Pb	TEL	8020
TPH mo	Total Pb	EDB	8240
601	602	Nitrates	8260

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE DATA SHEET

WELL # MW-7

LOCATION: Mobil Oil, San Lorenzo, CA

Job No. 8-019.1

SHEET 1 of 1

PURGED/SAMPLED BY: FM DATE: 2/17/95

GAUGING DATA:

Depth to bottom: 22.35 ft.

Depth to water: 9.94 ft.

Saturated Thickness: 12.41 ft.

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

Well casing volume 1.98 gallons

volumes to purge x 3 vols.

*Total volume to purge = 6 gallons

* unless chemical parameters do not stabilize

PURGING DATA:

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

Temp/Conductivity/pH Instrument: HNAC #1

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
12^20 pm	0	—	—	—
↓	2	68.7	0.63	6.82
↓	4	68.6	0.64	6.80
12^35 pm	6	68.6	0.64	6.82

Color: TAN Turbidity: MODERATE

Recharge: GOOD SPP — ft. Sheen —

SAMPLING DATA:

Sampling method: Dedicated bailer / Disposable bailer

Sample for: (circle)

TPHg/BTEX	METALS	TOG	8010
TPHd	O-Pb	TEL	8020
TPH mo	Total Pb	EDB	8240
601	602	Nitrates	8260

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE DATA SHEET

WELL # MW-8

LOCATION: Mobil Oil, San Lorenzo, CA

Job No. 8-019.1

SHEET 1 of 1

APPENDIX B

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

0217 ANALYTICAL

Hydro Environmental	Client Proj. ID: Mobil SS#10-LIX Prj#8-019	Sampled: 02/17/95
2363 Mariners Square Drive	Sample Descript: MW-2	Received: 02/18/95
Suite 243	Matrix: LIQUID	
Alameda, CA 94501	Analysis Method: 8015Mod/8020	Analyzed: 02/21/95
Attention: Scott Kellstedt	Lab Number: 9502C05-01	Reported: 02/22/95

QC Batch Number: GC022195BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	98

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

SEQUOIA ANALYTICAL - ELAP #1210

Todd Olive
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Hydro Environmental	Client Proj. ID: Mobil SS#10-LIX Prj#8-019	Sampled: 02/17/95
2363 Mariners Square Drive	Sample Descript: MW-5	Received: 02/18/95
Suite 243	Matrix: LIQUID	
Alameda, CA 94501	Analysis Method: 8015Mod/8020	Analyzed: 02/21/95
Attention: Scott Kellstedt	Lab Number: 9502C05-02	Reported: 02/22/95

QC Batch Number: GC022195BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Todd Olive
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Hydro Environmental	Client Proj. ID: Mobil SS#10-LIX Prj#8-019	Sampled: 02/17/95
2363 Mariners Square Drive	Sample Descript: MW-6	Received: 02/18/95
Suite 243	Matrix: LIQUID	
Alameda, CA 94501	Analysis Method: 8015Mod/8020	Analyzed: 02/21/95
Attention: Scott Kellstedt	Lab Number: 9502C05-03	Reported: 02/22/95

QC Batch Number: GC022195BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	91

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

SEQUOIA ANALYTICAL - ELAP #1210

Todd Olive
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Hydro Environmental	Client Proj. ID: Mobil SS#10-LIX Prj#8-019	Sampled: 02/17/95
2363 Mariners Square Drive	Sample Descript: MW-7	Received: 02/18/95
Suite 243	Matrix: LIQUID	
Alameda, CA 94501	Analysis Method: 8015Mod/8020	Analyzed: 02/21/95
Attention: Scott Kellstedt	Lab Number: 9502C05-04	Reported: 02/22/95

QC Batch Number: GC022195BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**71**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	**0.50**	**4.3**
Xylenes (Total)	**0.50**	**2.2**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Todd Olive
Project Manager

Sequoia Analytical

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

Hydro Environmental	Client Proj. ID: Mobil SS#10-LIX Prj#8-019	Sampled: 02/17/95
2363 Mariners Square Drive	Sample Descript: MW-8	Received: 02/18/95
Suite 243	Matrix: LIQUID	
Alameda, CA 94501	Analysis Method: 8015Mod/8020	Analyzed: 02/21/95
Attention: Scott Kellstedt	Lab Number: 9502C05-05	Reported: 02/22/95

QC Batch Number: GC022195BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Todd Olive
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Hydro Environmental
2363 Mariner Square Dr., Ste 243
Alameda, CA 94501
Attention: Scott Kellstedt

Client Project ID: Mobil SS#10-LIX Project #8-019
Matrix: Liquid
Work Order #: 9502C05 -01

Reported: Feb 22, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022195BTEX02A	GC022195BTEX02A	GC022195BTEX02A	GC022195BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J.Minkel	J.Minkel	J.Minkel	J.Minkel
MS/MSD #:	G9502656-03C	G9502656-03C	G9502656-03C	G9502656-03C
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/21/95	2/21/95	2/21/95	2/21/95
Analyzed Date:	2/21/95	2/21/95	2/21/95	2/21/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	10	10	10	30
MSD % Recov.:	100	100	100	100
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Todd Olive
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Mobil Chain of Custody

SEQUOIA ANALYTICAL

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

Consulting Firm Name: HYDRO ENVIRONMENTAL TECH	Site SS #: 10-LIX
Address: 2363 MARINER SQ DR, ALAMEDA, CA	Mobil Site Address: 15884 HESPERIAN
City: ALAMEDA State: CA Zip Code: 94501	Mobil Engineer: STEVE PAO
Telephone: (510) 521-2684 FAX #: (510) 521-3010	Consultant Project #: 8-019
Project Contact: S KEUSTEDT Sampled by: F MARONI	Sequoia's Work Order Release #:

Phase of Work:
- ☐ A. Emrg. Response
- ☐ B. Site Assessment
- ☐ C. Remediation
- ☐ D. Monitoring
- ☒ E. OGC/Claims

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

9502C05

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2					Comments
1. MW-2	2/17/95 11:30	H2O	3	-01 (A-C)	X								
2. MW-5				-02 (A-C)	X								
3. MW-6				-03 (A-C)	X								
4. MW-7				-04 (A-C)	X								
5. MW-8				-05 (A-C)	X								
6.													
7.													
8.													
9.													
10.													

Relinquished By: FRANCES MARONI	Date: 2/18/95	Time: 2:00 PM	Received By:	Date: 2-18-95	Time: 11:21
Relinquished By:	Date: 2-18-95	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 2/18/95	Time: 1204

Method of Shipment _____

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