



*Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering*

**QUARTERLY  
GROUNDWATER SAMPLING REPORT**

(sampled June 28, 1995)

**BERNITA LESKOWSKI PROPERTY  
1701 Webster Street  
Alameda, CA**

July 6, 1995

61 2 19 6 1995  
1  
1701 Webster Street  
Alameda, CA

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## I. INTRODUCTION

The subject site is the Bernita Leskowski property located at 1701 Webster Street in Alameda, California. The location of the site is shown on Figure 1 (site location map).

On May 2 and 3, 1989, one 500-gallon and two 550-gallon underground storage tanks were removed from the site. Petroleum hydrocarbon contamination was detected in soil samples collected from the tank excavation and the excavated soil pile. Due to the locations of nearby structures and utilities, some petroleum-contaminated soil was left in place. Following the underground storage tank removals, Blymyer Engineers installed three shallow groundwater monitoring wells and subsequently sampled the wells on November 9, 1989. The laboratory results indicated the presence of Gasoline at concentrations of up to 360  $\mu\text{g/L}$  (ppb) and Benzene at "trace" concentrations of up to 0.71  $\mu\text{g/L}$  (ppb).

On June 28, 1995, all three shallow groundwater monitoring wells were sampled by Hageman-Aguiar, Inc., as a part of the continued quarterly shallow groundwater sampling at the site.



FIGURE 1.  
Site Location Map.

## II. FIELD WORK

### Monitoring Well Sampling

On June 28, 1995, groundwater samples were collected from the three monitoring wells MW-1, MW-2 and MW-3. The locations of the monitoring wells are shown on Figure 2 (site map).

Prior to groundwater sampling, each well was purged by pumping several casing volumes of water using a stainless steel air-lift pump. Field conductivity, temperature, and pH meters were present on-site during the monitoring well sampling. As the purging process proceeded, the three parameters were monitored. Purging continued until readings appeared to have reasonably stabilized. After the water level in the well had attained 80% or more of the original static water level, a groundwater sample was collected using a clean teflon bailer. The water sample was placed inside appropriate 40 mL VOA vials free of any headspace. The samples were immediately placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the work day.

At the time each monitoring well was sampled, the following information was recorded in the field: 1) depth-to-water prior to purging, using an electrical well sounding tape, 2) identification of any floating product, sheen, or odor prior to purging, using a clear teflon bailer, 3) sample pH, 4) sample temperature, and 5) specific conductance of the sample.

Copies of the well sampling logs are included as Attachment A.

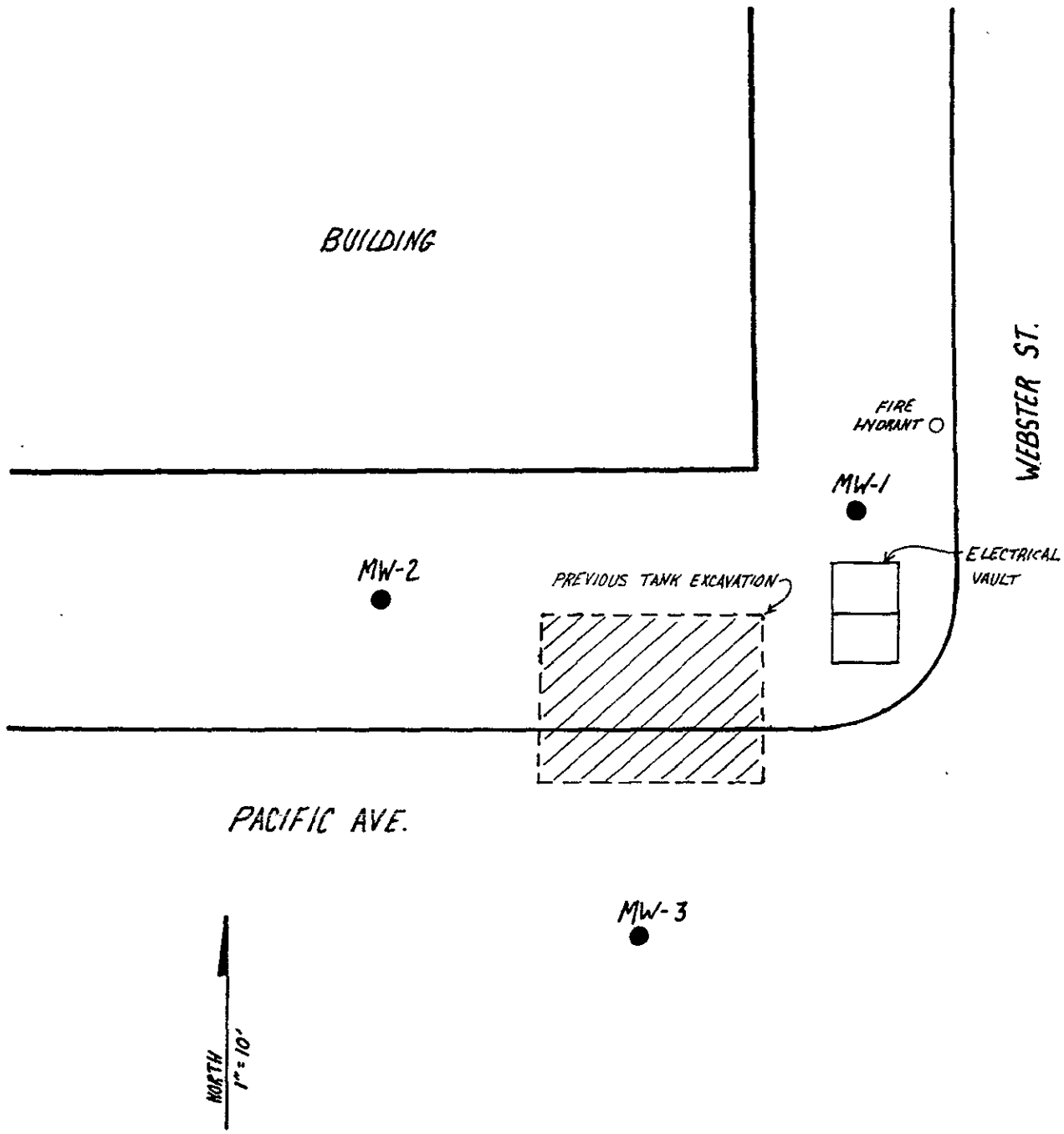


FIGURE 2.  
Site Map.

### Wastewater Generation

All water removed from the wells during purging is drummed and stored on-site until the results of the laboratory results were obtained. Based upon these results, the water should be sewerred (if possible) as a non-hazardous liquid waste in accordance with local sewerred agency permit requirements, or else the wastewater should be transported under proper manifest to an appropriate TSD facility for treatment and disposal. The ultimate disposition of the wastewater is the responsibility of the property owner (waste generator), and is beyond the scope of work as described in this report.

### III. RESULTS OF WATER LEVEL MEASUREMENTS

#### Shallow Groundwater Flow Direction

Shallow water table elevations were measured on June 28, 1995. These measurements are shown in Table 1. Figure 3 presents a contour map for the shallow groundwater table beneath the site. As shown in this figure, the data from the three monitoring wells indicate that the shallow groundwater flow was in the southwesterly direction during this most recent sampling event.

#### Shallow Water Table Hydraulic Gradient

Figure 3 presents the contour map for the shallow groundwater table beneath the site. As shown in this figure, the shallow groundwater table beneath the site appears to be relatively flat, with a calculated hydraulic gradient of  $dH/dL = 0.2'/27.0' = 0.0074$ .

#### Historical Water Level Measurements

Table 2 presents the results of all water level measurements collected between June 17, 1993, and the present time.



**TABLE 1.**

**Shallow Water Table Elevations  
June 28, 1995**

<b>Well</b>	<b>Top of Casing Elevation (feet)</b>	<b>Depth to Water (feet)</b>	<b>Water Table Elevation (feet)</b>
<b>MW-1</b>	15.23	5.98	9.25
<b>MW-2</b>	14.96	5.89	9.07
<b>MW-3</b>	15.05	6.01	9.04

Based upon National Geodetic Survey Monument WEB PAC,  
located at NE corner Webster Street and Pacific Street  
Elev = 14.055 feet MSL (May 1990)

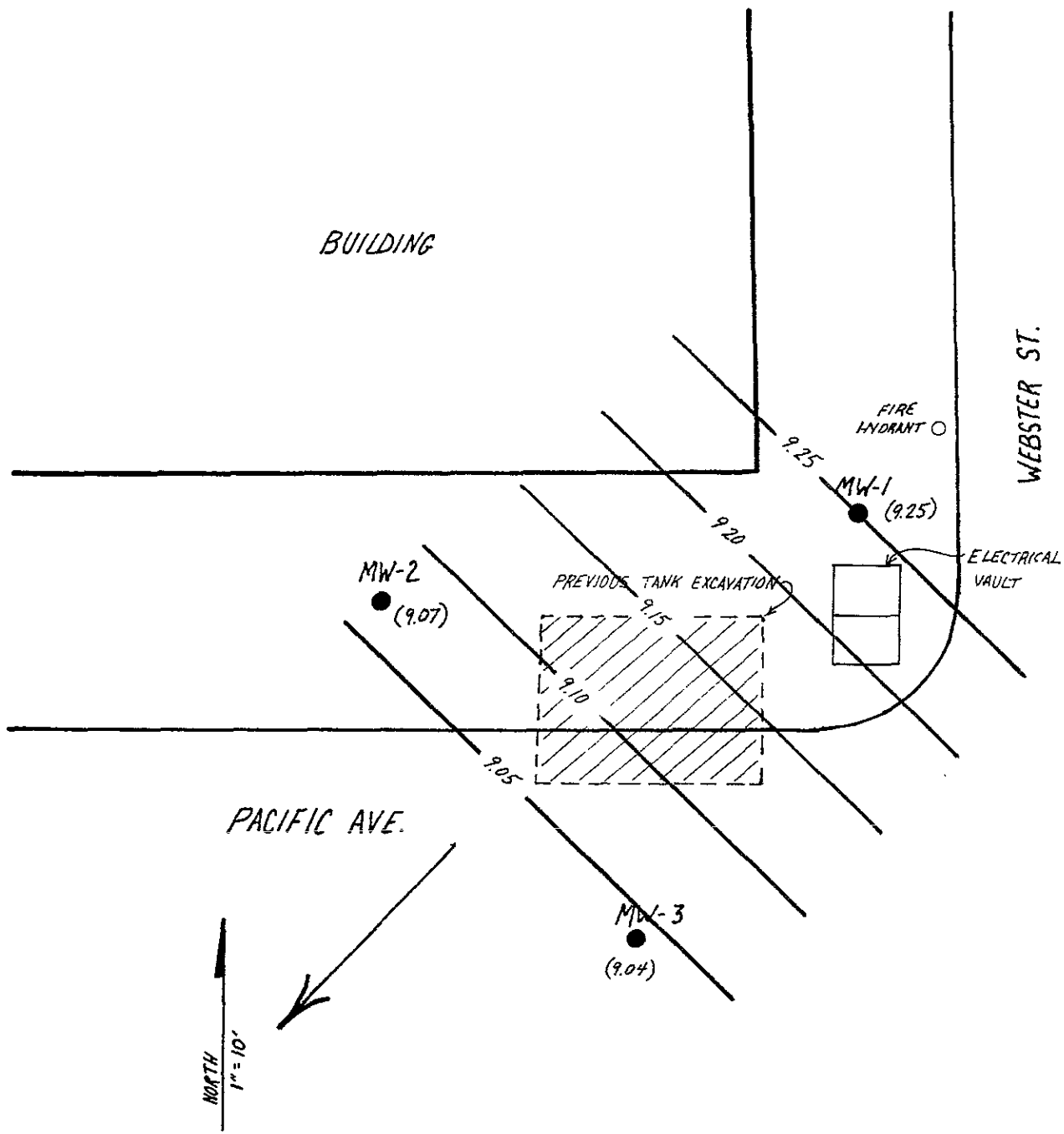


FIGURE 3. Shallow Groundwater Table Contour Map, measured June 28, 1995.

**TABLE 2.**  
**Historical Water Table Elevations**  
**( feet )**

Well	Date of Measurement								
	6-17-93	9-23-93	12-28-93	4-19-94	8-16-94	11-18-94	3-16-95	6-28-95	
MW-1	9.11	8.24	8.18	8.60	8.27	8.59	10.03	9.25	
MW-2	8.84	7.92	7.84	8.39	7.96	8.24	9.89	9.07	
MW-3	8.94	8.04	7.95	8.58	8.07	8.30	9.86	9.04	
Flow Direction	W	W	W	NW	W	SW	SW	SW	
Hydraulic Gradient	0.0091	0.011	0.011	0.0084	0.0098	0.0123	0.0058	0.0074	

#### IV. SHALLOW GROUNDWATER SAMPLING RESULTS

##### Laboratory Analysis

All analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures (Priority Environmental Labs, Milpitas, CA).

All Groundwater samples were analyzed for 1) Total Petroleum Hydrocarbons as Diesel (EPA method 8015), 2) Total Petroleum Hydrocarbons as Gasoline (EPA method 8015), and 3) Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA method 602).

##### Results of Laboratory Analysis

Table 3 presents the results of the laboratory analysis of the groundwater samples collected from the monitoring wells. For this most recent round of quarterly sampling, no detectable concentrations of either Gasoline, Benzene, Toluene, Ethylbenzene, or Total Xylenes were found in any of the shallow groundwater samples collected from wells MW-1, MW-2 and MW-3.

A copy of the laboratory certificate for the water sample analyses are included in Attachment B.

TABLE 3.

Shallow Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	TPH as Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
MW-1	11-09-89	360	—	0.71	ND	0.81	1.4
	06-17-93	ND	53	ND	ND	ND	ND
	09-23-93	ND	ND	ND	ND	ND	ND
	12-28-93	ND	ND	ND	ND	ND	ND
	04-19-94	190	ND	5.6	5.1	4.2	13
	08-16-94	ND	ND	ND	ND	ND	ND
	11-18-94	ND	(*)	ND	ND	ND	ND
	03-16-95	ND	(*)	ND	ND	ND	ND
	06-28-95	ND	(*)	ND	ND	ND	ND
MW-2	11-09-89	71	—	ND	0.85	ND	ND
	06-17-93	ND	ND	ND	ND	ND	ND
	09-23-93	ND	ND	ND	ND	ND	ND
	12-28-93	92	ND	0.7	1.1	1.7	5.4
	04-19-94	<del>120</del> 120	ND	2.2	1.8	1.1	8.7
	08-16-94	ND	ND	ND	ND	ND	ND
	11-18-94	ND	(*)	ND	ND	ND	ND
	03-16-95	ND	(*)	ND	ND	ND	ND
	06-28-95	ND	(*)	ND	ND	ND	ND
Detection Limit		50	50	0.5	0.5	0.5	0.5

ND = not detected

(\*) = Requirement for TPH as Diesel Discontinued - Alameda County Department of Environmental Health (8/16/94)

**TABLE 3. (Continued)**

**Shallow Groundwater Sampling Results**

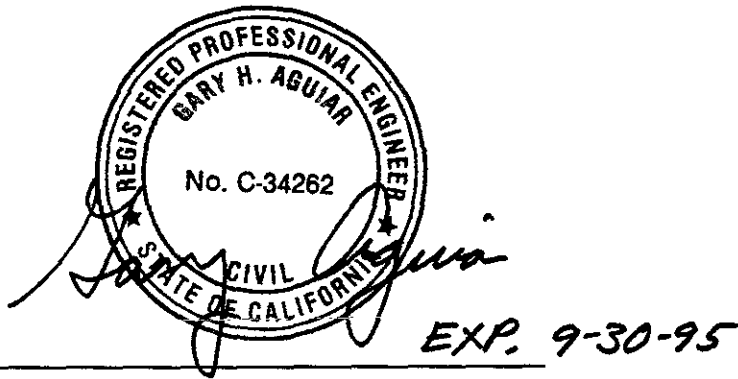
<b>Well</b>	<b>Date</b>	<b>TPH as Gasoline (ug/L)</b>	<b>TPH as Diesel (ug/L)</b>	<b>Benzene (ug/L)</b>	<b>Toluene (ug/L)</b>	<b>Ethyl-benzene (ug/L)</b>	<b>Total Xylenes (ug/L)</b>
<b>MW-3</b>	11-09-89	<b>320</b>	---	<b>0.58</b>	ND	<b>1.2</b>	<b>2.1</b>
	06-17-93	ND	ND	ND	ND	ND	ND
	09-23-93	ND	ND	ND	ND	ND	ND
	12-28-93	ND	ND	ND	ND	ND	ND
	04-19-94	<b>380</b>	ND	<b>3.0</b>	<b>4.3</b>	<b>4.7</b>	<b>17</b>
	08-16-94	ND	ND	ND	ND	ND	ND
	11-18-94	ND	(*)	ND	ND	ND	ND
	03-16-95	ND	(*)	ND	ND	ND	ND
	06-28-95	ND	(*)	ND	ND	ND	ND
<b>Detection Limit</b>		<b>50</b>	<b>50</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>

ND = not detected

(\*) = Requirement for TPH as Diesel Discontinued - Alameda County Department of Environmental Health (8/16/94)

QUARTERLY GROUNDWATER SAMPLING REPORT  
BERNITA LESKOWSKI PROPERTY  
1701 Webster Street, Alameda, CA

July 6, 1995



Gary Aguiar

RCE 34262

*Gerard F. Aarons 7-6-95*  
Gerard F. Aarons Geologist

**ATTACHMENT A**

**WELL SAMPLING LOGS**



**WELL SAMPLING LOG**

Project/No. 1701 WEBSTER STREET Page 1 of 1  
 Site Location ALAMEDA Date 6/28/95  
 Well No. MW-1 Time Began 1300  
 Weather CLEAR - MID 80'S Completed \_\_\_\_\_

**EVACUATION DATA**

Description of Measuring Point (MP) WELL BOX @ GRADE  
 Total Sounded Depth of Well Below MP 18.60  
 - Depth to Water Below MP 5.98 Diameter of Casing 4"  
 = Water Column in Well 12.62  
 Gallons in Casing 8 + Annular Space (x4) = Total Gallons 32  
 (30% porosity)  
 Gallons Pumped Prior to Sampling 45  
 Evacuation Method AIRLIFT PUMP

**SAMPLING DATA / FIELD PARAMETERS**

Inspection for Free Product: NONE DETECTED / CLEAR  
 (thickness to 0.1 inch, if any)

	<u>1300</u>	<u>1308</u>	<u>1329</u>	<u>1344</u>	
Gals Removed	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>45</u>
Temperature	<u>68.1</u>	<u>67.6</u>	<u>67.7</u>	<u>67.1</u>	<u>66.7</u>
Conductivity	<u>820</u>	<u>800</u>	<u>740</u>	<u>690</u>	<u>660</u>
pH	<u>6.30</u>	<u>6.33</u>	<u>6.34</u>	<u>6.36</u>	<u>6.36</u>
Color / Odor	<u>DK BRN</u> <u>No ODOR</u>	<u>=</u>	<u>=</u> <u>Slight organic</u> <u>ODOR</u>	<u>=</u>	<u>=</u> <u>Slight organic</u> <u>odor</u>
Turbidity	<u>Mod/High</u>	<u>=</u>	<u>=</u>	<u>=</u>	<u>=</u>

Comments: \_\_\_\_\_

**WELL SAMPLING LOG**

Project/No. 1701 WEBSTER STREET Page 1 of 1  
 Site Location ALAMEDA, CA Date 6/28/95  
 Well No. MW-2 Time Began 1219  
 Weather CLEAR MID 80'S Completed \_\_\_\_\_

**EVACUATION DATA**

Description of Measuring Point (MP) WELL BOX @ GRADE  
 Total Sounded Depth of Well Below MP 19.54  
 - Depth to Water Below MP 5.89 Diameter of Casing 4"  
 = Water Column in Well 13.65  
 Gallons in Casing 9 + Annular Space (X4) = Total Gallons 36  
(30% porosity)  
 Gallons Pumped Prior to Sampling 45  
 Evacuation Method PVC BAILER

**SAMPLING DATA / FIELD PARAMETERS**

Inspection for Free Product: NONE DETECTED, CLEAR  
(thickness to 0.1 inch, if any)

Time	<u>1219</u>	<u>1223</u>	<u>1227</u>	<u>1232</u>	<u>1235</u>
Gals Removed	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>45</u>
Temperature	<u>73.7</u>	<u>70.7</u>	<u>69.2</u>	<u>68.8</u>	<u>68.5</u>
Conductivity	<u>568</u>	<u>500</u>	<u>470</u>	<u>470</u>	<u>460</u>
pH	<u>6.21</u>	<u>6.40</u>	<u>6.55</u>	<u>6.35</u>	<u>6.40</u>
Color / Odor	<u>CLEAR No odor</u>	<u>=</u>	<u>=</u>	<u>=</u>	<u>=</u>
Turbidity	<u>LOW</u>	<u>=</u>	<u>=</u>	<u>=</u>	<u>=</u>

Comments: \_\_\_\_\_

**WELL SAMPLING LOG**

Project/No. 1701 WEBSTER STREET Page 1 of 1  
 Site Location ALAMEDA Date 6/28/95  
 Well No. MW-3 Time Began 1256  
 Weather CLEAR MID 80'S Completed

**EVACUATION DATA**

Description of Measuring Point (MP) WELL BOX @ GRADE  
 Total Sounded Depth of Well Below MP 19.61  
 - Depth to Water Below MP 6.01 Diameter of Casing 4"  
 = Water Column in Well 13.60  
 Gallons in Casing 9 + Annular Space (19) = Total Gallons 36  
(30% porosity)  
 Gallons Pumped Prior to Sampling 45  
 Evacuation Method AIRLIFT PUMP

**SAMPLING DATA / FIELD PARAMETERS**

Inspection for Free Product: NONE DETECTED, CLEAR SEWER GREASE ON  
(thickness to 0.1 inch, if any) CAP AND INSIDE CASING

Time	<u>1256</u>	<u>1303</u>	<u>1310</u>	<u>1322</u>	<u>1328</u>
Gals Removed	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>45</u>
Temperature	<u>68.0</u>	<u>67.7</u>	<u>67.3</u>	<u>66.9</u>	<u>66.9</u>
Conductivity	<u>640</u>	<u>610</u>	<u>600</u>	<u>610</u>	<u>590</u>
pH	<u>6.23</u>	<u>6.41</u>	<u>6.35</u>	<u>6.29</u>	<u>6.28</u>
Color / Odor	<u>BROWN SILTY</u> <u>NO ODOR</u>	<u>=</u>	<u>=</u>	<u>SLIGHT SWEET ODOR</u>	<u>=</u>
Turbidity	<u>MOD/HIGH</u>	<u>=</u>	<u>MOD</u>	<u>LOW/MOD</u>	<u>LOW</u>

Comments: GREASE LIKE MATERIAL around top of PVC

**ATTACHMENT B**

**ANALYTICAL RESULTS: GROUNDWATER**



# PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

June 30, 1995

PEL # 9506099

HAGEMAN - AGUIAR, INC.

Attn: Mark Hainsworth

Re: Three water samples for Gasoline/BTEX analysis.

Project name: Bernita Leskowski Property

Project location: 1701 Webster St., - Alameda, CA.

Date sampled: June 28, 1995

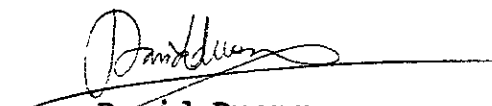
Date submitted: June 29, 1995

Date extracted: June 29-30, 1995

Date analyzed: June 29-30, 1995

## RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)
MW-1	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	N.D.	N.D.	N.D.	N.D.
MW-3	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	84.4%	84.0%	85.1%	90.5%	84.1%
Detection limit	50	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	602	602	602	602

  
David Duong  
Laboratory Director

