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March 31, 1995

QUARTERLY GROUNDWATER MONITORING REPORT  
MARCH 13, 1995 GROUNDWATER SAMPLING  
ASE JOB NO. 2750  
at  
2425 Central Avenue  
Alameda, California

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



A handwritten signature in black ink, appearing to read "David M. Schultz", written over the bottom portion of the professional seal.

WE'VE MOVED TO  
2411 OLD CROW CANYON RD. #4  
SAN RAMON, CA 94583  
510-820-9391

## 1.0 INTRODUCTION

This report outlines the methods and findings of Aqua Science Engineers, Inc. (ASE)'s quarterly groundwater sampling at the property located at 2425 Central Avenue in Alameda, California (*Figures 1 and 2*).

## 2.0 GROUNDWATER SAMPLING

On March 13, 1995, ASE measured the depth to groundwater in the site well using an electric water level sounder. The well was then purged of four well casing volumes of groundwater using a pre-cleaned PVC pump. The pH, temperature and conductivity of the purge water were monitored during evacuation, and groundwater samples were not collected until these parameters stabilized. Groundwater samples were then collected from the well with a disposable polyethylene bailer. The samples were decanted from the bailer into four (4) 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, labeled, placed in protective foam sleeves, and stored on wet ice for transport to American Environmental Network (AEN) of Pleasant Hill, California (CSDHS #1172) under chain of custody. No odors were present in the groundwater at the time of the sampling.

Well sampling purge water was contained in DOT 17H drums and stored on-site for handling by the client at a later date. See Appendix B for a copy of the well sampling field log.

## 3.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by AEN for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 8015, benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8020 and dissolved lead by EPA Method 6010. The analytical results are tabulated below in Table One, and the certified analytical report and chain of custody form are included in Appendix A. No hydrocarbons were detected in the groundwater samples.

**TABLE ONE**  
**Summary of Chemical Analysis of GROUNDWATER Samples**  
**All Results are in parts per billion**

Well I.D.	Date of Sampling	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Dissolved Lead
MW-1	03-13-95	<50	0.6	2	<0.5	2	<40
EPA METHOD		5030/ 8015	8020	8020	8020	8020	6010

#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

Only very low hydrocarbon concentrations were detected in the groundwater samples collected from monitoring well MW-1 this quarter. All of these trace concentrations are below the California Department of Toxic Substances Control (DTSC) maximum contaminant levels (MCLs) for drinking water. ASE recommends continuing the quarterly groundwater monitoring program.

#### 5.0 REPORT LIMITATIONS

The results of this investigation represent conditions at the time of the 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,

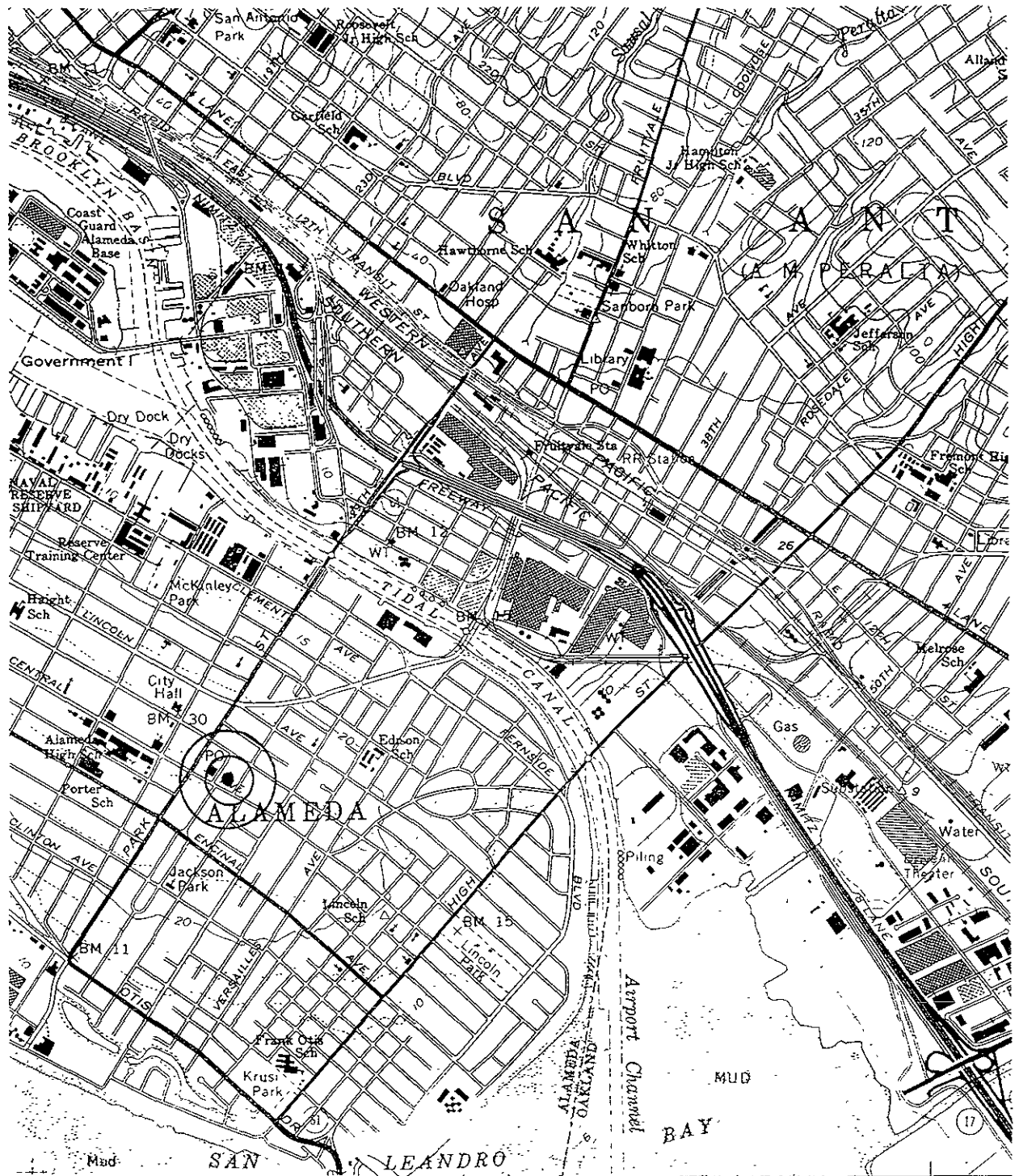
AQUA SCIENCE ENGINEERS, INC.

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



Attachments: Figures 1 and 2  
Appendices A and B

cc: Ms. Erma Delluchi  
Ms. Juliet Shin, ACHCSA  
Mr. Kevin Graves, RWQCB, San Francisco Bay Region



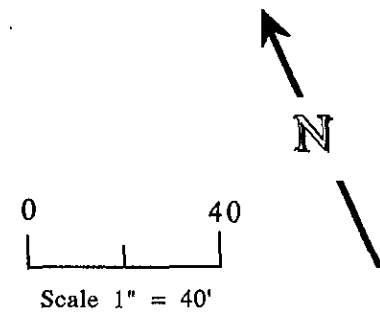
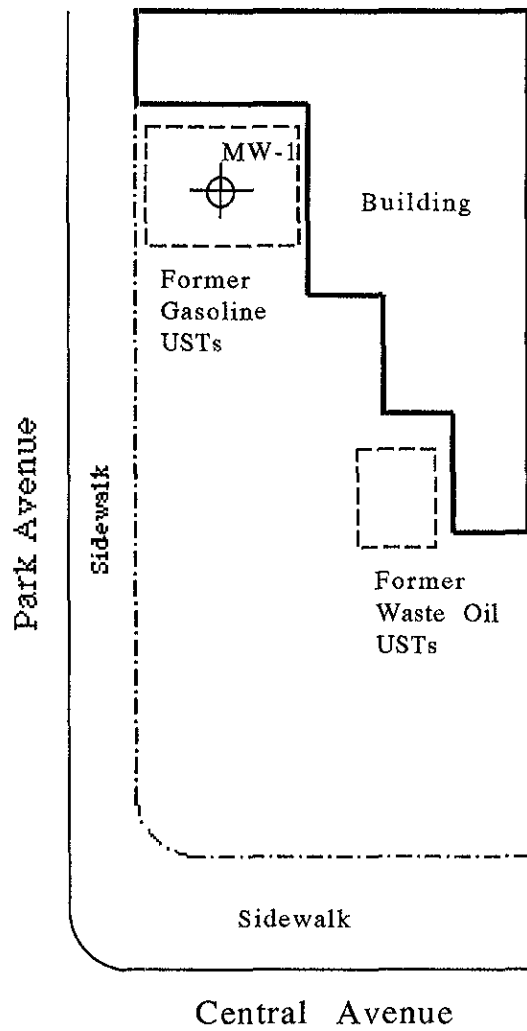
## SITE LOCATION MAP

Delluchi Property  
 2425 Central Avenue  
 Alameda, California

Aqua Science Engineers

Figure 1

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



Monitoring Well Location Map	
DELLUCHI PROPERTY 2425 CENTRAL AVENUE ALAMEDA, CALIFORNIA	
AQUA SCIENCE ENGINEERS	Figure 2

# **APPENDIX A**

Analytical Report and Chain of Custody Form

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

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

ATTN: ROBERT KITAY  
CLIENT PROJ. ID: DELLUCHI

REPORT DATE: 03/30/95  
DATE(S) SAMPLED: 03/13/95  
DATE RECEIVED: 03/14/95  
AEN WORK ORDER: 9503234

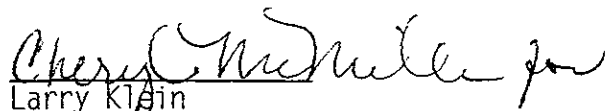
### PROJECT SUMMARY:

On March 14, 1995, this laboratory received 1 water sample(s).

Client requested sample(s) be analyzed for inorganic and 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.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

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

  
Larry Klein  
Laboratory Director



AQUA SCIENCE ENGINEERS, INC.

AEN JOB NO: 9503234  
 DATE SAMPLED: 03/13/95  
 DATE RECEIVED: 03/14/95  
 CLIENT PROJ. ID: DELLUCHI

Client Sample Id.	AEN Lab Id.	Purgeable Hydrocarbons as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Total Xylenes (ug/L)
MW-1	01	ND	0.6	2	ND	2
Reporting Limit:		50	0.5	0.5	0.5	2
EPA Method:		5030 GCFID	8020	8020	8020	8020

Instrument: H

Date Analyzed: 03/22/95

ND = Not Detected

## AQUA SCIENCE ENGINEERS, INC

SAMPLE ID: MW-1  
AEN LAB NO: 9503234-01  
AEN WORK ORDER: 9503234  
CLIENT PROJ. ID: DELLUCHI

DATE SAMPLED: 03/13/95  
DATE RECEIVED: 03/14/95  
REPORT DATE: 03/30/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/14/95
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	03/20/95
Lead	EPA 6010	ND	0.04	mg/L	03/21/95

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

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9503234

CLIENT PROJECT ID: DELLUCHI

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 routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte 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

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9503234  
 INSTRUMENT: H  
 MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
03/22/95	MW-1	01	101
QC Limits:			92-109

DATE ANALYZED: 03/22/95  
 SAMPLE SPIKED: 9503235-01  
 INSTRUMENT: H

## Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	18.2	92	11	85-109	17
Toluene	52.8	91	10	87-111	16
Hydrocarbons as Gasoline	500	89	12	66-117	19

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

## QUALITY CONTROL DATA

AEN JOB NO: 9503234  
SAMPLE SPIKED: DI WATER  
DATE ANALYZED: 03/21/95  
MATRIX: WATER

## Method Spike Recovery Summary

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Analyte	Inst./ Method	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
					Percent Recovery	RPD
Pb, Lead	ICP/6010	0.5	104	<1	94-115	6

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

\*\*\* END OF REPORT \*\*\*



# **APPENDIX B**

## **Well Sampling Field Log**



# WELL SAMPLING FIELD LOG

Project Name and Address: Delluchi, 2425 Central Avenue, Alameda, CA  
 Job #: 2844 Date of sampling: 3-13-95  
 Well Name: MW-1 Sampled by: PK  
 Total depth of well (feet): 18.90 Well diameter (inches): 2  
 Depth to water before sampling (feet): 6.58  
 Thickness of floating product if any: None  
 Depth of well casing in water (feet): 12.32  
 Number of gallons per well casing volume (gallons): 2  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 8  
 Equipment used to purge the well: 12 volt PVC pump  
 Time Evacuation Began: 12:20 Time Evacuation Finished: 12:30  
 Approximate volume of groundwater purged: 8 gallons  
 Did the well go dry?: No After how many gallons: —  
 Time samples were collected: 12:40  
 Depth to water at time of sampling: 6.67  
 Percent recovery at time of sampling: 99%  
 Samples collected with: Disposable polyethylene bailer  
 Sample color: None Odor: None  
 Description of sediment in sample: small amount of fine brown silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>Initial</u>	<u>59.8</u>	<u>7.23</u>	<u>411</u>
<u>2 gal</u>	<u>61.9</u>	<u>7.20</u>	<u>576</u>
<u>4 gal</u>	<u>62.9</u>	<u>7.17</u>	<u>606</u>
<u>6 gal</u>	<u>63.2</u>	<u>7.12</u>	<u>590</u>
<u>8 gal</u>	<u>63.3</u>	<u>7.14</u>	<u>590</u>

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-1</u>	<u>3</u>	<u>40-ml VOA vials</u>	<u>Hi</u>	<u>Yes</u>	<u>TPH-6/13TEK</u>
<u>MW-1</u>	<u>1</u>	<u>500-ml poly bottle</u>	<u>No</u>	<u>Yes</u>	<u>Dissolved Pb</u>