

# HAGEMAN-AGUIAR, INC.

Reviewed 2/10/92  
SCB

Underground Contamination Investigations  
Groundwater Consultants, Environmental Engineering

3732 Mt. Diablo Blvd. Suite 372  
Lafayette, California 94549  
(510) 284-1661  
FAX (510) 284-1664

November 15, 1991

## REPORT OF SEMIANNUAL GROUNDWATER SAMPLING

ADOBE PLAZA  
3098 Castro Valley Blvd  
Castro Valley, CA

9110103 11/15/91

On October 10, 1991, all three on-site monitoring wells were sampled for the laboratory analysis for dissolved petroleum constituents. The location of the site is shown in Figure 1 (site vicinity map). The locations of the monitoring wells are shown in Figure 2 (site map).

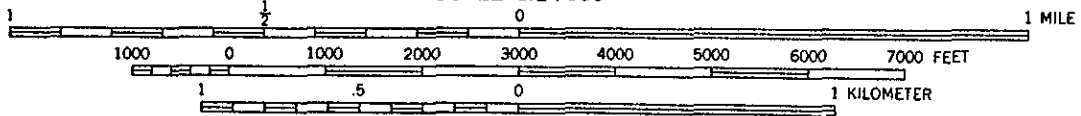
Based upon the letter from Scott Seery, Alameda County Department of Environmental Health, dated September 13, 1991, the sampling frequency for this site has been reduced to semiannually. A copy of this letter is included in Attachment A.

### Monitoring Well Sampling and Laboratory Analysis

On October 10, 1991, groundwater samples were collected from each of the on-site monitoring wells. Prior to groundwater sampling, each well was purged by bailing 3 to 5 casing volumes of water. Field conductivity, temperature, and pH



SCALE 1:24 000



CONTOUR INTERVAL 20 FEET

FIGURE 1. Site Location Map.

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 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 B.

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

All water removed from the wells during the most recent purging and sampling has been drummed and stored on-site until the results of laboratory analyses could be obtained.

### Water Level Measurements.

Shallow water table elevations were measured on October 10, 1991. 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 these monitoring wells indicate that the shallow groundwater flow beneath the site continues to be in the southeasterly direction.

### Results of Quarterly Monitoring.

Table 2 presents the results of the laboratory analysis for Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, and Total Xylenes of the shallow groundwater samples collected from the monitoring wells. Wells MW-1, and MW-3 continue to show no detectable concentrations of any petroleum constituents.

For this round of sampling, the groundwater sample collected from well MW-2 indicated the presence of Gasoline and Benzene at concentrations of 160 ug/L (ppb) and 13 ug/L (ppb), respectively.

A copy of the laboratory certificate for the water sample analysis is included as Attachment C.

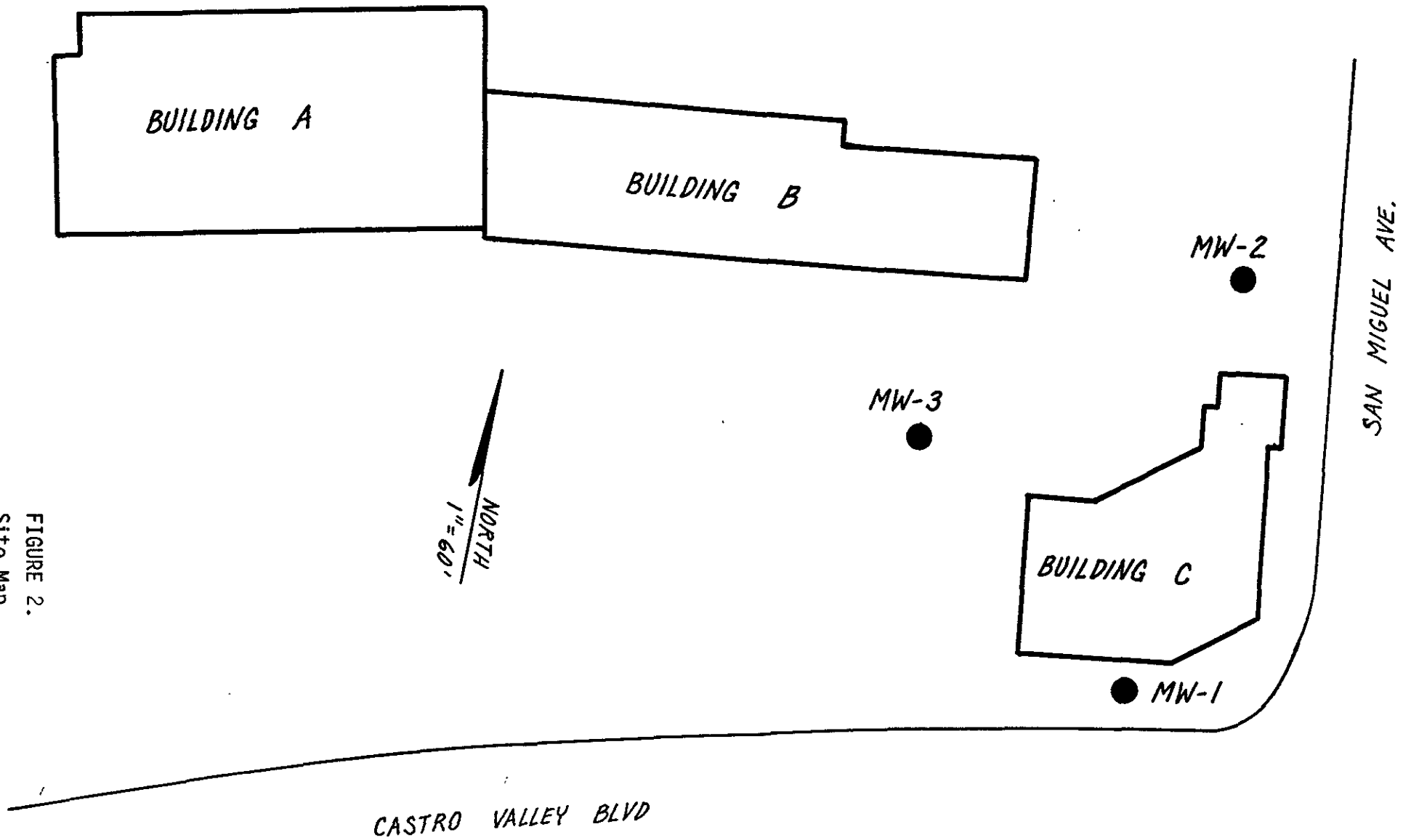


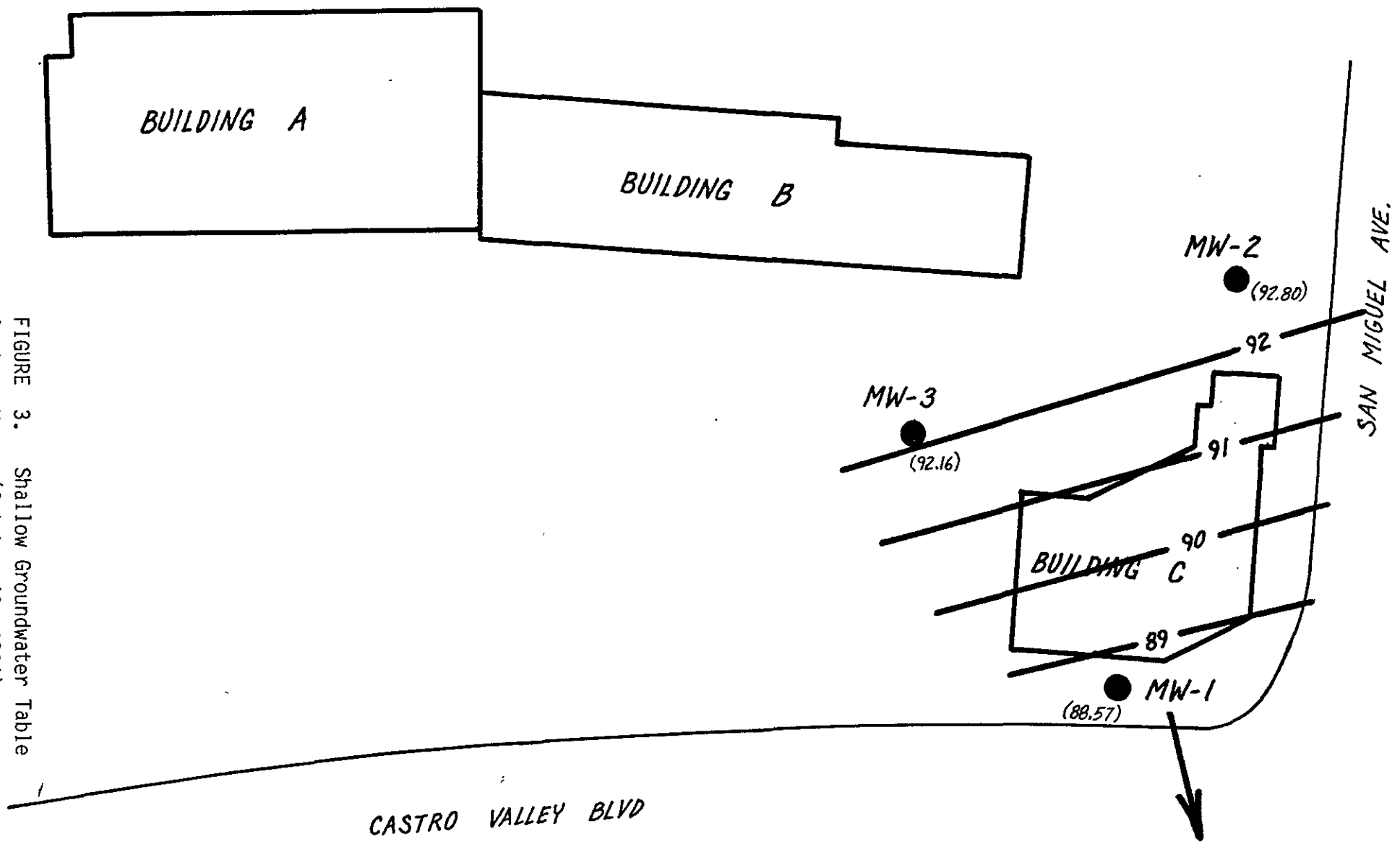
FIGURE 2.  
Site Map.

**TABLE 1.**

**Shallow Water Table Elevations  
October 10, 1991**

<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>	99.73	11.16	88.57
<b>MW-2</b>	100.00	7.20	92.80
<b>MW-3</b>	99.76	7.60	92.16

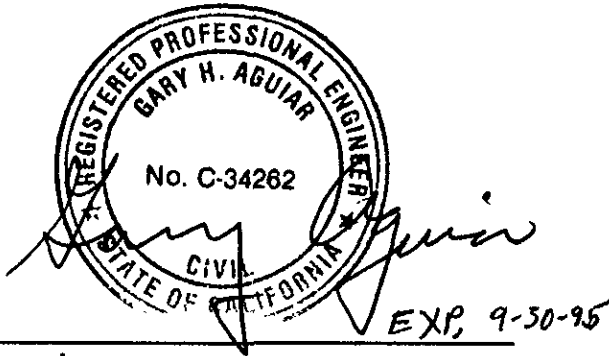
FIGURE 3. Shallow Groundwater Table  
Contour Map. (October 10, 1991)



**TABLE 2.**  
**Shallow Groundwater Sampling Results**

<b>Well</b>	<b>Date</b>	<b>TPH as Gasoline (ug/L)</b>	<b>Benzene (ug/L)</b>	<b>Toluene (ug/L)</b>	<b>Ethyl-benzene (ug/L)</b>	<b>Xylenes (ug/L)</b>
<b>1</b>	08-22-89	ND	0.5	1.2	ND	3.1
	05-24-90	ND	ND	ND	ND	ND
	08-29-90	ND	ND	ND	ND	ND
	11-28-90	ND	ND	ND	ND	ND
	03-08-91	ND	ND	ND	ND	ND
	10-10-91	ND	ND	ND	ND	ND
<b>2</b>	08-22-89	110	5.3	ND	ND	ND
	09-06-89	ND	ND	ND	ND	ND
	05-24-90	ND	ND	ND	ND	ND
	08-29-90	110	ND	0.8	1.1	0.6
	11-28-90	ND	ND	ND	ND	ND
	03-08-91	ND	ND	ND	ND	ND
	10-10-91	160	13	3.2	2.0	18
<b>3</b>	08-22-89	ND	ND	ND	ND	ND
	06-08-90	ND	ND	ND	ND	ND
	08-29-90	ND	ND	ND	ND	ND
	11-28-90	ND	ND	ND	ND	ND
	03-08-91	ND	ND	ND	ND	ND
	10-10-91	ND	ND	ND	ND	ND
<b>Detection Limit</b>		<b>50</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>





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Gary Aguiar

RCE 34262

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Bruce Hageman

**ATTACHMENT A**

**CORRESPONDENCE**

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



DEPARTMENT OF ENVIRONMENTAL HEALTH  
Hazardous Materials Program  
80 Swan Way, Rm. 200  
Oakland, CA 94621  
(415)

September 13, 1991

Mr. Clifton Sherwood  
Adobe Associates  
P.O. Box 2673  
Castro Valley, CA 94546

RE: FREQUENCY OF SAMPLING, ADOBE PLAZA, 3098 CASTRO VALLEY BOULEVARD

Dear Mr. Sherwood:

This letter is in response to your correspondence dated July 23, 1991 in which is requested a reduction of sampling frequency for the three monitoring wells at the referenced site. Following this request, staff reviewed all reports submitted to date which document the progress of the environmental investigation at the site, beginning with the initial September 25, 1989 Hageman-Schank Report of Soil and Groundwater Investigation, through the April 8, 1991 Hageman-Aguilar Quarterly Report, documenting the results of monitoring occurring during the first quarter of 1991.

A summary of this review appears below:

- 1) Boring log for (downgradient) well MW-1 identifies the presence of a horizon (lens ?) of clayey sand between a depth of approximately 7-10 feet below grade (BG). A soil sample collected from this horizon (8'BG) exhibited 1300 ppm of total petroleum hydrocarbons as gasoline (TPH-G). The soil TPH-G concentration was attenuated to 70 ppm in a subsequent sample collected from a clay horizon at a depth of 10 feet BG. It is unclear from the data how continuous the clayey sand horizon is about or off the site.
- 2) Ground water was first encountered during boring advancement approximately 19 feet BG in well MW-1. Measured ground water has stabilized between 9.40 and 9.49 feet BG during the course of the investigation, indicating the monitored aquifer is under confined conditions.
- 3) Detectable concentrations of contaminants have never been found in water sampled from well MW-3. Detectable concentrations of contaminants were found in water collected from MW-1 during the initial round of sampling 8/89 (0.5 ppb benzene, 1.2 ppb toluene, 3.1 ppb xylenes); the last four consecutive sampling events have identified nondetectable (ND) concentrations of contaminants. Detectable concentrations of contaminants were found (110 ppb TPH-G, 5.3 ppb benzene) in upgradient well MW-2 during the initial

Mr. Clifton Sherwood  
RE: Adobe Plaza, 3098 Castro Valley Blvd.  
September 13, 1991  
Page 2 of 2

round of sampling 8/89, and also during sampling 8/90 (110 ppb TPH-G, 0.8 ppb toluene, 1.1 ppb ethylbenzene, and 0.6 ppb xylenes). The initial round of sampling and analysis (8/89) was repeated 9/89 after redevelopment of well MW-2, with ND results. However, the laboratory detection limits for the subsequent sampling were an order-of-magnitude higher for 3 of the 5 species sought.

The conclusions of our review are as follow:

- 1) The areal extent of the clayey sand horizon found at depth 7-10'BG in well boring MW-1 has not been fully defined. This sedimentary horizon exhibited the only elevated levels of hydrocarbon contamination of concern encountered during boring advancement.
- 2) There is a source of contamination which periodically impacts water sampled from well MW-2.
- 3) No contaminants sampled since 8/89 have been at concentrations exceeding or approaching state maximum contaminant levels (MCLs) for drinking water.

These data suggest that sampling frequencies may be reduced to semiannually in wells MW-1 and -2, and to annually in MW-3. This period shall begin with a round of sampling to occur during the 3rd quarter 1991. Summary reports are to be submitted quarterly. After one year of additional sampling data collection, this case will be reviewed for case closure.

Please call me at 510/271-4320 should you have any questions about the content of this letter.

Sincerely,



Scott O. Seery, CHMM  
Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director, Environmental Health  
Edgar Howell, Chief, Hazardous Materials Division  
Gil Jensen, Alameda County District Attorney's Office  
Lester Feldman, RWQCB  
Howard Hatayama, DTSC  
Bob Bohman, Castro Valley Fire Department  
Bruce Hageman, Hageman-Aquiar  
files

# HAGEMAN-AGUIAR, INC.

*Underground Contamination Investigations  
Groundwater Consultants, Environmental Engineering*

3732 Mt. Diablo Blvd. Suite 372  
Lafayette, California 94549  
(415) 284-1661  
FAX (415) 284-1664

April 17, 1991

Scott Seery  
Alameda County Health Agency  
Department of Environmental Health  
80 Swan Way  
Room 200  
Oakland, CA 94621

RE: Quarterly Sampling at Adobe Plaza, 3098 Castro Valley  
Blvd., Castro Valley, CA.

Dear Mr. Seery:

Please find enclosed a copy of the most recent quarterly report for the above-referenced site, dated April 8, 1991.

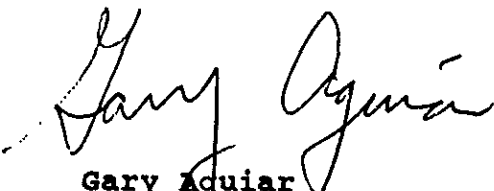
The results of continued quarterly shallow groundwater sampling has indicated that contamination levels have declined to non-detectable concentrations, as would be expected due to the removal of the contamination source (underground tanks). In fact, no detectable concentrations of Benzene have been found in any of the shallow groundwater monitoring wells since August 22, 1989.

Based upon the historical concentrations of petroleum constituents in the shallow groundwater, as shown in Table 2 of the April 8, 1991, quarterly report, we respectfully request that either 1) groundwater monitoring be discontinued and the existing monitoring wells be properly abandoned, or at least 2) the frequency of monitoring be reduced to an annual basis.

Please note that this request is in accordance with the procedures described in the State Water Resources Control Board LUFT Field Manual for a Category 3 site. According to these procedures, "after a history is established for the site showing that contamination levels have been stable or declining during the first year, then a gradual reduction in monitoring requirements can be allowed. Eventually, if pollution continues to be stable or decline, the monitoring requirements may be discontinued."

If you have any questions, or would like to arrange a meeting to discuss these results, please call me at (415)284-1661.

Sincerely,



Gary Aguiar  
Principal Engineer

cc: Lester Feldman, RWQCB  
Cliff Sherwood, Adobe Associates

TABLE 2. Shallow Groundwater Sampling Results.  
Adobe Plaza, Castro Valley

Well	Date	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- Benzene (ug/L)	Xylenes (ug/L)
1	8-22-89	ND	0.5	1.2	ND	3.1
	5-24-90	ND	ND	ND	ND	ND
	8-29-90	ND	ND	ND	ND	ND
	11-28-90	ND	ND	ND	ND	ND
	3-08-91	ND	ND	ND	ND	ND
2	8-22-89	110	5.3	ND	ND	ND
	9-06-89	ND	ND	ND	ND	ND
	5-24-90	ND	ND	ND	ND	ND
	8-29-90	110	ND	0.8	1.1	0.6
	11-28-90	ND	ND	ND	ND	ND
	3-08-91	ND	ND	ND	ND	ND
3	8-22-89	ND	ND	ND	ND	ND
	6-08-90	ND	ND	ND	ND	ND
	8-29-90	ND	ND	ND	ND	ND
	11-28-90	ND	ND	ND	ND	ND
	3-08-91	ND	ND	ND	ND	ND
<b>DETECTION LIMIT (ug/L)</b>		50	0.5	0.5	0.5	0.5

**ATTACHMENT B**

**WELL SAMPLING LOGS**



WELL SAMPLING LOG

Project/No. ADOBE PLAZA Page 1 of 3  
Site Location CASTRO VALLEY, CA Date 10-10-91  
Well No. MW-3  
Weather SUNNY, CLEAR, 90F Time Sampling Began 11:00  
Completed 13:20

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX (AT GRADE)  
Total Sounded Depth of Well Below MP 23.34  
Depth to Water Below MP 7.60 Diameter of Casing 2"  
Water Column in Well 15.74  
Gallons in Well 2.6 Gallons Pumped/Bailed  
Prior to Sampling 10  
Evacuation Method TEFLON BAILER

SAMPLING DATA / FIELD PARAMETERS

Color CLEAR Odor NONE  
Appearance NO SHEEN Temperature 25 °F (°C)  
Specific Conductance (umhos/cm) 1700 pH 7.00  
Sampling Method and Material TEFLON BAILER

FIELD ANALYSES:	Start	Mid	End
Time	<u>11:07</u>	<u>11:15</u>	<u>11:25</u>
Temperature	<u>28°</u>	<u>25°</u>	<u>25°</u>
Conductivity	<u>1875</u>	<u>1700</u>	<u>1700</u>
pH	<u>7.00</u>	<u>7.00</u>	<u>7.00</u>

Sampling Personnel Keith Jay

WELL SAMPLING LOG

Project/No. ADOBE PLAZA Page 2 of 3  
Site Location CASTRO VALLEY, CA Date 10-10-91  
Well No. MW-1  
Weather SUNNY, CLEAR, 90°F Time Sampling Began 11:40  
Completed 13:30

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX (AT GRADE)  
Total Sounded Depth of Well Below MP 23.20  
Depth to Water Below MP 11.16 Diameter of Casing 2'  
Water Column in Well 12.04  
Gallons in Well 2.01 Gallons Pumped/Bailed  
Prior to Sampling 7.0  
Evacuation Method TEFLON BAILER

SAMPLING DATA / FIELD PARAMETERS

Color CLEAR Odor SEPTIC  
Appearance NO SHEEN Temperature 24 °F 20 °C  
Specific Conductance (umhos/cm) 875 pH 7.30  
Sampling Method and Material TEFLON BAILER

FIELD ANALYSES:	Start	Mid	End
Time	<u>11:50</u>	<u>12:02</u>	<u>12:15</u>
Temperature	<u>27</u>	<u>24</u>	<u>24</u>
Conductivity	<u>950</u>	<u>875</u>	<u>875</u>
pH	<u>7.25</u>	<u>7.30</u>	<u>7.30</u>

Sampling Personnel Keith Jay

WELL SAMPLING LOG

Project/No. ADOBE PLAZA Page 3 of 3

Site Location CASTRO VALLEY, CA Date 10-10-91

Well No. MW-2

Weather SUNNY, CLEAR, 90° F Time Sampling Began 12:30  
Completed 13:40

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX (AT GRADE)

Total Sounded Depth of Well Below MP 18.54

Depth to Water Below MP 7.20 Diameter of Casing 2"

Water Column in Well 11.34

Gallons in Well 1.9 Gallons Pumped/Bailed Prior to Sampling 7.5

Evacuation Method TEFLON BAILER

SAMPLING DATA / FIELD PARAMETERS

Color CLEAR Odor SEPTIC

Appearance NO SHEEN Temperature 25° F (°C)

Specific Conductance (umhos/cm) 1230 pH 7.05

Sampling Method and Material TEFLON BAILER

FIELD ANALYSES:	Start	Mid	End
Time	<u>12:40</u>	<u>12:55</u>	<u>13:05</u>
Temperature	<u>27°</u>	<u>25°</u>	<u>25°</u>
Conductivity	<u>1400</u>	<u>1220</u>	<u>1230</u>
pH	<u>7.05</u>	<u>7.05</u>	<u>7.05</u>

Sampling Personnel Keith Jay

**ATTACHMENT C**

**ANALYTICAL RESULTS: GROUNDWATER**

# CHROMALAB, INC.

5 DAYS TURNAROUND

Analytical Laboratory (E694)

October 24, 1991

ChromaLab File No.: 1091097

HAGEMAN-AGUIAR, INC.

Attn: Keith Jay

RE: Three water samples for Gasoline/BTEX analysis

Project Name: ADOBE PLAZA

Date Sampled: Oct. 10, 1991

Date Submitted: Oct. 10, 1991

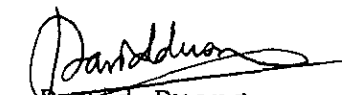
Date Extracted: Oct. 21, 1991

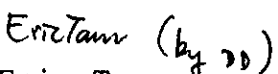
Date Analyzed: Oct. 21, 1991

## RESULTS:

Sample I.D.	Gasoline (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)
MW-1	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	160	13	3.2	2.0	18
MW-3	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	98.0%	89.1%	89.5%	92.0%	88.6%
DUP SPIKE REC.	109.8%	106.1%	96.0%	100.4%	94.3%
DETECTION LIMIT	50	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/ 8015	602	602	602	602

ChromaLab, Inc.

  
David Duong  
Chief Chemist


  
Eric Tam  
Laboratory Director

# CHROMALAB, INC.

2239 Omega Road, #1 • San Ramon, California 94583  
 510/831-1788 • Facsimile 510/831-8798

## Chain of Custody

DATE 10/10/91 PAGE 1 OF 1

PROJ. MGR. <u>GARY AGUIAR</u> COMPANY <u>HAGEMAN-AGUIAR</u> ADDRESS <u>3732 MT DIABLO</u> <u>LAFAYETTE, CA</u> SAMPLERS (SIGNATURE)  (PHONE NO.) _____					<b>ANALYSIS REPORT</b>															NUMBER OF CONTAINERS	
					CHROMALAB FILE # 1091097 ORDER # <u>3751</u>																
SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520 E&F)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8040)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	METALS	CAM ME	PRIORITY METALS	EXTRACT (TCLP, ...)		
MW-3	10-10-91	13:20	W		X																2
MW-1	10-10-91	13:30	W		X																2
MW-2	10-10-91	13:40	W		X																2
<b>PROJECT INFORMATION</b> PROJECT NAME: <u>ADOBE PLAZA</u> PROJECT NUMBER _____ SHIPPING ID. NO _____ VIA: _____					<b>SAMPLE RECEIPT</b> TOTAL NO. OF CONTAINERS <u>6</u> CHAIN OF CUSTODY SEALS _____ REC'D GOOD CONDITION/COLD _____ CONFORMS TO RECORD _____ LAB NO. _____					RELINQUISHED BY 1. <u>Keith Jay</u> (SIGNATURE) (TIME) _____ <u>KEITH JAY 10-10-91</u> (PRINTED NAME) (DATE) <u>HAGEMAN-AGUIAR</u> 10-10-91 (COMPANY)			RELINQUISHED BY 2. _____ (SIGNATURE) (TIME) _____ (PRINTED NAME) (DATE) (COMPANY)			RELINQUISHED BY 3. _____ (SIGNATURE) (TIME) _____ (PRINTED NAME) (DATE) (COMPANY)					
SPECIAL INSTRUCTIONS/COMMENTS: <u>10 DAY TAT</u>										RECEIVED BY 1. _____ (SIGNATURE) (TIME) _____ (PRINTED NAME) (DATE) (COMPANY)			RECEIVED BY 2. _____ (SIGNATURE) (TIME) _____ (PRINTED NAME) (DATE) (COMPANY)			RECEIVED BY (LABORATORY) 3. <u>Eric Jay</u> 14:50 (SIGNATURE) (TIME) <u>ERIC JAY</u> 10/10/91 (PRINTED NAME) (DATE) <u>CHROMALAB, INC.</u> (LAB)					