aqua science engineers inc.

October 31, 1994

REPORT
of
SOIL AND GROUNDWATER ASSESSMENT
ASE JOB NO. 2607
at
Former Alameda Max's Service Station
1357 High Street
Alameda, California

REGISTERED PROFESSIONAL ENGINEER
DAVID M. SCHULTZ
No. 38738
Exp. 4-97
CIVIL
STATE OF CALIFORNIA

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
(510) 820-9391

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1.0 INTRODUCTION

This report outlines the methods and findings of Aqua Science Engineers, Inc. (ASE)'s soil and groundwater investigation at the former Alameda Max's service station located at 1357 High Street, Alameda, California *(Figure 1)*. The proposed site assessment activities were initiated by the property owner, Mr. James A. Phillipsen, in accordance with a letter received from the Alameda County Health Care Services Agency (ACHCSA) dated June 3, 1994 (Appendix A).

2.0 SITE HISTORY

A gasoline service station formerly occupied the site *(Figure 2)*. On March 26, 1993, ASE removed one (1) 6,000-gallon gasoline storage tank, one (1) 5,000-gallon gasoline storage tank, one (1) 4,000-gallon gasoline storage tank, one (1) 550-gallon gasoline storage tank, one (1) 150-gallon waste oil storage tank and one (1) 150-gallon oil and water separator from the site. All of the tanks were steel. The 550-gallon gasoline storage tank had a hole in the tank upon inspection, and strong petroleum odors were present around the tank. The 150-gallon waste oil storage tank did not contain any apparent holes or cracks, however, a strong petroleum odor was emanating from the excavation. No holes, cracks or petroleum odors were identified upon inspection of the other tanks. Up to 140 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-G), 2,200 ppm total petroleum hydrocarbons as diesel (TPH-D) and 12,000 ppm oil and grease (O&G) were detected in soil samples collected from the tank pits.

On November 22, 1993, ASE overexcavated soil from the former waste-oil storage tank pit and removed the soil stockpiles that were generated during the tank removal operations, which were subsequently backfilled into their respective tank pits. A total of approximately 88 tons of contaminated soil was overexcavated and removed from the site. Only 2 ppm O&G was detected in a confirmation sample collected at the bottom of northern sidewall of the waste oil tank excavation.

On March 31, 1994, ASE drilled borings BH-A through BH-C at the site and installed groundwater monitoring wells MW-1 through MW-3 in the borings. Up to 7,500 ppm O&G and 1,400 ppm TPH-D were detected in a soil sample collected from boring BH-B near the waste oil tank. Relatively low TPH-G concentrations (7.4 ppm) were detected in shallow unsaturated soil from boring BH-C. No hydrocarbons were detected in the soil sample collected in boring BH-A.

On April 4, 1994, ASE collected groundwater samples from the wells. 6,200 parts per billion (ppb) O&G, 150 ppb TPH-G and low benzene, toluene, ethylbenzene and total xylene (BTEX) and trichloroethene (TCE) concentrations were in groundwater samples from monitoring well MW-2, located near the waste oil tank. 1,200 ppb TPH-G, 180 ppb TPH-D and between 3 and 230 ppb BTEX were detected in groundwater samples collected from monitoring well MW-3, at the downgradient edge of the site.

On August 2, 1994, monitoring well MW-2 contained 0.16-feet of what appeared to be free-floating unused motor oil. 60 ppb TPH-G, 500 ppb TPH-D and no BTEX were detected in monitoring well MW-1. 2,700 ppb TPH-G and between 6 ppb and 470 ppb BTEX were detected in the groundwater sample collected from monitoring well MW-3.

3.0 SCOPE OF WORK (SOW)

Based on the site history and requirements outlined in the ACHCSA June 3, 1994 letter, ASE's SOW was limited to:

1) Preparing a site safety plan;

2) Obtaining all necessary permits from the appropriate agencies including permits to install monitoring wells and permits to drill in the city's right of way;

3) Drilling one (1) soil boring downgradient of the site;

4) Collecting and analyzing soil samples collected from the boring for TPH-G, TPH-D, O&G, benzene, toluene, ethylbenzene and total xylenes (BTEX) and volatile organic compounds (VOCs).

5) Completing the boring as a 2-inch diameter groundwater monitoring well;

6) Developing the monitoring well;

7) Collecting groundwater samples from the well for analyses;

8) Analyzing the groundwater samples for TPH-G, TPH-D, O&G, BTEX and VOCs.

9) Surveying the top of casing elevation of the well relative to the existing site wells;

10) Reporting the subsurface investigation results.

4.0 DRILLING SOIL BORINGS AND COLLECTING SAMPLES

ASE obtained Alameda County Flood Control and Water Conservation District (Zone 7) well construction permit #94611 and City of Alameda Encroachment Permit to allow for drilling in the city right of way prior to drilling (Appendix B).

On September 30, 1994, Soils Exploration Services of Vacaville, California drilled soil boring BH-D at the site using a CME-55 drill rig equipped with 8-inch diameter hollow-stem augers. Groundwater monitoring well MW-4 was subsequently constructed in the boring *(Figure 2)*. The drilling was directed by ASE project geologist Robert E. Kitay. The boring was located to assess the extent of soil and groundwater contamination in the area downgradient of the site. The boring was placed as far into the street as possible without crossing a utility line which may act as a conduit for migration of contamination.

Undisturbed soil samples were collected at 2, 5, 10 and 15-feet below ground surface (bgs) for lithologic and hydrogeologic description and for possible chemical analyses. The samples were collected by driving a split-barrel drive sampler lined with 2-inch diameter stainless steel tubes ahead of the auger tip with successive blows from a 140-lb. hammer dropped 30-inches. One tube from 3.5-feet bgs was immediately trimmed, sealed with Teflon tape, plastic end caps and duct tape, labeled, sealed in a plastic bag and stored on ice for transport to American Environmental Network (AEN) of Pleasant Hill, California (DHS #1172) under chain of custody. Soil from the remaining tubes was described by the site geologist using the Unified Soil Classification System and was screened for volatile compounds with an Organic Vapor Meter (OVM). The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. After the hydrocarbons were allowed to volatilize, the OVM measured the vapor in the bag through a small hole punched in the bag. OVM readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory.

Drilling equipment was steam-cleaned prior to use, and sampling equipment was washed with a TSP solution between sampling intervals to prevent cross-contamination. Rinsate was contained on-site in sealed and labeled Department of Transportation approved 55-gallon (DOT 17H) drums.

Sediments encountered during drilling consisted primarily of high permeability sand. The boring logs and well construction details are included as Appendix C. Drill cuttings were stockpiled on and covered with plastic sheeting on-site for future disposal by the client.

5.0 ANALYTICAL RESULTS FOR SOIL

The soil sample collected at 3.5-feet bgs was analyzed by AEN for TPH-G and TPH-D by modified EPA Method 8015, BTEX by EPA Method 8020, O&G by EPA Method 5520B&F and VOCs by EPA Method 8010. The analytical results are tabulated in Tables One and Two, and copies of the certified analytical report and chain of custody form are included in Appendix D. No hydrocarbons were detected in the BH-D 3.5' soil sample. 0.021 ppm methylene chloride was detected in the BH-D 3.5' soil sample, although this methylene chloride is likely a laboratory contaminant.

6.0 MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Groundwater monitoring well MW-4 was installed in boring BH-D. The well was constructed with 2-inch diameter, 0.020-inch slotted, flush-threaded, Schedule 40 PVC well screen and blank casing. The well is screened between 3 and 16-feet bgs to monitor the first water bearing zone encountered. Lonestar #3 Monterey sand occupies the annular space between the borehole and the casing from the bottom of the boring to about 0.5-feet above the well screen. A 0.5-foot thick hydrated bentonite layer separates the sand from the overlying cement surface seal. The wellhead is secured with a locking wellplug beneath an at-grade traffic-rated vault.

On October 3, 1994, ASE project geologist Robert Kitay developed monitoring well MW-4 using two episodes of surge-block agitation and evacuation with bailers and an electric PVC pump. Ten well casing volumes of water were removed from the well during development, and evacuation continued until the water was relatively clear. A slight hydrocarbon odor was present in the well during the well development and subsequent sampling. The well yielded approximately 1 gallon per minute during development.

On October 4, 1994, ASE collected groundwater samples from the well. Prior to sampling, monitoring well MW-4 was purged of four well casing volumes of groundwater. The samples were then collected from the well using a pre-cleaned polyethylene bailer. The groundwater samples were

decanted from the bailer into six (6) 40-ml volatile organic analysis (VOA) vials and three (3) 1-liter amber glass bottles. All of the samples were preserved with hydrochloric acid, labeled, placed in protective foam sleeves, and stored on ice for transport to AEN under chain of custody. Well development and sampling purge water were contained in DOT 17H drums and stored on-site for handling by the client at a later date. See Appendix E for a copy of the Field Log.

7.0 GROUNDWATER ELEVATIONS

ASE surveyed the top of casing elevation of the monitoring well MW-4 relative to the elevations of the pre-existing site wells. Depths to groundwater were measured in each well on October 4, 1994 with an electric sounder prior to purging water from any well. Depth to groundwater measurements are presented in Table Three, and groundwater elevation contours are plotted on Figure 3. Groundwater appears to flow to the southeast beneath the site at a gradient of 0.008-feet/foot.

8.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by AEN for TPH-G and TPH-D by modified EPA Method 8015, O&G by EPA Method 5520B&F, BTEX by EPA Method 8020 and VOCs by EPA Method 8010. The analytical results are tabulated in Tables Four and Five, and copies of the certified analytical report and chain of custody form are included in Appendix F. Analytical results indicate that 500 ppb TPH-G, 200 ppb TPH-D, and between 2 and 70 ppb BTEX in the groundwater sample from monitoring well MW-4. No O&G or VOCs were detected in the MW-4 groundwater sample.

9.0 CONCLUSIONS AND RECOMMENDATIONS

It appears that groundwater contamination now extends off-site into High Street. The benzene concentration of 2 ppb in groundwater samples from monitoring well MW-4 exceeded the California Department of Toxic Substances Control (DTSC) maximum contaminant level (MCL) for drinking water. Since monitoring well MW-4 was placed as far into High Street as possible without crossing any utility lines which could act as a conduit for the migration of contamination, any additional investigation activities should include water sampling activities along the utility trench rather than installing additional wells. It appears that some sort of environmental remediation may be required at the site.

10.0 REPORT LIMITATIONS

The results of this investigation represent conditions at the time of the soil and groundwater sampling, at the specific locations at which the samples were collected, and for the specific parameters analyzed for by the laboratory.

It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity to assist you with your environmental needs. Should you have any questions or comments, please feel free to call us at (510) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Robert E. Kitay, R.E.A.
Project Geologist

Attachments: Figures 1 through 3
Tables 1 through 5
Appendices A through F

TABLES

TABLE ONE
Summary of Chemical Analysis of **SOIL** Samples
All results are in parts per million

Boring & Depth	TPH Gasoline	TPH Diesel	Hydrocarbon Oil & Grease	Benzene	Toluene	Ethyl Benzene	Total Xylenes
BH-D 3.5'	<0.2	<1	<10	<0.005	<0.005	<0.005	<0.005
EPA METHOD	5030/ 8015	3550/ 8015	5520E	8020	8020	8020	8020

TABLE TWO
Summary of Chemical Analysis of **BH-D 3.5' SOIL** Sample
Volatile Organic Compounds

Compound	Concentration (parts per million)
Methylene Chloride	21*
Other VOCs	<5

*Suspected laboratory contaminant

TABLE THREE
Summary of Groundwater Well Survey Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	04-06-94	15.00	3.92	11.08
	08-02-94		4.10	10.90
	10-04-94		4.42	10.58
MW-2	04-06-94	14.37	3.02	11.35
	08-02-94		3.32	11.18*
MW-3	04-06-94	14.56	3.51	11.05
	08-02-94		3.68	10.88
	10-04-94		3.97	10.59
MW-4	10-04-94	14.70	4.31	10.39

TABLE FOUR
Summary of Chemical Analysis of **GROUNDWATER** Samples
All results are in **parts per billion**

Sample I.D.	TPH Gasoline	TPH Diesel	Oil & Grease	Benzene	Toluene	Ethyl Benzene	Total Xylenes
MW-1							
04-04-94	80	<50	<500	<0.5	<0.5	0.5	2
08-02-94	60	500	<1,000	<0.5	<0.5	<0.5	<2
MW-2							
04-04-94	150	<50	6,200	0.6	1	2	6
08-04-94	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
MW-3							
04-04-94	1,200	180	<500	3	27	44	230
08-04-94	2,700	<50	<1,000	6	16	70	470
MW-4							
10-04-94	500	200	<1,000	2	19	14	70
EPA METHOD	5030/ 8015	3510/ 8015	5520 B&C	8020	8020	8020	8020

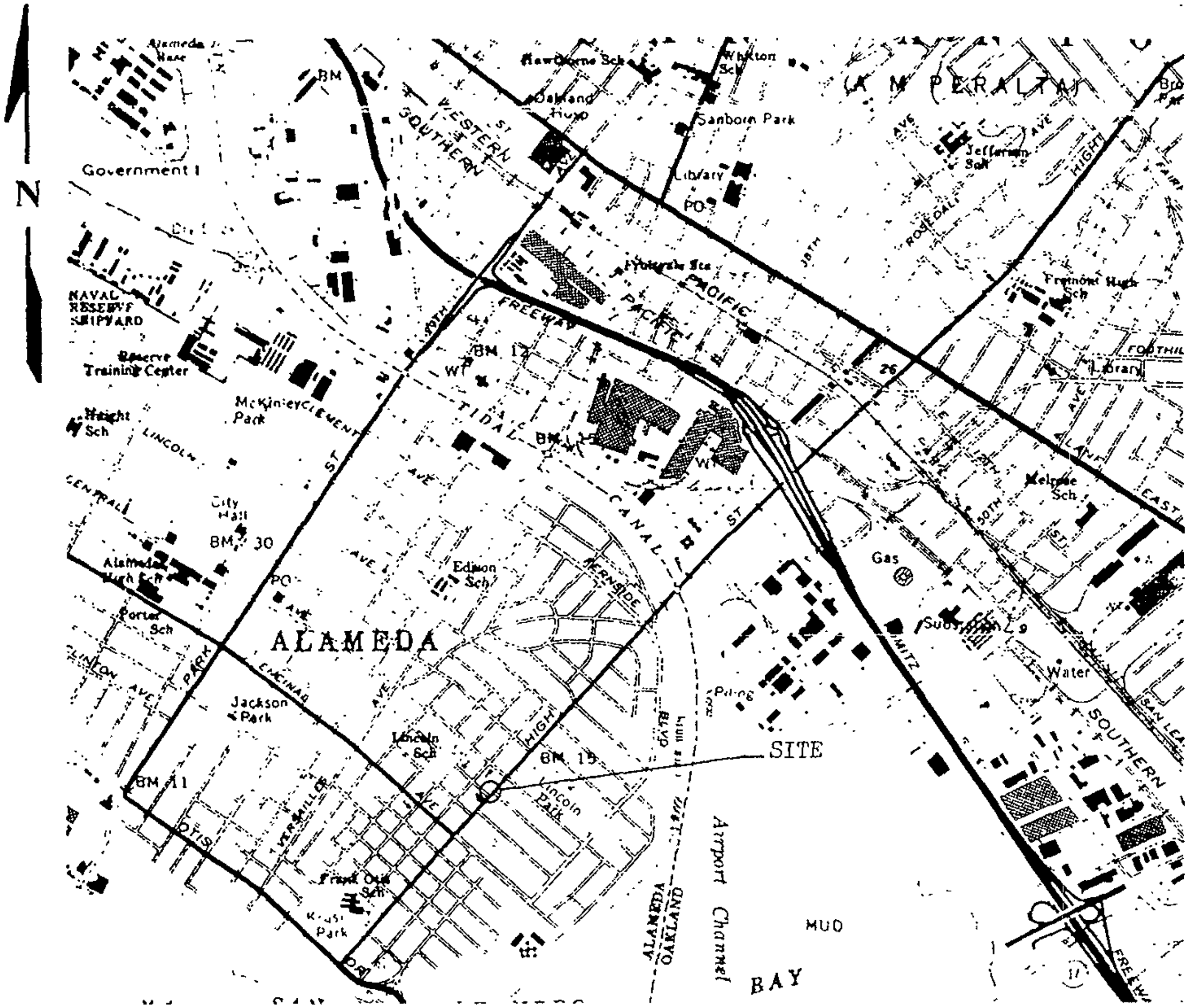
TABLE FIVE

Summary of Chemical Analysis of **GROUNDWATER** Samples
Volatile Organic Compounds
All results in **parts per billion**

Sample I.D.	Date of Sampling	TCE	Other VOCs
MW-1	08-02-94	<0.5	<0.5
MW-2	04-04-94	0.7	<0.5
	08-02-94	NOT SAMPLED DUE TO FLOATING HYDROCARBONS	
MW-3	08-02-94	<0.5	<0.5
MW-4	10-04-94	<0.5	<0.5

TCE = Trichloroethene
VOCs = Volatile organic compounds

FIGURES

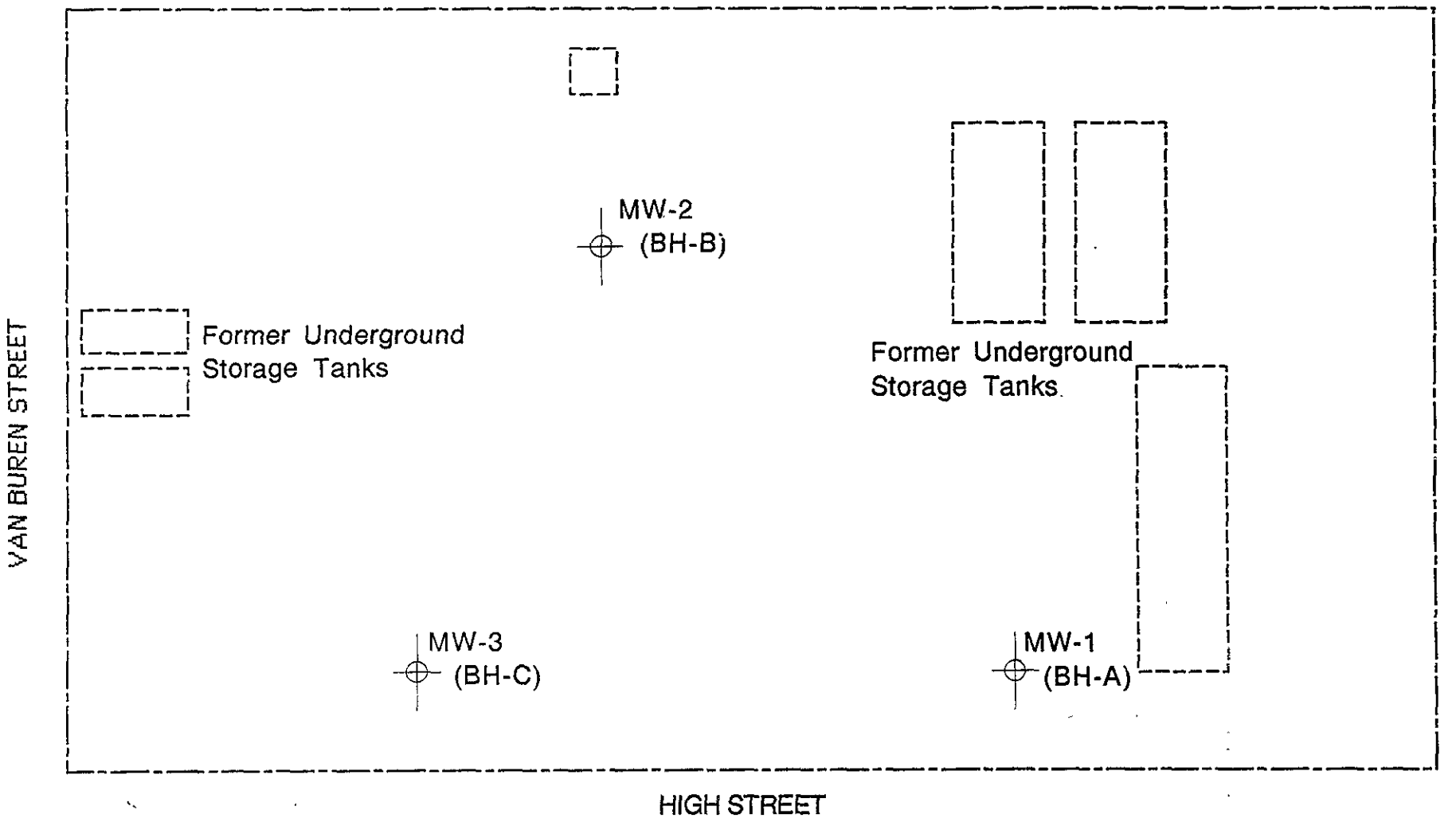


BASE: Oakland East and Oakland West 7.5 minute quadrangle topographic map, dated 1980, scale 1:24,000

SITE LOCATION MAP

Alameda Max's
1357 High Street
Alameda, California

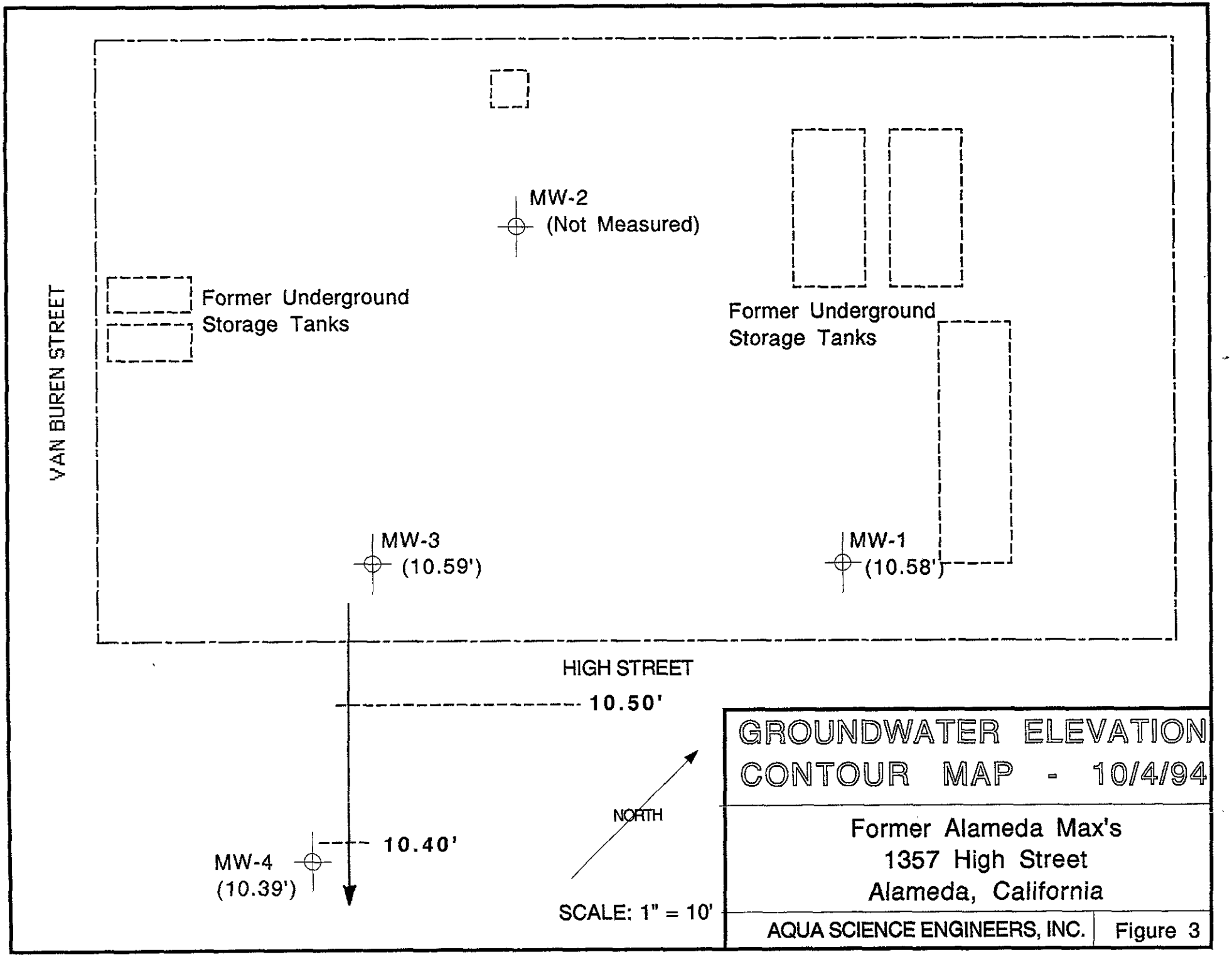
Aqua Science Engineers | Figure 1



MONITORING WELL LOCATION MAP

Former Alameda Max's
1357 High Street
Alameda, California

AQUA SCIENCE ENGINEERS, INC. | Figure 2



GROUNDWATER ELEVATION CONTOUR MAP - 10/4/94

Former Alameda Max's
1357 High Street
Alameda, California

AQUA SCIENCE ENGINEERS, INC. | Figure 3

APPENDIX A

Alameda County Health Care Services Agency
"Direction" Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

June 3, 1994

Mr. James Phillipsen
3111 Marina Drive
Alameda, CA 94501

STID 1702

Re: Investigations at 1357 High Street, Alameda, California

Dear Mr. Phillipsen,

This office has reviewed Aqua Science Engineers' Soil and Ground Water Assessment Project Report, dated April 14, 1994. Elevated levels of soil and ground water contamination were identified from the new well locations. Total Petroleum Hydrocarbons as gasoline (TPHg) was identified in the ground water sample collected from Well MW-3 at 1,200 parts per billion (ppb). Also, elevated levels of Oil & Grease were identified from Well MW-2 at 6,200 ppb.

As stated by Aqua Science Engineers, the Oil & Grease and Diesel contamination identified in Well MW-2 does not appear to be migrating very readily, based on the Non Detect sample results for these constituents in the two other wells. Since Oil & Grease and diesel are heavier hydrocarbons, they generally do not migrate as readily as gasoline in the soil and ground water. At this time, you will be required to include diesel and Oil & Grease analysis for the ground water samples collected from all three well. This is to insure that the Oil & Grease and Diesel are not migrating off site. In addition to the analysis for diesel and Oil & Grease, you will be required to analyze all groundwater samples for TPHg, BTEX, and 8010 constituents.

Although diesel and Oil & Grease may not migrate readily through the ground water, gasoline has been known to migrate fairly readily, especially in the type of sandy soil observed at the site. Due to the fact that elevated levels of TPHg and BTEX have been identified in Well MW-3, located downgradient from the former tanks and near the property boundary, this office is concerned that contaminants are migrating off site. Based on these facts, and Article 11 Title 23 California Code of Regulations, you are required to address the delineation of the ground water contaminant plume downgradient of Well MW-3. A work plan addressing this work shall be submitted to this office **within 90 days** of the date of this letter.

Thank you for your cooperation. If you have any questions or comments, please contact me at (510) 271-4530.

Sincerely,

Juliet Shin
Hazardous Materials Specialist

cc: David Allen
Aqua Science Engineers, Inc.
2411 Old Crow Canyon Rd. #4
San Ramon, CA 94583

Edgar Howell-File(JS)

APPENDIX B

Permits

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT
1357 High Street
Alameda, California

CLIENT
Name James A. Phillipsen
Address 311 Maring Drive Voice (510) 523-8964
City Alameda, CA Zip 94501

APPLICANT
Name Aqua Science Engineers
Fax (510) 837-4853
Address 2411 old crow canyon Rd. #4 Voice (510) 820-9391
City San Ramon, CA Zip 94583

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 582676

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth 2 ft. Number 1

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum
Hole Diameter ___ in. Depth ___ ft.

ESTIMATED STARTING DATE 9-27-94
ESTIMATED COMPLETION DATE 10-7-94

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] Date 9-22-94

FOR OFFICE USE

PERMIT NUMBER 94611
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 23 Sep 9
Wyman Hong

01092

CITY OF ALAMEDA
CENTRAL PERMIT OFFICE
2263 SANTA CLARA AVE., ROOM 204
ALAMEDA, CA 94501

415-522-4100

APPLICATION FOR PERMIT TO EXCAVATE IN THE RIGHT-OF-WAY OF THE CITY OF ALAMEDA

_____ SERVICE NUMBER

DATE 9-21 19 94

Application is hereby made for a permit to excavate on the Southeast side of

High Street Ave. St. 10 - 100 feet northeast of

Van Buren Street

House No. _____ Owner James A. Phillipsen

For the purpose of Installing groundwater monitoring well

Name of Applicant Aqua Science Engineers Address 2411 Old Crow Canyon Rd. #4
San Ramon, CA 94583

Phone 820-9391

☐ VERBAL APPROVAL
Date _____
By _____
Reasons: _____

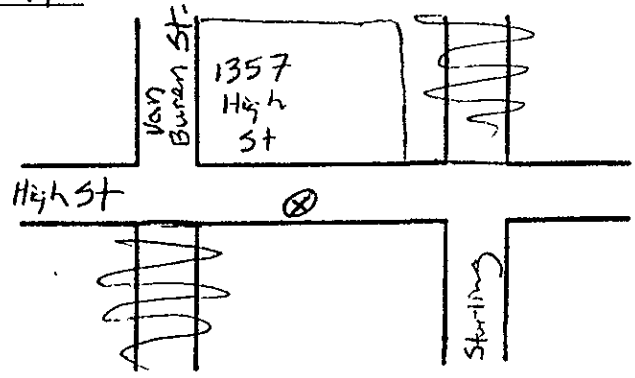


Diagram of Proposed Work

FOR OFFICE USE ONLY

This permit to be Inspected by ☑ ENGINEERING DIVISION ☐ MAINTENANCE DIVISION

☐ ALL STRIPING, PAINTED GRAPHICS AND PAVEMENT MARKERS DAMAGED OR DESTROYED BY STREET EXCAVATION WORK ARE TO BE RESTORED BY THE PERMITEE.

☑ ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT OF WAY MUST HAVE BARRICADES WITH FLASHERS FOR NIGHT TIME PROTECTION.

☑ ALL WORK INVOLVED IS TO BE DONE IN ACCORDANCE WITH STANDARD CITY OF ALAMEDA SPECIFICATIONS AND CITY OF ALAMEDA PRACTICES ALL TO THE SATISFACTION OF THE CITY ENGINEER. INSPECTION CHARGES SHALL BE PAID TO THE CITY MONTHLY. ACCEPTANCE OF THIS PERMIT CONSTITUTES ACCEPTANCE OF THE CONDITIONS INCLUDED.

Robert E. Kitay — SIGNATURE — 9-21-94 — DATE

☐ CONCRETE PERMIT REQUIRED

☐ NO OPEN TRENCH CUTTING

☐ STATE PERMIT REQUIRED

_____ CLEAR _____ SIGNATURE _____ DATE

☐ SPECIAL CONDITIONS _____

RECEIVED DATE 9/21/94 SIGNED David S Moore

APPROVAL DATE 9/22/94 SIGNED _____

ISSUED DATE 9/28/94 SIGNED David S Moore

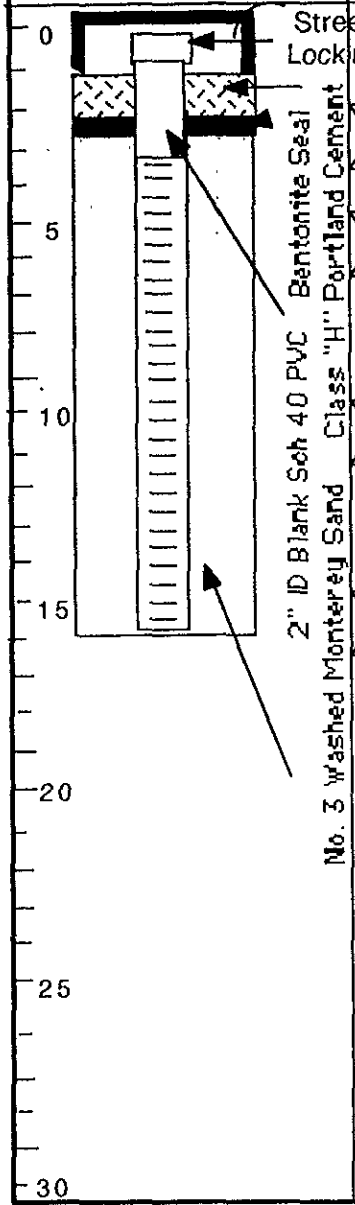
PERMIT # 94-0130

APPENDIX C

Boring Log and Well Construction Details

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS		Monitoring Well MW-4
Project Name: Former Alameda Max's	Project Location: 1357 High Street, Alameda, CA	Page 1 of 1
Driller: Soils Exploration Services	Type of Rig: CME 55	Type and Size of Auger: 8-inch O.D. Hollow-stem
Logged By: Robert E. Kitay	Date Drilled: September 30, 1994	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA	
Depth of Water First Encountered: ≈ 4.0'	Total Depth of Well Completed: 16.0'
Static Depth of Water in Well: 4.31'	Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC
Total Depth of Boring: 16.0'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2" I.D., Calif. Split-barrel



SOIL/ROCK SAMPLE DATA					DESCRIPTION OF LITHOLOGY
Interval	Blow Ct.	Time	Graphic Log	Depth in Feet	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
				0	Asphaltic Concrete and Roadbase
	7				SAND (SP); brown; loose; damp; 95% fine sand; 5% silt; high estimated K; no odor
	8				
	7	11:45			moist at 3'
	6			5	blue; wet; slight hydrocarbon odor at 5'
	1				
	1				
	1				
	2				
	7			10	
	10				
	14				
	16				
	12			15	
	16				
	18				
				20	End of boring at 16.0'
				25	
				30	

APPENDIX D

Analytical Report and Chain of Custody Forms
For Soil Samples

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

AQUA SCIENCE ENGINEERS, INC
2411 OLD CROW CANYON RD. #4
SAN RAMON, CA 94583

ATTN: ROBERT KITAY
CLIENT PROJ. ID: 2607
CLIENT PROJ. NAME: ALAMEDA MAX'S

REPORT DATE: 10/21/94

DATE(S) SAMPLED: 09/30/94

DATE RECEIVED: 10/03/94

AEN WORK ORDER: 9410005

PROJECT SUMMARY:

On October 3, 1994, this laboratory received 1 soil sample(s).

Client requested samples be analyzed for organic parameters. Results of analysis are summarized on the following page(s).

Please see quality control report for a summary of QC data pertaining to this project.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

AQUA SCIENCE ENGINEERS, INC.

AEN JOB NO: 9410005
DATE SAMPLED: 09/30/94
DATE RECEIVED: 10/03/94
CLIENT PROJ. ID: 2607

Client Sample Id	AEN Lab Id	Purgeable Hydrocarbons as Gasoline (mg/kg)	Extractable Hydrocarbons as Diesel (mg/kg)	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)
BH-D 3.5'	01	ND	ND	20	ND	ND	ND	ND	ND
Reporting Limit		0.2	1	10	10	0.005	0.005	0.005	0.005
EPA Method:		5030 GCFID	3550 GCFID	5520E	5520F	8020	8020	8020	8020
Date Extracted:		NA	10/10/94	10/07/94	10/07/94	NA	NA	NA	NA
Date Analyzed:		10/11/94	10/11/94	10/07/94	10/07/94	10/11/94	10/11/94	10/11/94	10/11/94

NA = Not Applicable
ND = Not Detected

AQUA SCIENCE ENGINEERS, INC

SAMPLE ID: BH-D 3.5'
AEN LAB NO: 9410005-01
AEN WORK ORDER: 9410005
CLIENT PROJ. ID: 2607

DATE SAMPLED: 09/30/94
DATE RECEIVED: 10/03/94
REPORT DATE: 10/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5	ug/kg	10/11/94
Bromoform	75-25-2	ND	5	ug/kg	10/11/94
Bromomethane	74-83-9	ND	5	ug/kg	10/11/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	10/11/94
Chlorobenzene	108-90-7	ND	5	ug/kg	10/11/94
Chloroethane	75-00-3	ND	5	ug/kg	10/11/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	5	ug/kg	10/11/94
Chloroform	67-66-3	ND	5	ug/kg	10/11/94
Chloromethane	74-87-3	ND	5	ug/kg	10/11/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	10/11/94
1,2-Dichlorobenzene	95-50-1	ND	5	ug/kg	10/11/94
1,3-Dichlorobenzene	541-73-1	ND	5	ug/kg	10/11/94
1,4-Dichlorobenzene	106-46-7	ND	5	ug/kg	10/11/94
Dichlorodifluoromethane	75-71-8	ND	5	ug/kg	10/11/94
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	10/11/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	10/11/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	10/11/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	10/11/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	10/11/94
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	10/11/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	10/11/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	10/11/94
Methylene Chloride	75-09-2	21 *	5	ug/kg	10/11/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	10/11/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	10/11/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	10/11/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	10/11/94
Trichloroethene	79-01-6	ND	5	ug/kg	10/11/94
Trichlorofluoromethane	75-69-4	ND	5	ug/kg	10/11/94
1,1,2Trichlorotrifluoroethane	76-13-1	ND	5	ug/kg	10/11/94
Vinyl Chloride	75-01-4	ND	5	ug/kg	10/11/94

Methylene chloride is a suspected laboratory contaminant.

ND = Not detected at or above the reporting limit
* = Value above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9410005

CLIENT PROJECT ID: 2607

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration that can reliably be determined during routine laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix and method dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

AEN JOB NO: 9410005
DATE EXTRACTED: 10/10/94
INSTRUMENT: C
MATRIX: SOIL

Surrogate Standard Recovery Summary
Method: EPA 3550 GCFID

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
10/11/94	BH-D 3.5'	01	81

Current QC Limits

Surrogate	Percent Recovery
n-Pentacosane	45-120

QUALITY CONTROL DATA

AEN JOB NO: 9410005
DATE EXTRACTED: 10/10/94
DATE ANALYZED: 10/11/94
SAMPLE SPIKED: 9410005-01
INSTRUMENT: C
MATRIX: SOIL

Matrix Spike Recovery Summary
Method: EPA 3550 GCFID

Analyte	Spike Added (mg/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	31.0	105	3	44-108	13

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

AEN JOB NO: 9410005
DATE EXTRACTED: 10/07/94
DATE ANALYZED: 10/07/94
SAMPLE SPIKED: LCS
INSTRUMENT: IR
MATRIX: SOIL

Laboratory Control Sample
Method: SM 5520

Analyte	Spike Added (mg/kg)	Percent Recovery	QC Limits Percent Recovery
Oil	261	102	69-113

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

AEN JOB NO: 9410005
INSTRUMENT: E
MATRIX: SOIL

Surrogate Standard Recovery Summary
Method: EPA 8020, 5030 GCFID

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
10/11/94	BH-D 3.5'	01	104

Current QC Limits

Surrogate	Percent Recovery
Fluorobenzene	84-117

QUALITY CONTROL DATA

AEN JOB NO: 9410005
DATE ANALYZED: 10/11/94
SAMPLE SPIKED: 9410005-01
INSTRUMENT: E
MATRIX: SOIL

Matrix Spike Recovery Summary
Method: EPA 8020, 5030 GCFID

Analyte	Spike Added (ug/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	35.5	103	6	80-130	26
Toluene	95.7	103	8	75-129	27
Hydrocarbons as Gasoline	1000	93	10	66-128	34

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

AEN JOB NO: 9410005
INSTRUMENT: G
MATRIX: SOIL

Surrogate Standard Recovery Summary
Method: EPA 8010

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Bromochloro-methane	1-Bromo-3-chloro-propane
10/11/94	BH-D 3.5'	01	98	88

Current QC Limits

Surrogate	Percent Recovery
Bromochloromethane	62-137
1-Bromo-3-chloropropane	53-143

QUALITY CONTROL DATA

AEN JOB NO: 9410005
DATE ANALYZED: 10/06/94
SAMPLE SPIKED: 9409281-34
INSTRUMENT: G
MATRIX: SOIL

Matrix Spike Recovery Summary
Method: EPA 8010

Analyte	Spike Added (ug/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
1,1-Dichloroethene	500	96	2	48-111	12
Trichloroethene	500	98	<1	63-129	8
Chlorobenzene	500	89	<1	56-114	13

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-7, S-B

9410005

Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4,
San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

Chain of Custody

DATE 7-30-94 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)

Robert C. Kitay

PROJECT NAME Alameda Max's NO. 2607

ADDRESS 1357 High Street, Alameda, CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

	SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GASOLINE (EPA 5030/8015)	TPH-GASOLINE/BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUETRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B&F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC-CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY					
1A	BH-D 3.5'	9/30	11:40	Soil	1		X	X		X			X										

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
Robert C. Kitay	12:15	14:50	Denise Harrington	
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
Robert E. Kitay	NEIL HERRICK 10/3/94	NEIL HERRICK 10/3/94	D. HARRINGTON	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company- AEN	Company-	Company- AEN 10/3/94 1450	

APPENDIX E

Well Sampling Field Log

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Former Alameda Maxs, High St., Alameda
Job #: 2545 Date of sampling: 10-4-94
Well Name: MW-4 Sampled by: RK
Total depth of well (feet): 13.12 Well diameter (inches): 2
Depth to water before sampling (feet): 4.31
Thickness of floating product if any: None
Depth of well casing in water (feet): 8.81
Number of gallons per well casing volume (gallons): 1.5
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6
Equipment used to purge the well: 12 volt PVC pump
Time Evacuation Began: 10:40 Time Evacuation Finished: 10:50
Approximate volume of groundwater purged: 6 gals
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 11:45
Depth to water at time of sampling: —
Percent recovery at time of sampling: —
Samples collected with:
Sample color: None (clear) Odor: slight HC
Description of sediment in sample: None

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
Initial	68.1	7.65	1260
1.5 gals	67.2	7.42	1210
3 gals	67.2	7.36	1210
4.5 gals	67.1	7.36	1220
6 gals	67.1	7.36	1210

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-4	3	40-ml VOA vials	HCl	Yes	TPH-G/BTEX
↓	3	↓	↓	↓	EPA 8010
↓	2	1-liter amber glass	↓	↓	TPH-D
↓	1	↓	↓	↓	O&G

APPENDIX F

Analytical Report and Chain of Custody Forms
For Groundwater Samples

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

AQUA SCIENCE ENGINEERS, INC
2411 OLD CROW CANYON RD. #4
SAN RAMON, CA 94583

ATTN: ROBERT KITAY
CLIENT PROJ. ID: 2607
CLIENT PROJ. NAME: ALAMEDA MAX'S

REPORT DATE: 10/21/94

DATE(S) SAMPLED: 10/04/94

DATE RECEIVED: 10/05/94

AEN WORK ORDER: 9410041

PROJECT SUMMARY:

On October 5, 1994, this laboratory received 1 water sample(s).

Client requested samples be analyzed for organic parameters. Results of analysis are summarized on the following page(s).

Please see quality control report for a summary of QC data pertaining to this project.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

AQUA SCIENCE ENGINEERS, INC.

AEN JOB NO: 9410041
DATE SAMPLED: 10/04/94
DATE RECEIVED: 10/05/94
CLIENT PROJ. ID: 2607

Client Sample Id	AEN Lab Id	Purgeable Hydrocarbons as Gasoline (ug/L)	Extractable Hydrocarbons as Diesel (ug/L)	Oil & Grease (ug/L)	Hydrocarbons (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
MW-4	01	500	200	ND	ND	2	19	14	70
Reporting Limit		50	50	1000	1000	0.5	0.5	0.5	0.5
EPA Method:		5030 GCFID	3510 GCFID	5520B	5520F	8020	8020	8020	8020
Date Extracted:		NA	10/11/94	10/10/94	10/10/94	NA	NA	NA	NA
Date Analyzed:		10/12/94	10/11/94	10/10/94	10/10/94	10/12/94	10/12/94	10/12/94	10/12/94

NA = Not Applicable
ND = Not Detected

AQUA SCIENCE ENGINEERS, INC

SAMPLE ID: MW-4
AEN LAB NO: 9410041-01
AEN WORK ORDER: 9410041
CLIENT PROJ. ID: 2607

DATE SAMPLED: 10/04/94
DATE RECEIVED: 10/05/94
REPORT DATE: 10/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/07/94
Bromoform	75-25-2	ND	0.5	ug/L	10/07/94
Bromomethane	74-83-9	ND	0.5	ug/L	10/07/94
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/07/94
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/07/94
Chloroethane	75-00-3	ND	0.5	ug/L	10/07/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/07/94
Chloroform	67-66-3	ND	0.5	ug/L	10/07/94
Chloromethane	74-87-3	ND	0.5	ug/L	10/07/94
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/07/94
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/07/94
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/07/94
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/07/94
Dichlorodifluoromethane	75-71-8	ND	0.5	ug/L	10/07/94
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/07/94
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/07/94
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/07/94
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/07/94
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/07/94
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/07/94
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/07/94
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/07/94
Methylene Chloride	75-09-2	ND	0.5	ug/L	10/07/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/07/94
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/07/94
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/07/94
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/07/94
Trichloroethene	79-01-6	ND	0.5	ug/L	10/07/94
Trichlorofluoromethane	75-69-4	ND	0.5	ug/L	10/07/94
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/07/94
Vinyl Chloride	75-01-4	ND	0.5	ug/L	10/07/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9410041

CLIENT PROJECT ID: 2607

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration that can reliably be determined during routine laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix and method dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

AEN JOB NO: 9410041
DATE EXTRACTED: 10/10/94
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 3510 GCFID

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
10/11/94	MW-4	01	90

Current QC Limits

Surrogate	Percent Recovery
n-Pentacosane	30-120

QUALITY CONTROL DATA

AEN JOB NO: 9410041
DATE EXTRACTED: 10/06/94
DATE ANALYZED: 10/08/94
SAMPLE SPIKED: DI WATER
INSTRUMENT: C
MATRIX: WATER

Method Spike Recovery Summary
Method: EPA 3510 GCFID

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	1.55	91	2	65-103	12

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

AEN JOB NO: 9410041
DATE EXTRACTED: 10/03/94
DATE ANALYZED: 10/03/94
INSTRUMENT: GRAVIMETRIC

Method Spike Recovery Summary
Method: SM 5520

Analyte	Spike Added (mg/L)	Duplicate Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Oil	89.5	86.9	96	<1	90-102	5

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

AEN JOB NO: 9410041
INSTRUMENT: F
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 8020, 5030 GCFID

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
10/12/94	MW-4	01	96

Current QC Limits

Surrogate	Percent Recovery
Fluorobenzene	86-110

QUALITY CONTROL DATA

AEN JOB NO: 9410041
DATE ANALYZED: 10/11/94
SAMPLE SPIKED: LCS
INSTRUMENT: F
MATRIX: WATER

Laboratory Control Sample
Method: EPA 8020, 5030 GCFID

Analyte	Spike Added (ug/L)	Percent Recovery	QC Limits Percent Recovery
Benzene	18.5	92	69-108
Toluene	50.4	93	70-106
Hydrocarbons as Gasoline	500	76	69-110

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

AEN JOB NO: 9410041
INSTRUMENT: G
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 8010

Date Analyzed	Client Id.	Lab Id.	Percent Recovery: Bromochloro-methane	Percent Recovery: 1-Bromo-3-chloro-propane
10/07/94	MW-4	01	104	107

Current QC Limits

Surrogate	Percent Recovery
Bromochloromethane	78-153
1-Bromo-3-chloropropane	74-143

QUALITY CONTROL DATA

AEN JOB NO: 9410041
DATE ANALYZED: 10/06/94
SAMPLE SPIKED: 9410036-01
INSTRUMENT: G
MATRIX: WATER

Matrix Spike Recovery Summary
Method: EPA 8010

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
1,1-Dichloroethene	50	80	2	40-130	18
Trichloroethene	50	87	<1	67-136	17
Chlorobenzene	50	85	1	59-123	15

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

K-1,5-1
K-3,5-1

941004

Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4,
San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

Chain of Custody

DATE 10-4-94 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)
Robert C. Kitay (510) 820-2391

PROJECT NAME Former Alameda Movie NO. 2607
ADDRESS 1357 High Street, Alameda, CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH- GASOLINE (EPA 5030/8015)	TPH- GASOLINE/BTEX (EPA 5030/8015-8020)	TPH- DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUETRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B&F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY					
DIA-I MW-4	10/4	11:45	Water	9		X	X		X			X										

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY	RECEIVED BY LABORATORY:	COMMENTS:
Robert C. Kitay 9:55	Michael McMillan 9:55	Michael McMillan 12:45	Gina Gillespie 1245	
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
Robert E. Kitay 10-5-94	Michael McMillan 10-5-94	10-5-94	Gina Gillespie 10-5-94	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company- AEN	Company-	Company- AEN	