

HAGEMAN-SCHANK, INC.

2723 Crow Canyon Rd., Suite 210
San Ramon, CA 94583
(415) 837-2926

September 25, 1986

Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621

Attention: Mr. Scott Seery, Hazardous Materials Division

Subject: REPORT OF SOIL AND GROUNDWATER INVESTIGATION
ADOBE CENTER
3098 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Dear Mr. Seery:

Please consider the following material as our report to your agency on the soil and groundwater investigation conducted at the subject site. It also covers the installation of three ground water monitoring wells on site.

The report is complete and accurate to the extent requested. Should you have any questions regarding the material included in the report please feel free to contact our office and either I or Gary Aguiar will answer your questions.

Sincerely,

HAGEMAN-SCHANK, INC.



Bruce Hageman

cc: Mr. Cliff Sherwood, Adobe Associates
Mr. Scott Hugenberger, RWQCB
Mr. Bob Bohman, Castro Valley Fire Department

ALAMEDA COUNTY
DEPT. OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS 9/29/86

September 25, 1989

REPORT OF
SOIL AND GROUNDWATER INVESTIGATION
3098 CASTRO VALLEY BLVD
CASTRO VALLEY, CALIFORNIA

INTRODUCTION

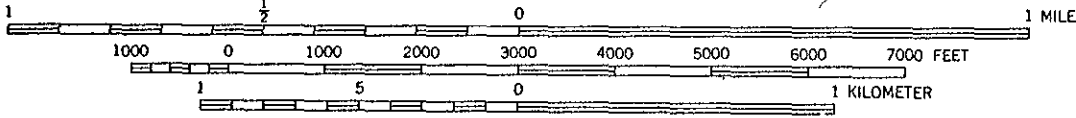
Two underground gasoline storage tanks were previously removed from the site at 3098 Castro Valley Blvd, Castro Valley, California. At the time of the tank removals, sampling of soil and backfill material that was removed from the tank excavation indicated concentrations of gasoline up to 630 mg/kg. Analysis of samples collected from the native soil beneath the tanks indicated the presence of no detectable concentrations of either gasoline or associated aromatic constituents. The purpose of the soil and groundwater investigation conducted at the above site was to install and sample three on-site monitoring wells in order to 1) determine the direction of shallow groundwater flow beneath the site, and 2) define the extent of any petroleum constituents that may be present in the shallow groundwater beneath the site.

MONITORING WELL INSTALLATION

On August 11, 1989 three shallow monitoring wells were installed on the site. The locations of the monitoring wells are shown in Figure 2 as wells MW-1, MW-2, and MW-3. The locations were selected based upon 1) known locations of soil contamination during previous tank removals, 2) the expected shallow groundwater flow direction, and 3) what was believed to be good spacing



SCALE 1:24 000



CONTOUR INTERVAL 20 FEET

FIGURE 1.
Site Map

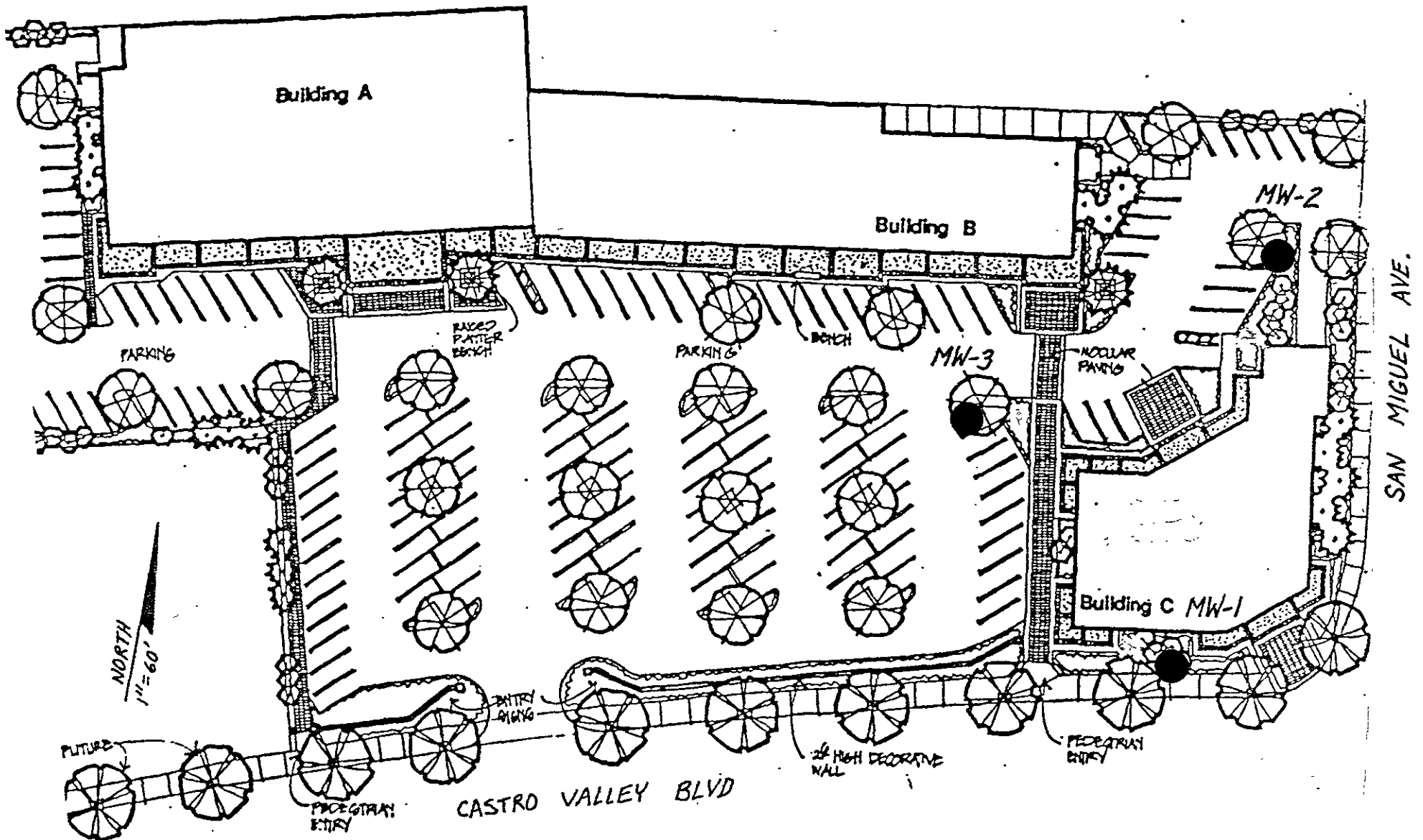


FIGURE 2
 Locations of

between data points in order to achieve reasonable plume definitions of any contaminants that may be present in the shallow groundwater beneath the site.

Each well was installed with a truck-mounted drill rig using 8-inch hollow-stem augers. During the drilling, soil samples for chemical analyses were collected at 5-foot intervals until saturated soil was encountered. These depths differed for each monitoring well boring. Shallow groundwater was encountered at depths of approximately 19 feet in boring MW-1, 10 feet in boring MW-2, and 16 feet in boring MW-3. Each soil sample was collected by driving a split-barrel sampler fitted with brass liners. All samples were immediately placed on ice, then transported under chain-of-custody to the laboratory at the end of the day.

Each boring was cased approximately five feet above and ten feet below the top of the first saturated zone with 15 feet of 2-inch PVC slotted screen pipe (0.02" slots). Well MW-1 was completed to a depth of 30 feet below the ground surface, well MW-2 was completed to a depth of 20 feet below the ground, and well MW-3 was completed to a depth of 25 feet below the ground surface. The annular space of each well was packed to one foot above the slotted section with #3 Monterey Sand. At least one foot of wetted bentonite pellets were placed upon the sand pack, followed by a neat cement/bentonite seal up to the ground surface. Each well was fitted with a locking cap and steel traffic lid. The borings were logged in the field by a registered civil engineer (CE #34262). The boring logs are shown in Attachment A. Well construction diagrams for the monitoring wells are shown in Attachment B.

Prior to the installation of each well, all drilling equipment, including augers, drill stem, and split barrel samplers, was steam-cleaned on-site.

All drill cuttings were drummed and stored on-site until the results of laboratory analyses were obtained. Depending upon these results, the cuttings will be disposed of as either a non-hazardous waste, or else as a hazardous waste under proper manifest to an appropriate TSD facility.

MONITORING WELL SAMPLING AND LABORATORY ANALYSIS

On August 22, 1989, groundwater samples were collected from each of the newly installed monitoring wells. Prior to sampling, each well was developed by bailing out at least 20 casing volumes of water on August 18, 1989. All samples were immediately placed on ice, then transported under chain-of-custody to the laboratory following the completion of work on August 22. During the development of each well, no appreciable drawdown was noted, thus indicating a high rate of recharge (likely to be more than 5 gpm).

Based upon the results of the laboratory analysis of the groundwater sample, monitoring well MW-2 was resampled on September 6, 1989, in order to confirm the presence of petroleum hydrocarbons.

All analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures. All soil and groundwater samples were analyzed for BTX and Total Petroleum Hydrocarbons as gasoline.

All water removed from the well during development and purging was drummed and stored on-site until the results of laboratory analyses were obtained. Depending upon these results, the water will be sewerred as a non-hazardous liquid waste in accordance with local sewerred agency permit requirements, or else it will be transported as a hazardous liquid waste under proper manifest to an appropriate TSD facility for treatment and disposal.

SITE HYDROGEOLOGY

Based upon the Geologic Map of California, San Francisco Sheet, State of California Division of Mines and Geology, 1980, the soils beneath the site consist of Quaternary Alluvium overlying uplifted Cretaceous Marine deposits that comprise the surrounding San Leandro Hills. During the borings for the

well installations, varying amounts of clay, sand, and gravel were encountered. The location of a geologic cross-section is shown in Figure 3. Figure 4 shows the geologic cross-section that was drawn from the information contained in the boring logs. As shown in this figure, shallow groundwater appears to be present beneath the site in channelized sand and silt deposits. In addition, these channelized deposits appear to be somewhat discontinuous between the locations of each of the three monitoring wells. Based upon the water level and boring log data, groundwater in the saturated zones of each of the three well borings is of a confined or semi-confined nature.

Shallow water table elevations were measured on August 23, 1989, and on September 13, 1989. These measurements are shown in Table 1. During the survey that was conducted following the monitoring well installations, the top-of-casing elevation at monitoring well MW-2 was set at 100 feet as an arbitrary datum.

Based upon the surface topography, as well as the various hydrologic features shown on the vicinity map, the general regional shallow groundwater can be expected to flow from the San Leandro Hills to the north and to the east of the site (areas of groundwater recharge) and move toward San Lorenzo Creek to the south of the site (area of discharge). Figure 5 presents a contour map of the potentiometric surface of the shallow groundwater beneath the site that was constructed from the water level measurements. Although the shallow groundwater movement beneath the site is likely to be somewhat channelized within the more permeable sand/silt layers, the overall flow direction, as indicated in Figure 5, appears to be in the south-southeasterly direction. This flow direction is consistent with the expected regional groundwater flow.

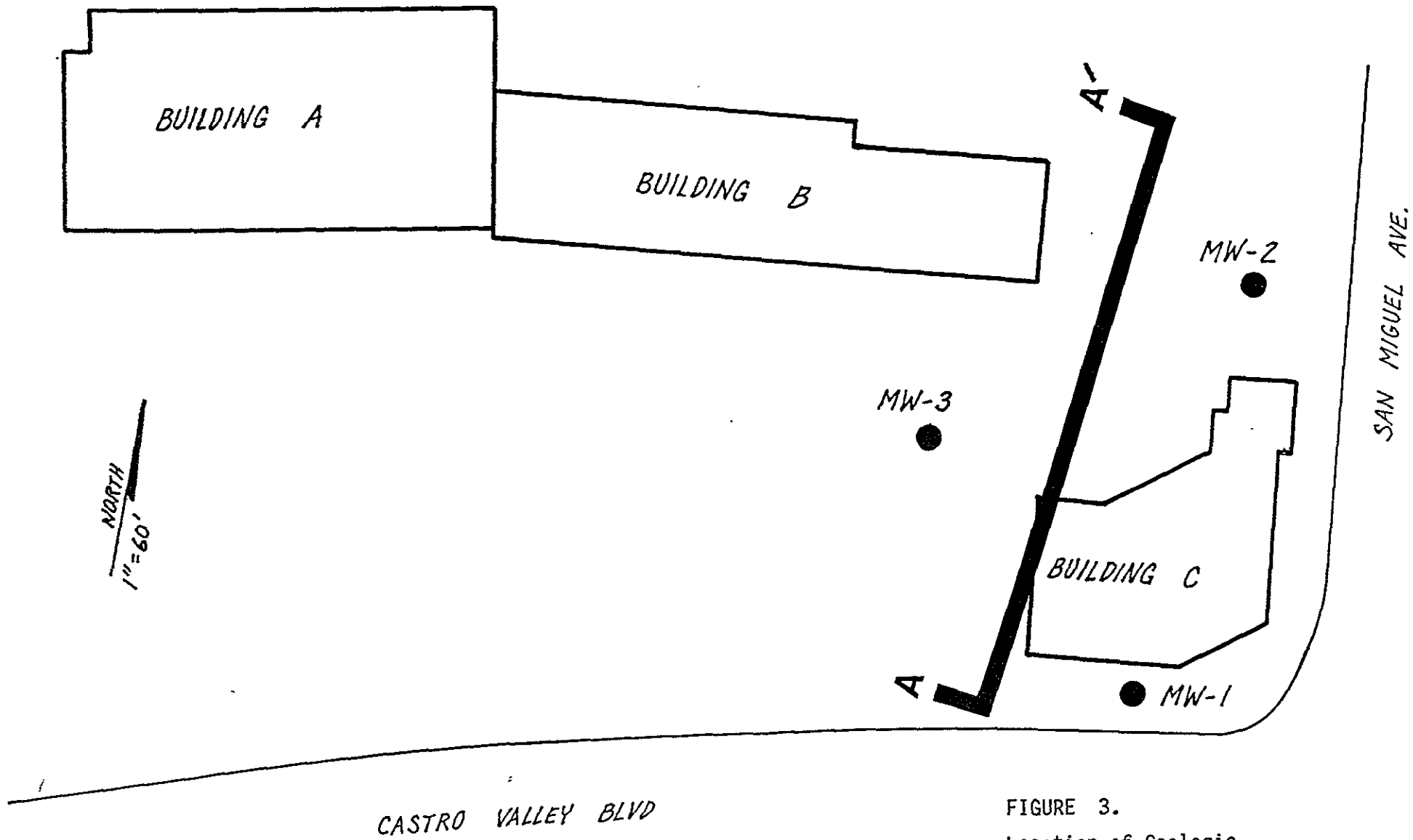


FIGURE 3.
Location of Geologic
Cross-Section.

A

A'

MW-1

MW-3

MW-2

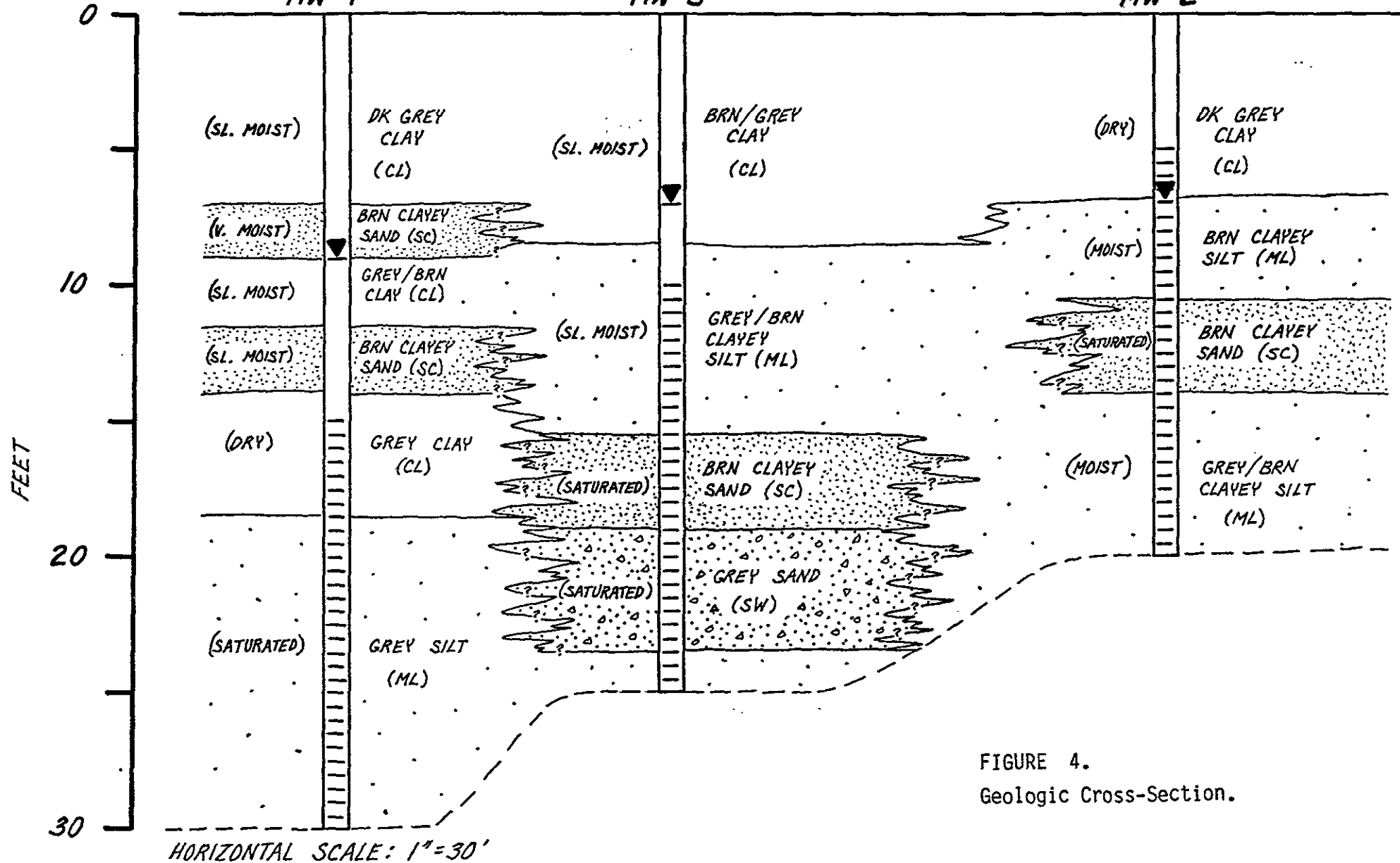


FIGURE 4.
Geologic Cross-Section.

TABLE 1. Shallow Water Table Elevations

Well	Top of Casing Elevation (feet)	measured 8-23-89		measured 9-13-89	
		Depth to Water (feet)	Water Table Elevation (feet)	Depth to Water (feet)	Water Table Elevation (feet)
MW-1	99.73	9.46	90.27	9.08	90.65
MW-2	100.00	7.25	92.75	7.08	92.92
MW-3	99.76	7.38	92.38	7.08	92.68

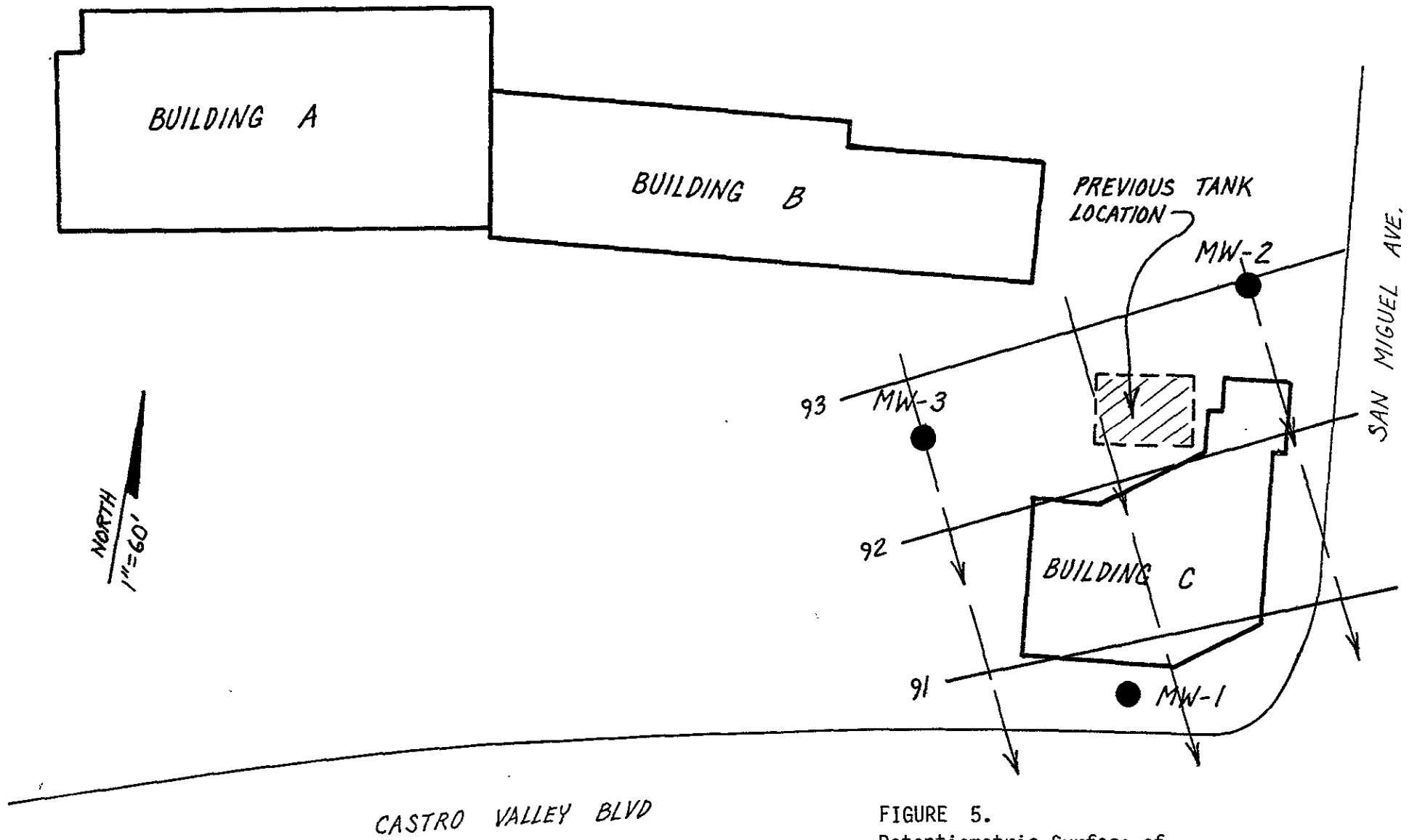


FIGURE 5.
Potentiometric Surface of
Shallow Groundwater.

RESULTS OF SOIL SAMPLING

Table 2 presents the results of the laboratory analysis of the soil samples collected during the monitoring well installations. As shown in this table, high concentrations of gasoline (up to 1,300 ppm) were detected in the soil in the vicinity of monitoring well MW-1. This soil is located within two layers of unsaturated clayey sand between 8 and 10 feet in depth. In addition, gasoline was detected at a concentration of 11 ppm in the unsaturated soil in the vicinity of monitoring well MW-2 at a depth of 5 feet.

As shown in Table 2, analysis of soil samples indicates the presence of low concentrations of Toluene in each of the three borings down to the top of the saturated zone.

Copies of the laboratory certificates are included as Attachment C.

RESULTS OF GROUNDWATER SAMPLING

Table 3 presents the results of the laboratory analysis of the groundwater samples collected from the three monitoring wells on August 22, 1989. As shown in this table, trace concentrations of dissolved gasoline (110 ppb) and benzene (5.3 ppb) were detected in monitoring well MW-2. In addition, very trace amounts of benzene, toluene, and xylenes were detected in monitoring well MW-1.

The results of the additional sampling of monitoring well MW-2 on September 6, 1989 is shown in Table 3 (continued). As shown in this table, neither gasoline nor associated aromatic constituents were detected following the re-development of this well.

TABLE 2. Soil Sampling Results.

Boring	Depth (feet)	Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethy- benzene (mg/kg)	Xylenes (mg/kg)
MW-1	5	ND	ND	ND	ND	ND
	8	1,300	ND	30	21	110
	10	70	0.051	1.4	0.97	5.0
	12	ND	ND	0.17	ND	0.37
	15	ND	ND	0.11	ND	ND
	20	ND	ND	0.076	ND	ND
MW-2	5	11	ND	2.2	ND	ND
	10	ND	ND	0.12	ND	ND
MW-3	5	ND	ND	0.21	ND	ND
	10	ND	ND	0.14	ND	ND
	15	ND	ND	0.78	ND	ND
DETECTION LIMIT (mg/kg)		10	0.025	0.025	0.075	0.075

TABLE 3. Groundwater Sampling Results

Sampled 8-22-89					
Well	Gasoline ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethy- benzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)
MW-1	ND	0.5	1.2	ND	3.1
MW-2	110	5.3	ND	ND	ND
MW-3	ND	ND	ND	ND	ND
DETECTION LIMIT ($\mu\text{g/L}$)	50	0.5	0.5	1.5	1.5

TABLE 3. Groundwater Sampling Results
(continued)

Sampled 9-6-89					
Well	Gasoline ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethy- benzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)
MW-2	ND	ND	ND	ND	ND
DETECTION LIMIT ($\mu\text{g/L}$)	50	0.5	0.5	1.5	1.5

Copies of the laboratory certificates are included as Attachment D.

CONCLUSIONS

Based upon the results of this soil and groundwater investigation, the following can be concluded:

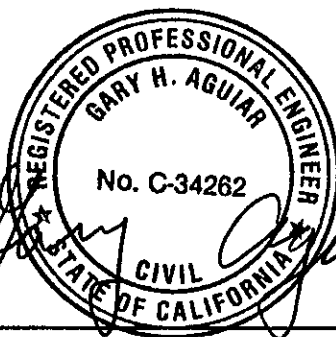
- 1) The shallow groundwater appears to be present in channelized sand and silt deposits, and is of a confined or semi-confined nature. The potentiometric surface of the shallow groundwater is present at a depth of approximately 7 to 9 feet beneath the site.
- 2) Shallow groundwater movement beneath the site is in the south-southeasterly direction, and is consistent with the expected regional groundwater flow.
- 3) In the vicinity of monitoring well MW-1, high concentrations of gasoline (up to 1,300 ppm) were detected within two layers of unsaturated clayey sand located between 8 and 10 feet in depth.
- 4) Gasoline was detected at a concentration of 11 ppm in the unsaturated soil in the vicinity of monitoring well MW-2 at a depth of 5 feet.
- 5) Low soil concentrations of Toluene were detected in each of the three borings down to the top of the saturated zone.
- 6) Trace concentrations of dissolved gasoline (110 ppb) and benzene (5.3 ppb) were detected in the first groundwater sample collected from monitoring well MW-2. Following the re-development and additional sampling of monitoring well MW-2, no detectable amounts of either gasoline or associated aromatic constituents were found in the groundwater sample.

- 7) Very trace amounts of benzene, toluene, and xylenes were detected in the groundwater sample collected from monitoring well MW-1.

RECOMMENDATIONS

The results of the investigation indicate that some residual gasoline contamination remains in the soil beneath the site at several near-surface locations within the unsaturated zone. In addition, trace amounts of gasoline and associated aromatic constituents such as benzene were found to be present in shallow groundwater samples. The results of re-development and additional sampling of one of the monitoring wells, as well as the confined nature of the shallow groundwater beneath the site tends to suggest very minimal impact upon the quality of the regional groundwater in the vicinity of the site.

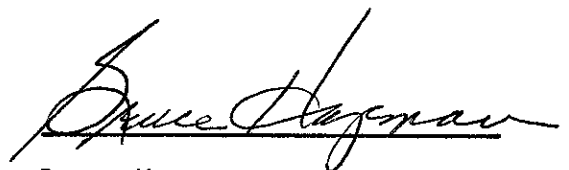
It is recommended that quarterly monitoring of the three monitoring wells be carried out over the course of one year. If contamination levels remain stable or decline during the first year, as would be expected due to the removal of the contamination source (underground tanks), a request will be made to the appropriate regulatory agency for permission to either reduce the frequency of monitoring or else discontinue monitoring and properly abandon the existing monitoring wells.



Gary H. Aguiar

Gary Aguiar

RCE 34262



Bruce Hageman

Bruce Hageman

ATTACHMENT A

Boring Logs

LOCATION OF BORING

JOB NO.

CLIENT

LOCATION

ADOBE PLAZA

CASTRO VALLEY

DRILLING METHOD:

BORING NO

MW-1

SHEET

2 of 2

SAMPLING METHOD:

DRILLING

WATER LEVEL

START

FINISH

TIME

TIME

TIME

DATE

DATE

DATE

CASING DEPTH

DATUM

ELEVATION

SURFACE CONDITIONS:

SAMPLER TYPE	INCHES DRIVER INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. SAMPLE DEPTH	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH
2" SPLIT	18/18			10 1/2	0925	20	
						1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						30	
						1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						0	

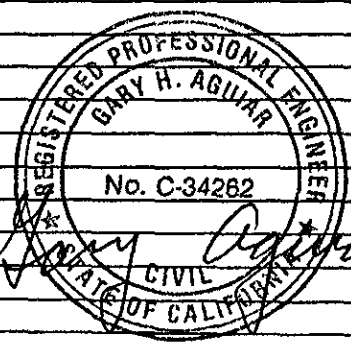
GREY SILT (SM), SATURATED, SLIGHTLY CLAYEY, DENSE

SAME, VARYING CLAY CONTENT

TOTAL DEPTH = 30' BLS

15' SCREEN

15' BLANK



DRILLING CONTR.

CHK'D BY

DATE

LOCATION OF BORING

JOB NO.

ADOBE PLAZA

CLIENT

CASTRO VALLEY

DRILLING METHOD:

8" HOLLOW STEM AUGERS

BORING NO

MW-2

SHEET

1 of 1

SAMPLING METHOD:

2" SPLIT BARREL SAMPLER WITH BRASS LINERS

DRILLING

START TIME

1145

FINISH TIME

1230

WATER LEVEL

TIME

DATE

CASING DEPTH

DATE

DATE

8/11/89

8/11/89

SEE SITE MAP

DATUM

ELEVATION

SURFACE CONDITIONS:

PLANTER AREA

TOPSOIL

DK GREY GRAVELLY CLAY (CL), DRY, CRUMBLY, GRAVEL TO 1/2"

SAME, DRY

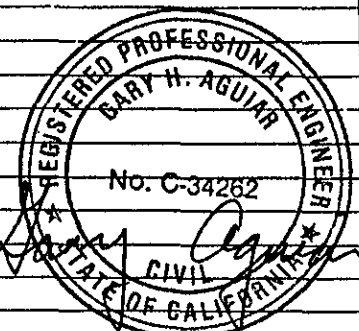
BRN CLAYEY SILT (ML), MOIST, HIGH SILT CONTENT, LOW PLASTICITY

BRN CLAYEY SAND (SC), SATURATED, LOOSE, SAND FINE TO MEDIUM GRAIN

GREY/BRN CLAYEY SILT (ML), MOIST, VARIEGATED COLOR, DENSE, SLIGHTLY STIFF

SAME, GREY & BRN COLOR IN WELL-DEFINED THIN LAYERS

TOTAL DEPTH = 20' BLS



DRILLING CONTR.

CHK'D BY DATE

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO / SAMPLE DEPTH	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH
						0	
						1	
						2	
						3	
						4	
2" SPLIT	18 / 18			2 3/4	1155	5	
						6	
						7	
						8	
						9	
						10	
2" SPLIT	18 / 18			6 8/10	1210	11	
						12	
						13	
						14	
						15	
						16	
2" SPLIT	18 / 18			3 3/5	1220	17	
						18	
						19	
PIN					1230	20	

LOCATION OF BORING

JOB NO.

CLIENT

LOCATION

ADOBE PLAZA

CASTRO VALLEY

SEE SITE MAP

DRILLING METHOD:

8" HOLLOW STEM AUGER

BORING NO

MW-3

SHEET

1 of 2

SAMPLING METHOD:

2" SPLIT BARREL SAMPLER WITH BRASS LINERS

DRILLING

START

FINISH

TIME

TIME

1410

1500

DATE

DATE

8/11/89

8/11/89

CASING DEPTH

DATUM

ELEVATION

SURFACE CONDITIONS:

PLANTER AREA

TOPSOIL

BRN/GREY CLAY (CL), SLIGHTLY MOIST, BRN COLOR WITH GREY STREAKS, BLACK SPOTS (ORGANIC MATTER), STIFF

SAME, SLIGHTLY MOIST

BRN/GREY CLAYEY SILT (ML), SLIGHTLY MOIST, BRN COLOR WITH GREY STREAKS, STIFF

SAME, NEARLY SATURATED, BLACK SPOTS (ORGANIC MATTER)

BRN CLAYEY SAND (SC), SATURATED, LOOSE, FINE TO MEDIUM GRAIN (ROUNDED)

GREY SAND (SW), SATURATED

DRILLING CONTR.

DATE CHK'D BY

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH
2" SPLIT	18 / 18		5/7/8	1415		0-5	
2" SPLIT	18 / 18		3/4/5	1425		5-10	
2" SPLIT	18 / 15		4/9/13	1437		10-15	
						15-20	

LOCATION OF BORING

JOB NO.

CLIENT

LOCATION

ADOBE PLAZA

CASTRO VALLEY

DRILLING METHOD:

BORING NO.

MW-3

SHEET

2 of 2

SAMPLING METHOD:

DRILLING

WATER LEVEL

START

FINISH

TIME

TIME

TIME

DATE

DATE

DATE

CASING DEPTH

8/11/89

DATUM

ELEVATION

SURFACE CONDITIONS:

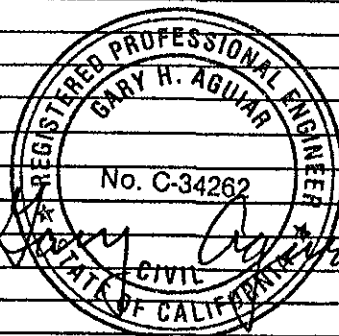
SAMPLER TYPE	INCHES DRIVER RECOVERED	DEPTH OF CASING	SAMPLE NO. SAMPLE DEPTH	BLOWS/FT. SAMPLER	DEPTH IN FEET	SOIL GRAPH
					20	
					1	
					2	
					3	
					4	
					5	
					6	
					7	
					8	
					9	
					30	
					1	
					2	
					3	
					4	
					5	
					6	
					7	
					8	
					9	
					0	

GREY SAND (SW), SATURATED,
WELL GRADED FINE TO COARSE, OCCASIONAL
GRAVEL TO 1", RIVER-RUN SAND, VARIABLE
MIXTURE OF QUARTZ, CHERT, BASALT,
APPROX 5% CLAY CONTENT, LOOSE

GREY CLAYEY SILT, NEARLY DRY, STIFF

TOTAL DEPTH = 25' BLS

15' SCREEN
10' BLANK



DRILLING CONTR.

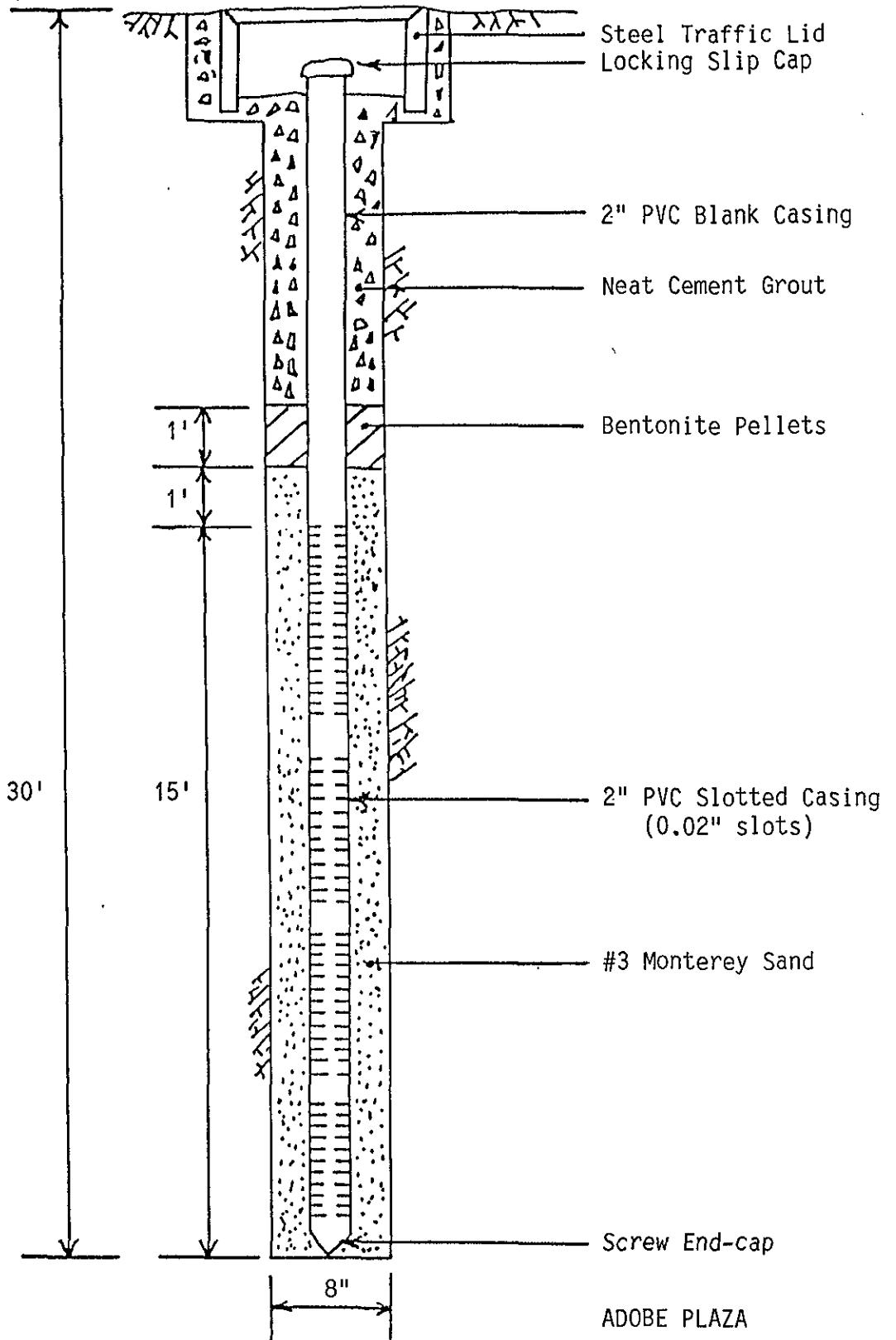
CHK'D BY

DATE

ATTACHMENT B

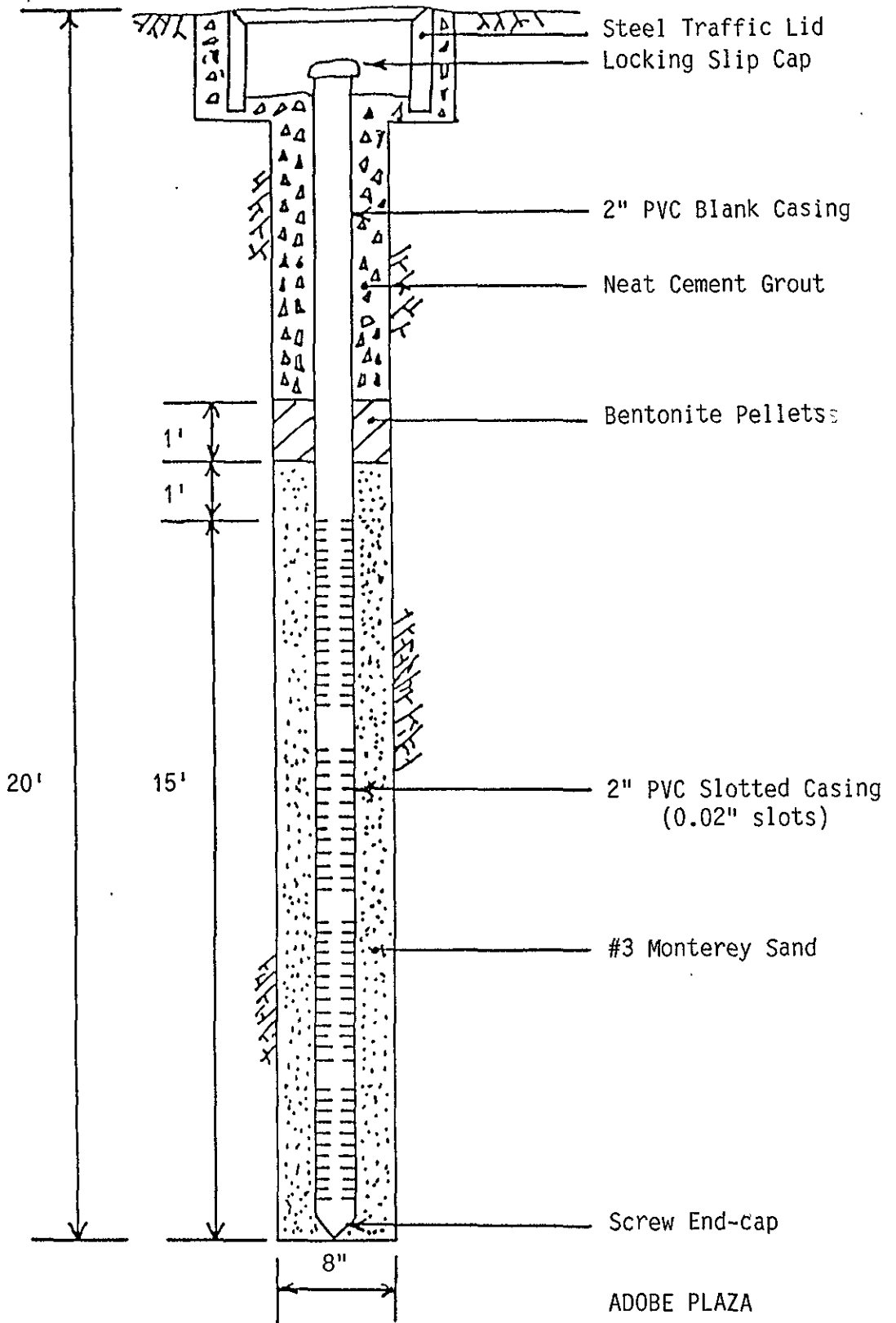
Well Construction Diagrams

MONITORING WELL MW-1



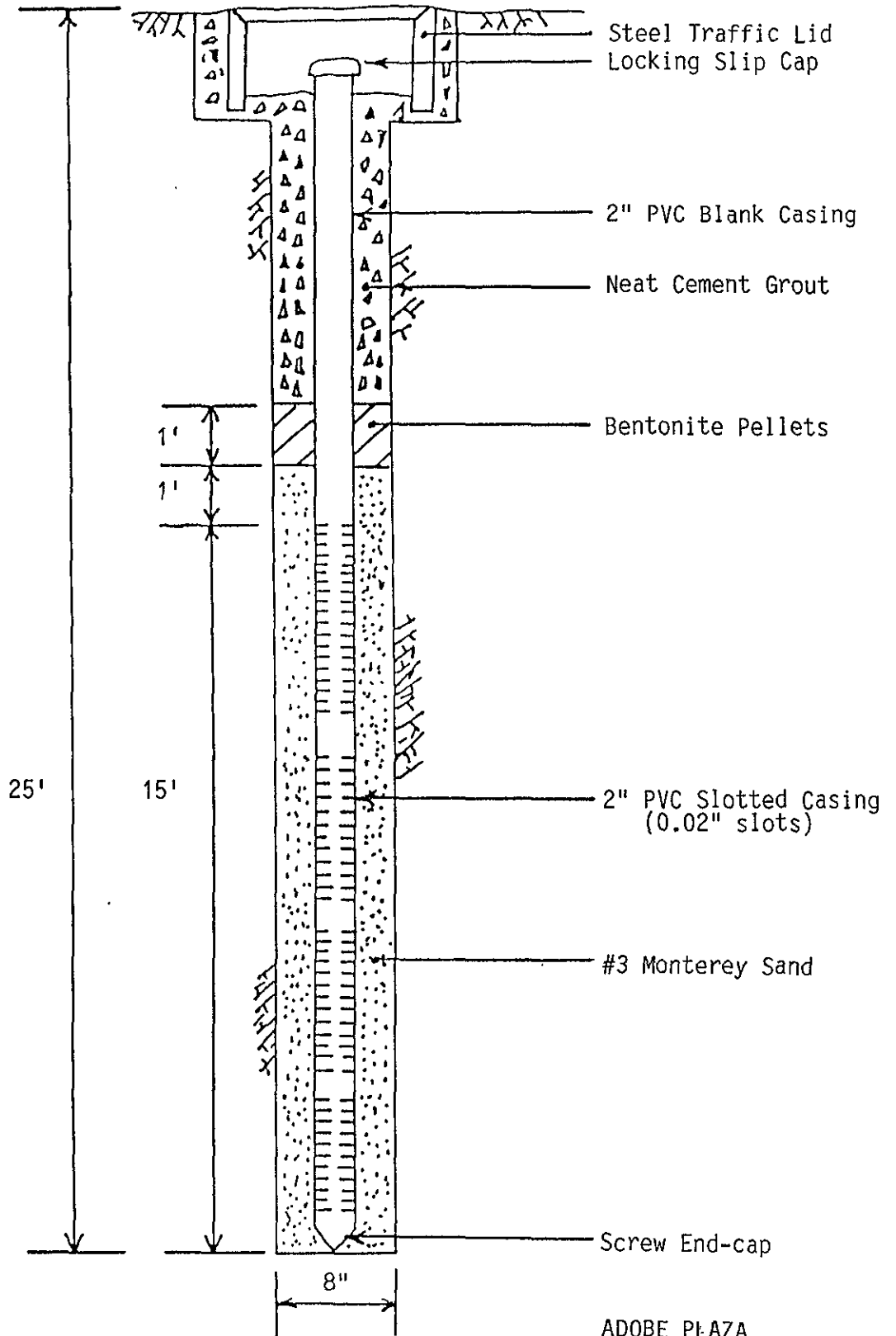
ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

MONITORING WELL MW-2



ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

MONITORING WELL MW-3



ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

ATTACHMENT C

Analytical Results: Soil



NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Bruce Hageman
Hageman-Schank, Inc.
2723 Crow Canyon Rd., #210
San Ramon, CA 94583

08-24-89
NET Pacific Log No: 7400
Series No: 341
Client Ref: Bruce Hageman

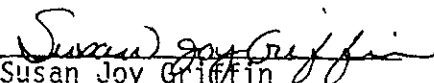
Subject: Analytical Results for "Adobe Plaza, 3098 Castro Valley Blvd.,
Castro Valley, CA" Received 08-11-89.


Dear Mr. Hageman:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Approved by:


Susan Joy Griffin
Group Leader
Gas Chromatography


Brian Fies
Group Leader
Atomic Spectroscopy

/sm

Enc: Sample Custody Document



KEY TO ABBREVIATIONS and METHOD REFERENCESAbbreviations

- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NR : Not requested.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, $100 \text{ [Value 1 - Value 2] / mean value}$.
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.



Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results				
		MW-1-5' 08-11-89 0845	MW-1-8' 08-11-89 0850	MW-1-10' 08-11-89 0858	MW-1-12' 08-11-89 0900	MW-1-15' 08-11-89 0910
		(-32811)	(-32812) ^a	(-32813)	(-32814)	(-32815)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)						
DILUTION FACTOR		1	25	1	1	1
DATE ANALYZED	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89
METHOD GC FID/5030 as Gasoline	10	ND	1,300	70	ND	ND

Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results				
		MW-1-5' 08-11-89 0845	MW-1-8' 08-11-89 0850	MW-1-10' 08-11-89 0858	MW-1-12' 08-11-89 0900	MW-1-15' 08-11-89 0910
		(-32811)	(-32812)	(-32813)	(-32814)	(-32815)
METHOD 8020						
Benzene	25	ND	ND	51	ND	ND
Ethylbenzene	75	ND	21,000	970	ND	ND
Toluene	25	ND	30,000	1,400	170	110
Xylenes, total	75	ND	110,000	5,000	370	ND

^aThe reporting limits for this sample are 25 times the listed reporting limits.



NET Pacific, Inc. 341/

LOG NO 7400

- 4 -

August 24, 1989

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results				
		MW-1-20' 08-11-89 0925	MW-2-5' 08-11-89 1155	MW-2-10' 08-11-89 1210	MW-3-5' 08-11-89 1415	MW-3-10' 08-11-89 1425
		(-32816)	(-32817)	(-32818)	(-32819)	(-32820)
PETROLEUM HYDROCARBONS VOLATILE (SOIL)						
DILUTION FACTOR		1	1	1	1	1
DATE ANALYZED	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89	08-18-89
METHOD GC FID/5030 as Gasoline	10	ND	11	ND	ND	ND

Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results				
		MW-1-20' 08-11-89 0925	MW-2-5' 08-11-89 1155	MW-2-10' 08-11-89 1210	MW-3-5' 08-11-89 1415	MW-3-10' 08-11-89 1425
		(-32816)	(-32817)	(-32818)	(-32819)	(-32820)
METHOD 8020						
Benzene	25	ND	ND	ND	ND	ND
Ethylbenzene	75	ND	ND	ND	ND	ND
Toluene	25	76	2,200	120	210	140
Xylenes, total	75	ND	ND	ND	ND	ND



NET Pacific, Inc. 341/

LOG NO 7400

- 5 -

August 24, 1989

<u>Parameter</u>	<u>Reporting Limit (mg/Kg)</u>	<u>Descriptor, Lab No. and Results</u>
		MW-3-15' 08-11-89 1437
		(-32821)

PETROLEUM HYDROCARBONS
VOLATILE (SOIL)

DILUTION FACTOR
DATE ANALYZED

1
08-18-89

METHOD GC FID/5030
as Gasoline

10 ND

<u>Parameter</u>	<u>Reporting Limit (mg/Kg)</u>	<u>Descriptor, Lab No. and Results</u>
		MW-3-15' 08-11-89 1437
		(-32821)

METHOD 8020

Benzene	25	ND
Ethylbenzene	75	ND
Toluene	25	78
Xylenes, total	75	ND

CHAIN OF CUSTODY RECORD

7400

PROJ. NO.		SAMPLERS: (Signature) <i>Samy Aguirre</i>					ANALYSIS REQUESTED						REMARKS		
PROJECT NAME AND ADDRESS															
ADOBE PLAZA							<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">TOTAL PETROLEUM HYDROCARBONS - GAS</div> <div style="width: 15%;">BTEX & E</div> <div style="width: 15%;">VOC-EPA 8240</div> <div style="width: 15%;">TOTAL OIL & GREASE</div> <div style="width: 15%;">TETRAETHYL LEAD</div> </div>							REMARKS	
3098 CASTRO VALLEY BLVD CASTRO VALLEY, CA															
CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION										
MW-1-5'	8/11/89	0845	X		MONITORING WELL MW-1 @ 5'		X	X							
MW-1-8'	8/11/89	0850	X		" " " @ 8'		X	X							
MW-1-10'	8/11/89	0858	X		" " " @ 10'		X	X							
MW-1-12'	8/11/89	0900	X		" " " @ 12'		X	X						NORMAL	
MW-1-15'	8/11/89	0910	X		" " " @ 15'		X	X							
MW-1-20'	8/11/89	0925	X		" " " @ 20'		X	X						10 DAY TURN AROUND	
MW-2-5'	8/11/89	1155	X		MONITORING WELL MW-2 @ 5'		X	X							
MW-2-10'	8/11/89	1210	X		" " " @ 10'		X	X							
MW-3-5'	8/11/89	1415	X		MONITORING WELL MW-3 @ 5'		X	X							
MW-3-10'	8/11/89	1425	X		" " " @ 10'		X	X							
MW-3-15'	8/11/89	1437	X		" " " @ 15'		X	X							
BLANK	8/11/89				TRIP BLANK										

RELINQUISHED BY: (Signature) <i>Samy Aguirre</i>	DATE 8/11/89 8/14/89	TIME 1510	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature) <i>Eric Aguirre</i>	DATE 8/11/89	TIME 17:47	RECEIVED BY: (Signature) <i>Deane Kruger</i>	DATE 8/11/89	TIME 174
RELINQUISHED BY: (Signature) <i>Deane Kruger</i>	DATE 8-11-89	TIME 1800	RECEIVED BY: (Signature) <i>Erud Elrod</i>	DATE 8/11/89	TIME 2000
RELINQUISHED BY: (Signature) (U & NCS)	DATE	TIME	RECEIVED FOR LABORATORY BY: (Signature) <i>Kjempfe</i>	DATE 8/11/89	TIME 2200

ATTACHMENT D

Analytical Results: Groundwater



NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Bruce Hageman
Hageman-Schank, Inc.
2723 Crow Canyon Rd., #210
San Ramon, Ca., 94583

08-28-89
NET Pacific Log No: 7513
Series No: 341
Client Ref: Project#J2020

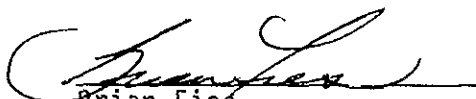
Subject: Analytical Results for "Adobe Center, Castro Valley" Received
08-24-89.

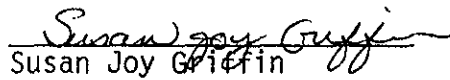
Dear Mr. Hageman:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Approved by:


Brian Fies
Group Leader
Atomic Spectroscopy


Susan Joy Griffin
Group Leader
Gas Chromatography

/sm

Enc: Sample Custody Document



KEY TO ABBREVIATIONS and METHOD REFERENCES

Abbreviations

- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NR : Not requested.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, $100 \text{ [Value 1 - Value 2] / mean value}$.
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

* Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.



NET Pacific, Inc.

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LOG NO 7513

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August 28, 1989

SAMPLE DESCRIPTION: MW-1 08-22-89 1045
LAB NO.: (-33470)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (WATER)			
DILUTION FACTOR		1	
DATE ANALYZED		08-24-89	
METHOD GC FID/5030 as Gasoline	0.05	ND	mg/L
METHOD 602			
Benzene	0.5	0.5	ug/L
Ethylbenzene	1.5	ND	ug/L
Toluene	0.5	1.2	ug/L
Xylenes, total	1.5	3.1	ug/L



NET Pacific, Inc 341/

LOG NO 7513

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August 28, 1989

SAMPLE DESCRIPTION: MW-2 08-22-89 0945
LAB NO.: (-33471)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (WATER)			
DILUTION FACTOR		1	
DATE ANALYZED		08-24-89	
METHOD GC FID/5030 as Gasoline	0.05	0.11	mg/L
METHOD 602			
Benzene	0.5	5.3	ug/L
Ethylbenzene	0.5	ND	ug/L
Toluene	0.5	ND	ug/L
Xylenes, total	0.5	ND	ug/L



NET Pacific, Inc. 341/

LOG NO 7513

- 5 -

August 28, 1989

SAMPLE DESCRIPTION: MW-3 08-22-89 1030
LAB NO.: (-33472)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (WATER)			
DILUTION FACTOR		1	
DATE ANALYZED		08-24-89	
METHOD GC FID/5030 as Gasoline	0.05	ND	mg/L
METHOD 602			
Benzene	0.5	ND	ug/L
Ethylbenzene	1.5	ND	ug/L
Toluene	0.5	ND	ug/L
Xylenes, total	1.5	ND	ug/L



NET Pacific, Inc. 341/

LOG NO 7513

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August 28, 1989

SAMPLE DESCRIPTION: Trip Blank
LAB NO.: (-33473)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (WATER)			
DILUTION FACTOR		1	
DATE ANALYZED		08-24-89	
METHOD GC FID/5030 as Gasoline	0.05	ND	mg/L
METHOD 602			
Benzene	0.5	ND	ug/L
Ethylbenzene	1.5	ND	ug/L
Toluene	0.5	ND	ug/L
Xylenes, total	1.5	ND	ug/L



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Formerly: ANATEC Labs, Inc.

Bruce Hageman
Hageman-Schank, Inc.
2723 Crow Canyon Rd., #210
San Ramon, CA 94583

09-07-89
NET Pacific Log No: 7638
Series No: 341
Client Ref: Bruce Hageman

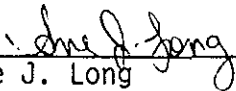
Subject: Analytical Results for "Adobe Center, Castro Valley" Received
09-06-89.

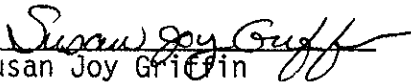
Dear Mr. Hageman:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Approved by:


Sue J. Long
Group Leader
Classical Chemistry


Susan Joy Griffin
Group Leader
Gas Chromatography

/sm
Enc: Sample Custody Document

KEY TO ABBREVIATIONS and METHOD REFERENCES

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Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

- * Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.

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LOG NO 7638

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September 7, 1989

SAMPLE DESCRIPTION: MW-2A 09-05-89 1130
 LAB NO.: (-34382)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (WATER)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-05-89	
METHOD GC FID/5030 as Gasoline	0.5	ND	mg/L
METHOD 602			
Benzene	1.0	ND	ug/L
Ethylbenzene	1.0	ND	ug/L
Toluene	1.0	ND	ug/L
Xylenes, total	1.0	ND	ug/L

8-18-89 ADOBE WELL DEVELOPMENT
9:25 AM MW-1 - NO FREE PRODUCT - NO ODOR
FIRST WATER ENCOUNTERED NO SILT
AT 9'

AMOUNT OF WATER PURGED 45 GALS
W/TT AFTER DEVELOPMENT

8-18-89 - BLUE GRAY SILT - DID NOT CLEAN
MW-2 8-18-89 - 1145 NO SILT
FIRST - NO FREE PRODUCT - NO ODOR
WATER AT 6'6" T

AMOUNT OF WATER PURGED 35 GALLONS
DEPTH TO GROUND WATER AFTER PURGE
7'0"

BROWN SILT - WATER ~~did~~ NOT
CLEAN UP:

M-3 - 8-18-89
FIRST WATER AT 9'
35 GALLONS PURGED

WATER: CLEAN - LITTLE SILT - GRAY
NO ODOR - NO FREE PRODUCT

9-6-89
35 gal