



HAGEMAN-AGUIAR, INC.

Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

March 29, 1993

**REPORT OF
QUARTERLY GROUNDWATER SAMPLING**

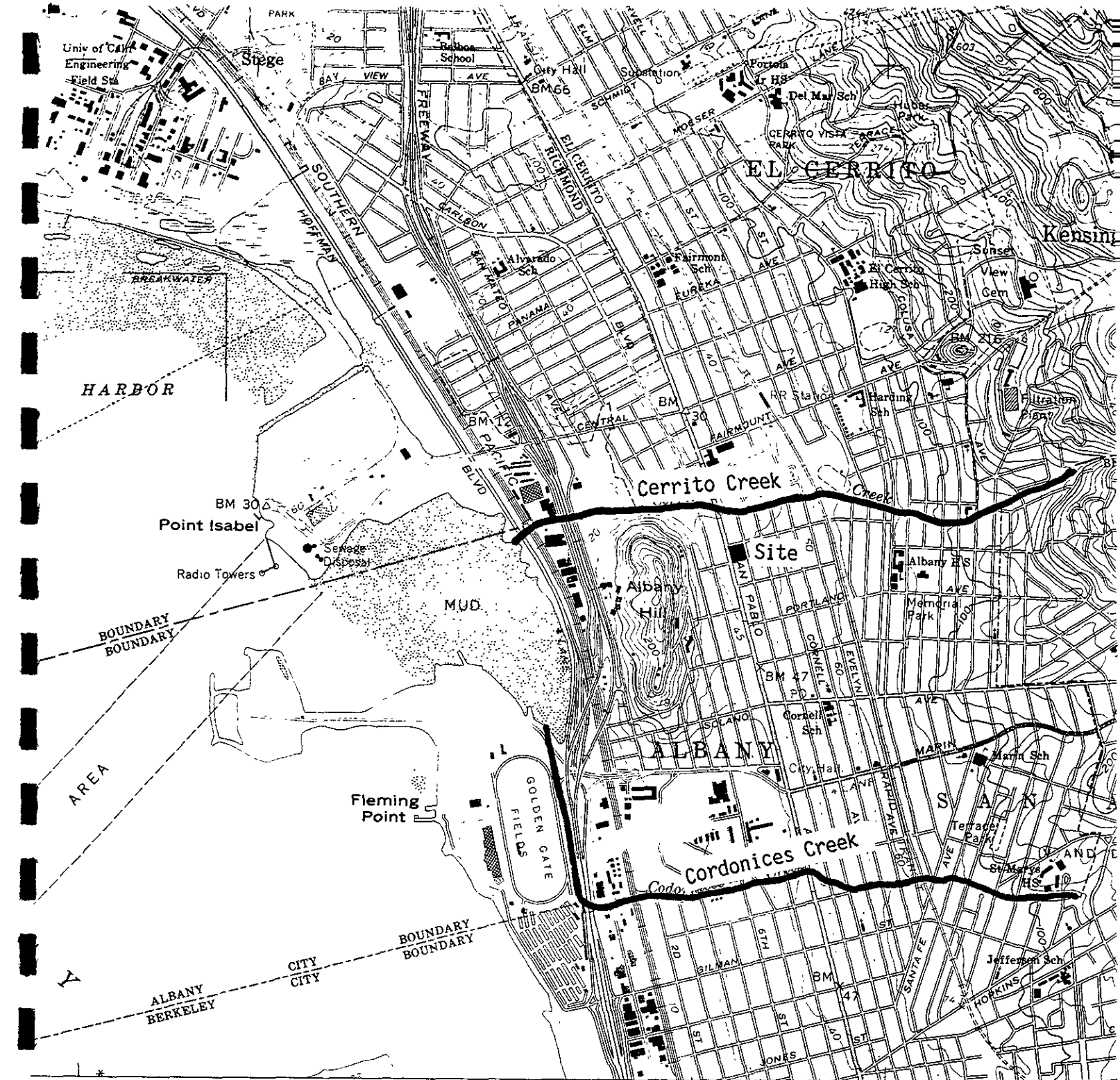
**GRANHOLT SHEET METAL
501 San Pablo Avenue
Albany, CA**

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On March 22, 1993, the one on-site monitoring well was sampled for the laboratory analysis for dissolved petroleum constituents. The location of the site is shown in Figure 1 (site location map).

Monitoring Well Sampling and Laboratory Analysis

On March 22, 1993, the one on-site well was purged, and groundwater samples were subsequently collected. The location of the monitoring well is shown in Figure 2 (site map). Prior to groundwater sampling, the well was purged by bailing several casing volumes of water. 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



SCALE 1:24 000

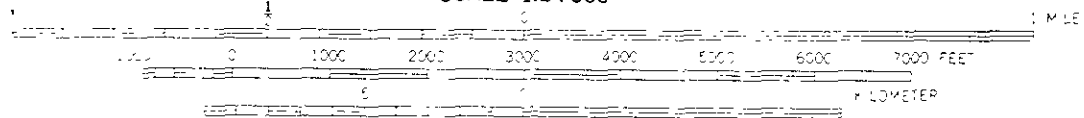


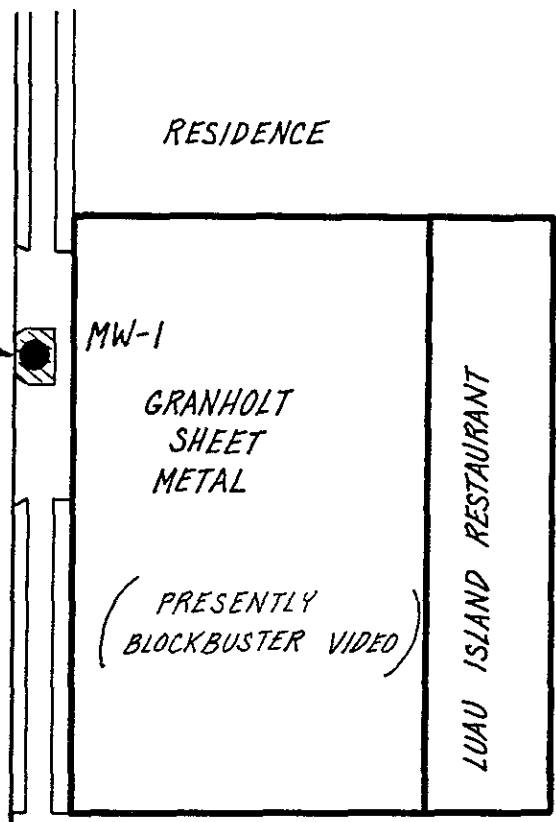
Figure 1.
Site Location Map.

TIRE CENTER



FORMER
TANK
LOCATION

BRIGHTON AVENUE



SAN PABLO AVENUE



FIGURE 2.
Site Map.

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 ice, then transported under chain-of-custody to the laboratory at the end of the work day.

At the time the 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. A copy of the well sampling log is included as Attachment A.

All analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures. All groundwater samples were analyzed for Total Petroleum Hydrocarbons as Gasoline, and Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX).

Water Level Measurement.

The shallow groundwater elevation in MW-1 was measured as 4.58 feet below ground surface on March 22, 1993.

Laboratory Results.

Table 1 presents the results of the laboratory analysis for TPH and BTEX of the groundwater samples collected from monitoring well MW-1.

For this round of sampling, dissolved Gasoline was detected in the one shallow groundwater sample at a concentration of 3,900 $\mu\text{g/L}$ (ppb). In addition, dissolved Benzene, Toluene, Ethylbenzene, and Total Xylenes were detected at concentrations of 8.2 $\mu\text{g/L}$ (ppb), 8.5 $\mu\text{g/L}$ (ppb), 17 $\mu\text{g/L}$ (ppb) and 42 $\mu\text{g/L}$ (ppb), respectively.

A copy of the laboratory certificate for the water sample analyses is included as Attachment B.

Table 1.

Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
MW-1	06-12-90	770	3.0	ND	3.0	4.0
	02-01-91	740	92	7.0	2.7	3.2
	06-03-91	ND	ND	ND	ND	ND
	12-17-91	560	8.3	11	8.1	61
	03-06-92	700	6.0	9.9	22	40
	05-28-92	1,000	4.2	5.1	15	30
	08-31-92	1,600	13	12	27	57
	12-07-92	4,900	12	16	35	130
	03-22-93	3,900	8.2	8.5	17	42
Detection Limit		50	0.5	0.5	0.5	0.5

ND = not detected

ATTACHMENT A

WELL SAMPLING LOG

WELL SAMPLING LOG

Project/No. SPANKLET
SAN PABLO AVE
Site Location RICHMOND
Well No. MW 1
Weather CLEAR / 60°F

Page 1 of 1
Date 3-22-93
Time Began 0945
Completed 1010

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE
Total Sounded Depth of Well Below MP 11.80
- Depth to Water Below MP 4.58 Diameter of Casing 2"
= Water Column in Well 7.22
Gallons in Casing 1.2 + Annular Space 4.6 = Total Gallons 5.8
(30% porosity) (x4 = 23)
Gallons Pumped Prior to Sampling 23
Evacuation Method TEFLON BAUER

SAMPLING DATA / FIELD PARAMETERS

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

	<u>0945</u>	<u>0952</u>	<u>1000</u>	<u>1006</u>
Time				
Gals Removed	<u>0</u>	<u>8</u>	<u>16</u>	<u>23</u>
Temperature	<u>17.6</u>	<u>17.3</u>	<u>19.8</u>	<u>20.2</u>
Conductivity	<u>300</u>	<u>450</u>	<u>450</u>	<u>400</u>
pH	<u>7.8</u>	<u>7.7</u>	<u>7.3</u>	<u>7.0</u>
Color / Odor	<u>CLR/OD</u>	<u>CLR/HC</u>	<u>CLR/HC</u>	<u>CLR/HC</u>
Turbidity	<u>LOW</u>	<u>LOW</u>	<u>LOW</u>	<u>LOW</u>

Comments: NONE

ATTACHMENT B

ANALYTICAL RESULTS: GROUNDWATER



PRIORITY ENVIRONMENTAL LABS

Regulatory Environmental Analytical Laboratory

March 24, 1993

PEL # 9303055

HAGEMAN - AGUIAR, INC.

Attn: Jeffrey Roth

Re: One water sample for Gasoline/BTEX analysis.

Project name: Granholt

Project location: San Pablo Ave., - Richmond, CA.

Date sampled: Mar 22, 1993

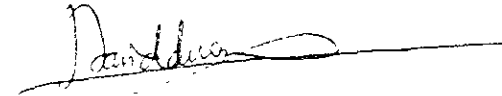
Date submitted: Mar 23, 1993

Date extracted: Mar 23, 1993

Date analyzed: Mar 23, 1993

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
MW 1	3900	8.2	8.5	17	42
Blank	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	86.6%	84.2%	85.1%	92.4%	97.3%
Detection limit	50	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	602	602	602	602


 David Duong
 Laboratory Director



HAGEMAN-AGUIAR INC

PEL # 9303055

INV # 23471

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS <i>GRANDELT SAN PABLO AVE. RICHMOND, CA</i>					SAMPLER: (Signature) <i>[Signature]</i>		ANALYSIS REQUESTED <i>TPH GAS TEXE</i>						
					HAGEMAN - AGUIAR, INC. 3732 Mt. Diablo Blvd., Suite 372 Lafayette, CA 94549 (415)284-1661 (415)284-1664 (FAX)								
CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION						REMARKS		
<i>WW 1</i>	<i>3-23-93</i>	<i>1010</i>		<i>X</i>	<i>MONITORING WELL #1</i>	<i>X</i>	<i>X</i>					<i>NORM TAT</i>	
RELINQUISHED BY (Signature) <i>[Signature]</i>					DATE <i>3-23-93</i>	RECEIVED BY: (Signature)					DATE		
					TIME <i>1445</i>						TIME		
RELINQUISHED BY (Signature)					DATE	RECEIVED BY: (Signature)					DATE		
					TIME						TIME		
RELINQUISHED BY (Signature)					DATE	RECEIVED BY: (Signature)					DATE		
					TIME						TIME		
RELINQUISHED BY (Signature)					DATE	RECEIVED FOR LABORATORY BY: (Signature) <i>[Signature]</i>					DATE <i>3/23/93</i>		
					TIME						TIME <i>14:45</i>		