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aqua science engineers inc.

HAZMAT

94 JUN 13 PM 2:39

June 10, 1994

Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, California 94621

ATTENTION: Mr. Scott Seery
Hazardous Materials Specialist

SUBJECT: QUARTERLY GROUNDWATER MONITORING REPORT
Former Ramos Property
5293 Crow Canyon Road
Castro Valley, CA

Mr. Seery:

Aqua Science Engineers, Inc. (ASE) is pleased to submit the subject report. As you will find, ASE has also addressed the concerns as reported by you in your letter dated July 26, 1993 to Mr. Mel Gerton.

Currently ASE and the new property ownership is in the process of backfilling the former tank excavation with clean imported soils. A report regarding these activities and any proposed further work will be prepared as soon as possible. The new property ownership is anxious to file for site closure, and look forward to hearing your comments regarding the subject report.

If any questions or comments arise, please feel free to call me at (510) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

David Allen
Project Manager

cc: Mr. Mel Gerton, Property Ownership representative
Mr. Rich Hiett, RWQCB

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

Aqua Science Engineers Inc., CA 94583 • 415-820-9391 • FAX 415-837-4853

aqua science engineers inc.

June 8, 1994

QUARTERLY GROUNDWATER MONITORING REPORT
April 13, 1994 GROUNDWATER SAMPLING
at
The Former Ramos Property
5293 Crow Canyon Road
Castro Valley, California

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

REGISTERED PROFESSIONAL ENGINEER
DAVID M. SCHULTZ
No. 38738
Exp 4-95
CIVIL
STATE OF CALIFORNIA

1.0 INTRODUCTION

Site Location (Site), See Figure 1
Former Ramos Property
5293 Crow Canyon Road
Castro Valley, California

Property Owner
Former Ramos Property Ownership
Mr. Mel Gerten, ownership representative
829 Redwood Road
Danville, CA 94506

Environmental Consulting Firm
Aqua Science Engineers, Inc. (ASE)
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
Contact: David Allen, Project Manager
(510) 820-9391

Agency Review
Alameda County Health Care Services Agency (ACHCSA)
80 Swan Way, Room 350
Oakland, CA 94621
Contact: Mr. Scott O. Seery
(510) 271-4530

California Regional Water Quality Control Board (RWQCB),
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612
Contact: Mr. Richard Hiett
(510) 286-4359

The following is a report detailing the results of the April 13, 1994, groundwater sampling at the above referenced site. This sampling was conducted as required by the RWQCB and the ACHCSA. ASE has prepared this report on behalf of the Former Ramos Property Ownership. This report also presents professional interpretations of issues raised by Mr. Scott Seery of the ACHCSA in a letter dated July 26, 1993.

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On April 13, 1994, ASE measured the depth to water in each site well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. No free-floating hydrocarbons or sheen were observed on the surface of any site well. Depth to groundwater measurements for this and previous sampling periods are presented below in Table One.

TABLE ONE
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	08-21-91	303.21	15.96	287.25
	11-23-91		16.33	286.88
	01-28-92		16.24	286.97
	04-13-94		15.34	287.87
MW-2	08-21-91	303.54	9.48	294.06
	11-23-91		10.05	293.49
	01-28-92		9.95	293.59
	04-13-94		7.24	296.30
MW-3	08-21-91	304.66	14.57	290.09
	11-23-91		16.28	288.38
	01-28-92		16.26	288.40
	04-13-94		13.86	290.80
MW-4	08-21-91	303.71	13.92	289.79
	11-23-91		15.47	288.24
	01-28-92		15.09	288.62
	04-13-94		10.53	293.18
MW-5	08-21-91	300.78	10.10	290.68
	11-23-91		10.10	290.68
	01-28-92		9.91	290.87
	04-13-94		9.72	291.06

Groundwater elevation contours for all four sampling periods are presented on Figures 2 through 5. Groundwater flowed to the south or southwest during all four sampling periods. The gradient was approximately 0.07 feet/foot.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

Prior to the April 13, 1994 sampling, each monitoring well was purged of at least four well casing volumes of water using pre-cleaned PVC bailers. No hydrocarbon odors were present during the purging of the wells. Groundwater samples were collected from each well using disposable polyethylene bailers. The samples were decanted from the bailers into appropriate sample containers. The samples were preserved with hydrochloric acid where required, capped, labeled and placed into an ice chest containing wet ice for transport to American Environmental Network (AEN) of Pleasant Hill, California (CDHS #1172) under chain-of-custody.

The analytical results for this and previous quarters are presented below as Tables Two and Three, and the certified laboratory report and chain-of-custody form are included as Appendix A.

The well purge water was placed in 55-gallon steel 17H drums, labeled, and left on site for temporary storage.

The groundwater samples from all site wells were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 8015/5030, benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8020, pH by EPA Method 9040 and conductivity by EPA Method 120.1. The samples from monitoring well MW-3 were also analyzed for total petroleum hydrocarbons as diesel (TPH-D) by modified EPA Method 8015, oil and grease by EPA Method 5520B&F, polychlorinated biphenyles by EPA Method 608, volatile organic compounds (VOCs) by EPA Method 8010, semi-volatile organic compounds (SVOCs) by EPA Method 8270, cadmium, chromium, lead, nickel and zinc by EPA Method 6010.

TABLE TWO
Summary of Analytical Results of WATER Samples
All results are in parts per billion

DTW

Well ID & Dates Sampled	Analytical Lab	TPH-G	TPH-D	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Oil & Grease
MW-1								
08-21-91	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
11-23-91	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
01-28-92	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
04-13-94	AEN	<50	---	<0.5	<0.5	<0.5	<2	---
MW-2								
08-21-91	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
11-23-91	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
01-28-92	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
04-13-94	AEN	<50	---	<0.5	<0.5	<0.5	<2	---
MW-3								
08-21-91	MTX	<50	<50	<0.3	<0.3	<0.3	<1	<500
11-23-91	MTX	<50	<50	<0.3	<0.3	<0.3	<1	<500
01-28-92	MTX	<50	<50	<0.3	<0.3	<0.3	<1	<500
04-13-94	AEN	<50	<50	<0.5	<0.5	<0.5	<2	<1,000
MW-4								
08-21-91	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
11-23-91	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
01-28-92	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
04-13-94	AEN	<50	---	<0.5	<0.5	<0.5	<2	---
MW-5								
08-21-91	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
11-23-91	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
01-28-92	MTX	<50	---	<0.3	<0.3	<0.3	<1	---
04-13-94	AEN	<50	---	<0.5	<0.5	<0.5	<2	---

MTX = Medtox of Pleasant Hill, California
AEN = American Environmental Network of Pleasant Hill, California

TABLE THREE
Summary of Chemical Analysis of **WATER** Samples
Monitoring Well MW-3
Metals, PCBs, VOCs and SVOCs

Well ID & Dates Sampled	Cd (ppm)	Cr (ppm)	Pb (ppm)	Ni (ppm)	Zn (ppm)	PCBs (ppb)	VOCs (ppb)	SVOCs (ppb)
08-21-91	<0.005	<0.005	<0.02	---	0.086	<0.5	<0.5	<50
11-23-91	<0.005	<0.005	<0.02	---	<0.005	<0.5	<0.5	<50
01-28-92	<0.005	<0.005	<0.02	---	<0.005	<0.5	<0.5	<50
04-13-94	<0.005	<0.01	<0.04	<0.01	0.02	<0.5	<0.5	<10-50

TABLE FOUR
Summary of Chemical Analysis of **WATER** Samples
pH and Conductivity
April 13, 1994

Well ID	pH	Conductivity
MW-1	7.8	1,100
MW-2	7.3	1,200
MW-3	7.4	1,300
MW-4	7.2	1,400
MW-5	7.2	1,100

4.0 RESPONSE TO ACHCSA ISSUES

This section responds to issues raised by Mr. Scott O. Seery of the Alameda County Health Care Services Agency in a letter to Mr. Mel Gerten dated July 26, 1993.

ISSUE #1
Groundwater gradient maps for each quarter sampled are included in this report.

ISSUE #2
Copies of the original analytical reports were not available to ASE, however, the analytical results for the most recent quarter are consistent with those reported in the August 21 and November 23, 1991, and January 28, 1992 sampling reports.

ISSUE #3
Upon review of all reports available to ASE (the original tank removal report, the original site investigation, and the three Pratt quarterly reports), no evidence of halogenated compounds was noted in the water samples from monitoring well MW-3.

ISSUE #4
Although there is evidence to suggest that soil contamination still exists between 3 and 15-feet below ground surface, it appears that the contamination has not penetrated into the bedrock beyond 15-feet below ground surface and has not affected the groundwater beneath the site.

ISSUE #5
Groundwater does not appear to have been affected by contaminated soil at the site. There is no evidence that the shallow contamination beneath the site has penetrated through the bedrock into groundwater. Although it appears that the groundwater in the site wells is produced by fractures in the bedrock, there is no evidence that contamination has been able to leach into the groundwater beneath the site through fractures. In addition, since no groundwater was present in the contaminated zone (ground surface to 15-feet below ground surface) during the drilling, hydrocarbon contamination would have to be transported in liquid phase or vapor phase rather than in dissolved phase. At the concentrations as we know them in the shallow soil, ASE does not believe that there will be significant transport of contamination in the liquid or vapor phase.

5.0 CONCLUSIONS

Although there is a possibility that shallow soil at the site contains hydrocarbon contamination, it does not appear that contamination has penetrated the bedrock into the groundwater. Groundwater has now been sampled at the site during four sampling periods. No hydrocarbons were detected in any groundwater sample.

6.0 RECOMMENDATIONS

ASE recommends that site closure be granted at the site based on the fact that no contamination appears to be present in either rock or groundwater beneath 15-feet below ground surface.

7.0 REPORT LIMITATIONS

The results of this report represent the conditions at the time of the groundwater sampling at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed for by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks and associated plumbing at the site, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of 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 provide environmental consulting services to you, and trust that this report meets your needs. Please feel free to call us at (510) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

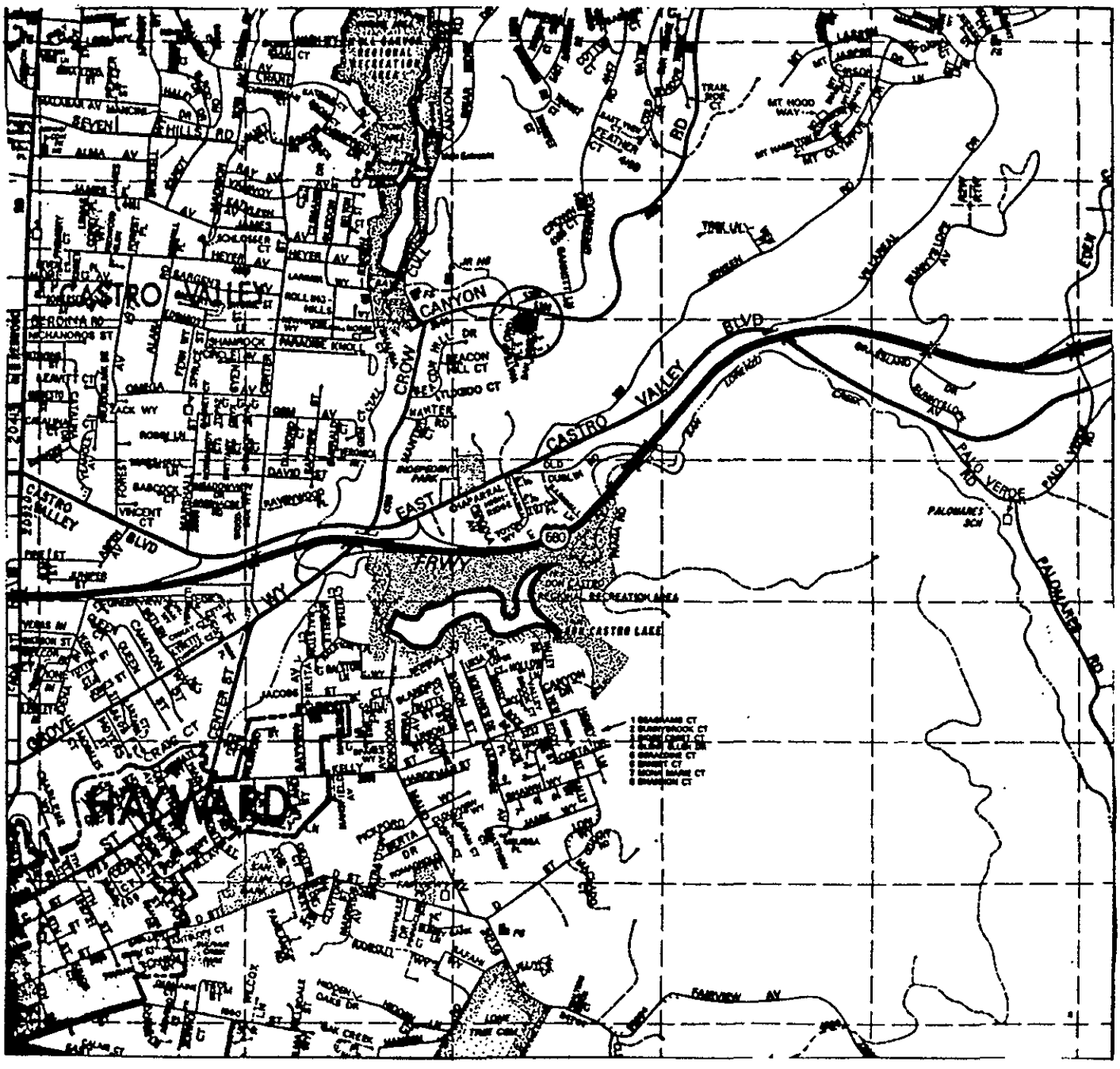
Robert E. Kitay, R.E.A.
Project Geologist

David Allen
Project Manager

cc: Mr. Scott O. Seery, Alameda County Health Care Services Agency
Mr. Richard Hiett, RWQCB, San Francisco Bay Region

Figure 1

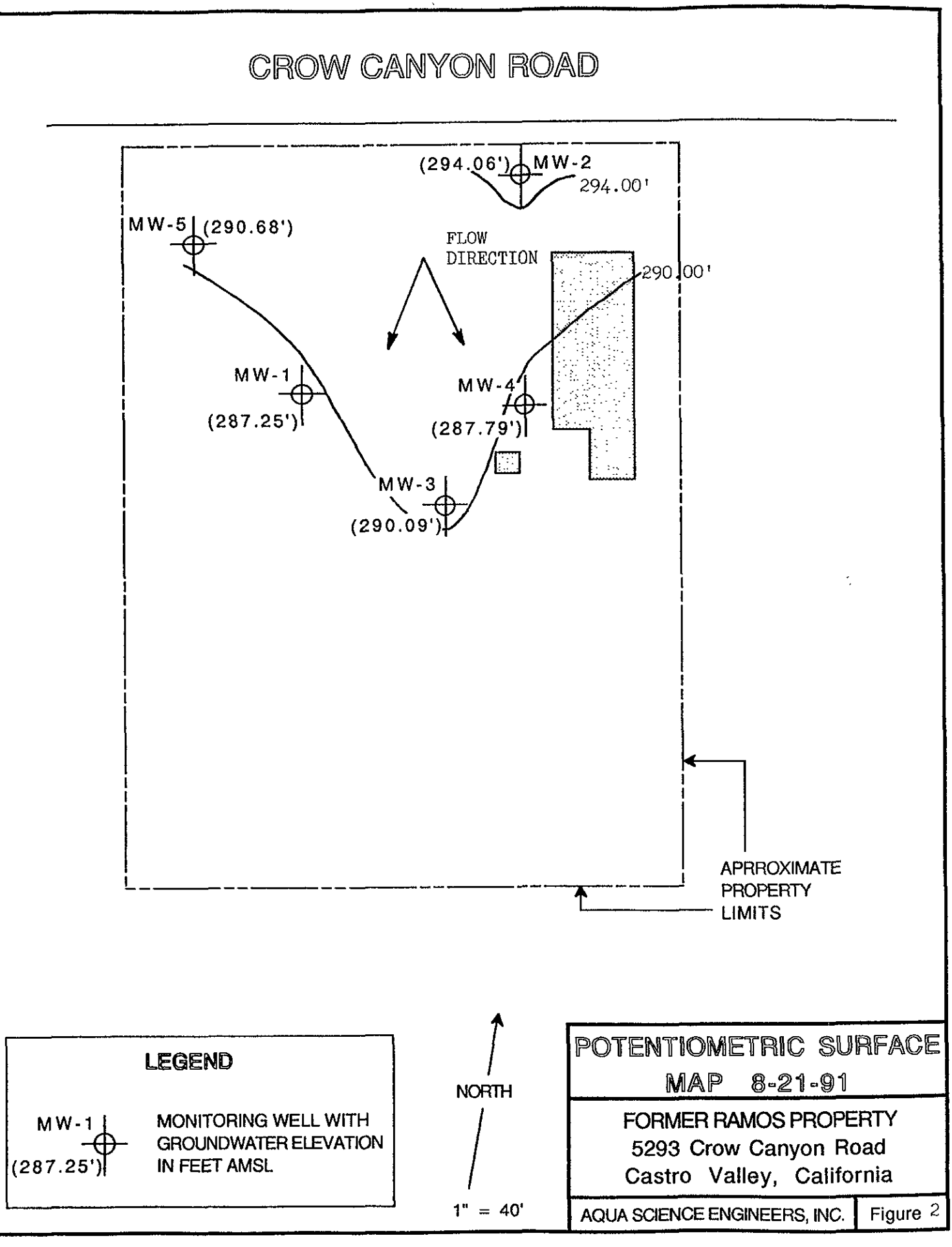
Site Location Map

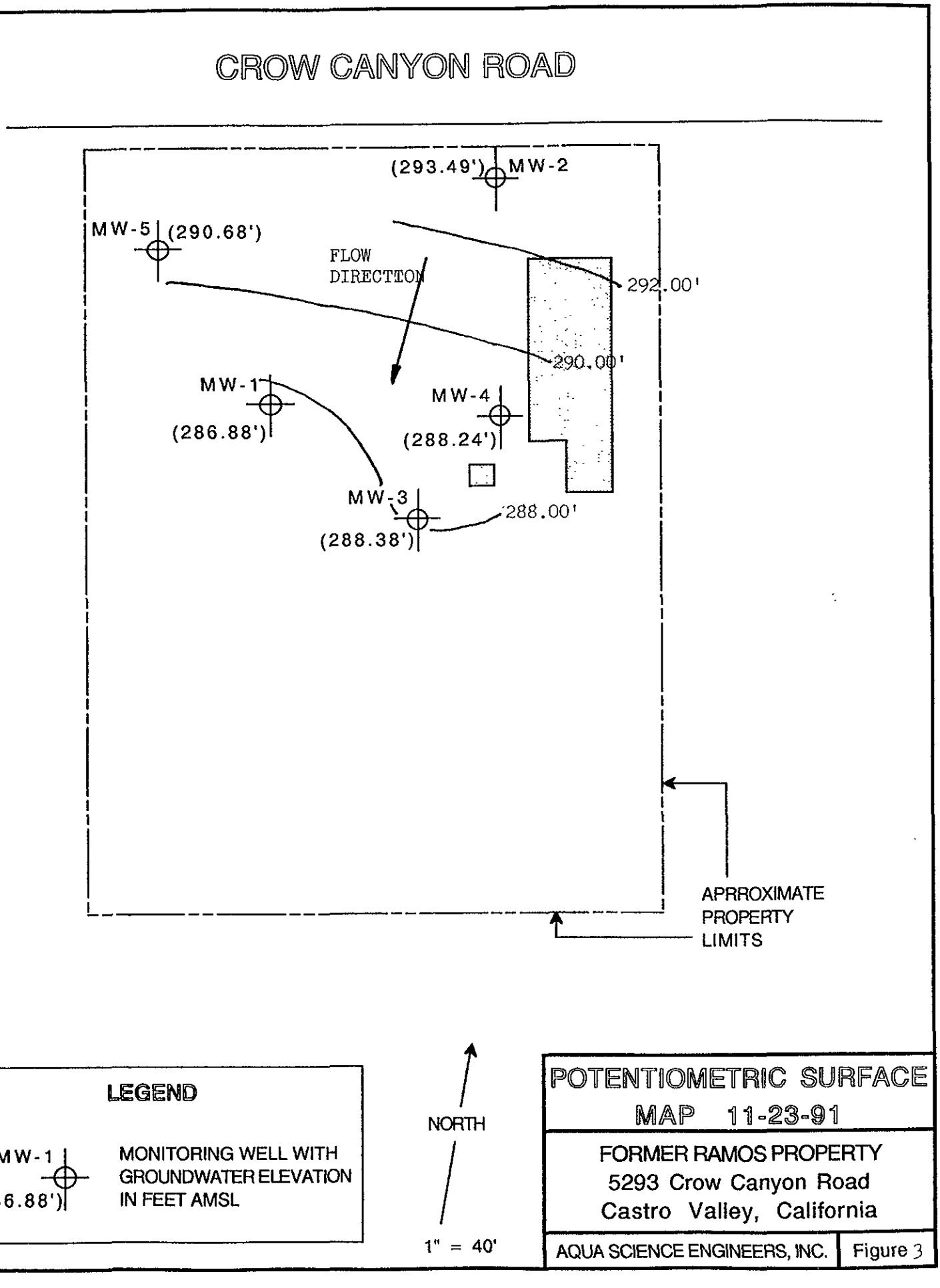


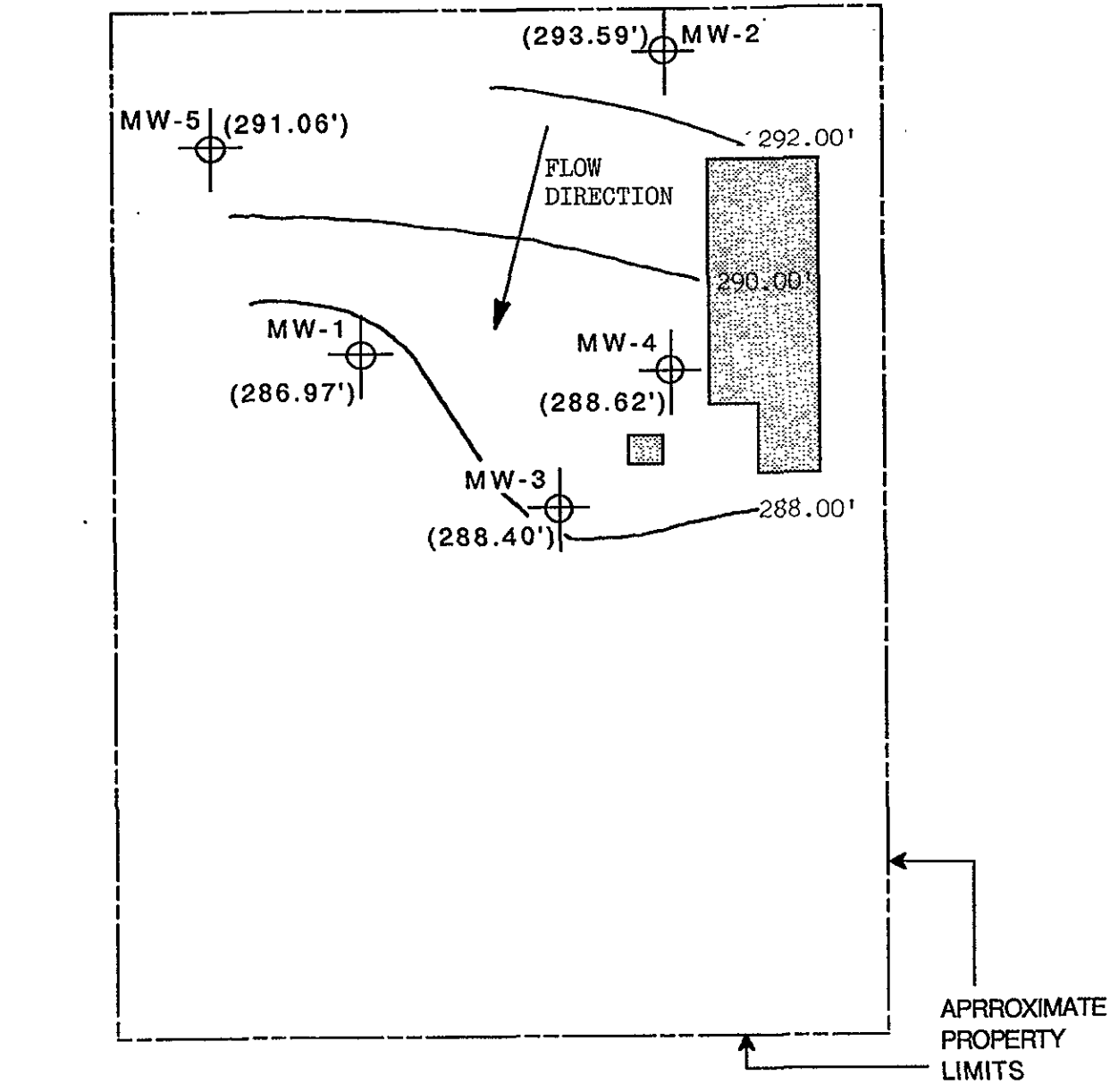
Site Location

1 inch = 2,200 feet

from Thomas Bros.


CROW CANYON ROAD
(294.06')
MW-2
294.00'
MW-5
(290.68')
FLOW
DIRECTION
290.00'
MW-1
(287.25')
MW-4
(287.79')
MW-3
(290.09')
APRROXIMATE
PROPERTY
LIMITS
LEGEND
MW-1
(287.25')
MONITORING WELL WITH
GROUNDWATER ELEVATION
IN FEET AMSL
NORTH
1" = 40'
POTENTIOMETRIC SURFACE
MAP 8-21-91
FORMER RAMOS PROPERTY
5293 Crow Canyon Road
Castro Valley, California
AQUA SCIENCE ENGINEERS, INC.
Figure 2


CROW CANYON ROAD
(293.49')
MW-2
MW-5
(290.68')
FLOW
DIRECTTON
292.00'
290.00'
MW-1
(286.88')
MW-4
(288.24')
MW-3
(288.38')
288.00'
APRROXIMATE
PROPERTY
LIMITS
LEGEND
MW-1
(286.88')
MONITORING WELL WITH
GROUNDWATER ELEVATION
IN FEET AMSL
NORTH
1" = 40'
POTENTIOMETRIC SURFACE
MAP 11-23-91
FORMER RAMOS PROPERTY
5293 Crow Canyon Road
Castro Valley, California
AQUA SCIENCE ENGINEERS, INC.
Figure 3



LEGEND

MW-1 (286.97') — MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET AMSL

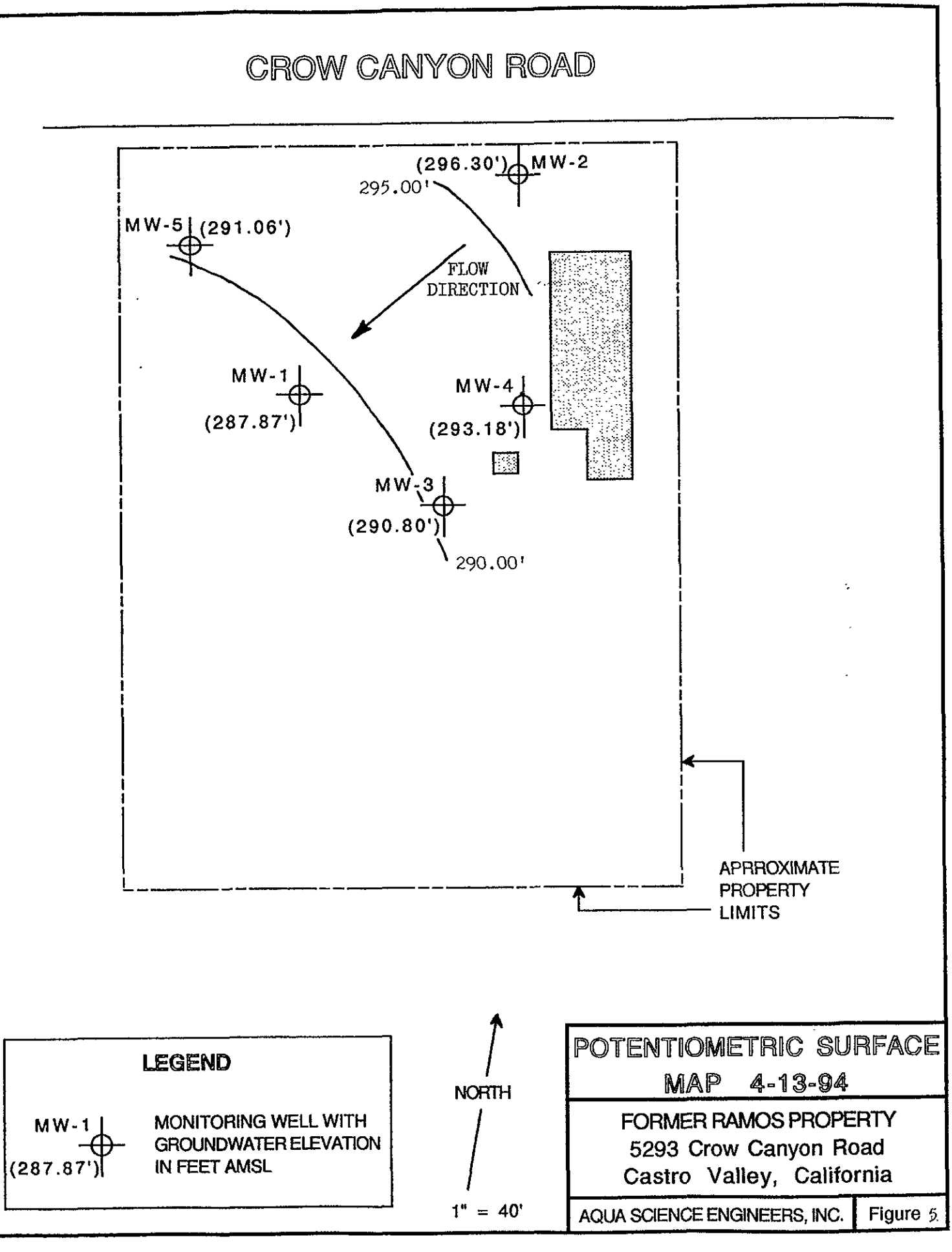
NORTH

1" = 40'

POTENTIOMETRIC SURFACE MAP 1-28-92

FORMER RAMOS PROPERTY
5293 Crow Canyon Road
Castro Valley, California

AQUA SCIENCE ENGINEERS, INC. | Figure 4


CROW CANYON ROAD
(296.30')
MW-2
295.00'
MW-5
(291.06')
FLOW
DIRECTION
MW-1
(287.87')
MW-4
(293.18')
MW-3
(290.80')
290.00'
APRROXIMATE
PROPERTY
LIMITS
LEGEND
MW-1
(287.87')
MONITORING WELL WITH
GROUNDWATER ELEVATION
IN FEET AMSL
NORTH
1" = 40'
POTENTIOMETRIC SURFACE
MAP 4-13-94
FORMER RAMOS PROPERTY
5293 Crow Canyon Road
Castro Valley, California
AQUA SCIENCE ENGINEERS, INC.
Figure 5

APPENDIX A

California EPA Certified Laboratory
Report of Groundwater Samples

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

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

ATTN: ROBERT KITAY
CLIENT PROJ. ID: 2740
CLIENT PROJ. NAME: GERTON

REPORT DATE: 04/26/94

DATE(S) SAMPLED: 04/13/94

DATE RECEIVED: 04/14/94

AEN WORK ORDER: 9404160

PROJECT SUMMARY:

On April 14, 1994, this laboratory received 5 water sample(s).

Client requested samples be analyzed for inorganic and organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

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
General Manager

AQUA SCIENCE ENGINEERS, INC.

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
CLIENT PROJ. ID: 2740

REPORT DATE: 04/26/94

AEN JOB NO: 9404160

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-1	01	ND	---	---	---	ND	ND	ND	ND
MW-2	02	ND	---	---	---	ND	ND	ND	ND
MW-3	03	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	04	ND	---	---	---	ND	ND	ND	ND
MW-5	05	ND	---	---	---	ND	ND	ND	ND
Reporting Limit		50	50	1000	1000	0.5	0.5	0.5	2
EPA Method:		5030 GCFID	3510 GCFID	5520B	5520F	8020	8020	8020	8020
Instrument:		F	C	ME1	ME1	F	F	F	F
Date Extracted:		NA	04/14/94	04/18/94	04/18/94	NA	NA	NA	NA
Date Analyzed:		04/19-20/94	04/16/94	04/18/94	04/18/94	04/19-20/94	04/19-20/94	04/19-20/94	04/19-20/94

NA = Not Applicable
ND = Not Detected

AQUA SCIENCE ENGINEERING, INC

SAMPLE ID: MW-1
AEN LAB NO: 9404160-01
AEN WORK ORDER: 9404160
CLIENT PROJ. ID: 2740

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
REPORT DATE: 04/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
pH	EPA 9040	7.8		S.U.	04/14/94
Spec. Conductance	EPA 120.1	1,100 *	20	umho/cm	04/18/94

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

AQUA SCIENCE ENGINEERING, INC

SAMPLE ID: MW-2
AEN LAB NO: 9404160-02
AEN WORK ORDER: 9404160
CLIENT PROJ. ID: 2740

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
REPORT DATE: 04/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
pH	EPA 9040	7.3		S.U.	04/14/94
Spec. Conductance	EPA 120.1	1,200 *	20	umho/cm	04/18/94

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

AQUA SCIENCE ENGINEERING, INC

SAMPLE ID: MW-3
AEN LAB NO: 9404160-03
AEN WORK ORDER: 9404160
CLIENT PROJ. ID: 2740

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
REPORT DATE: 04/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/14/94
pH	EPA 9040	7.4		S.U.	04/14/94
Spec. Conductance	EPA 120.1	1,300 *	20	umho/cm	04/18/94
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	04/20/94
Cadmium	EPA 6010	ND	0.005	mg/L	04/21/94
Chromium	EPA 6010	ND	0.01	mg/L	04/21/94
Lead	EPA 6010	ND	0.04	mg/L	04/21/94
Nickel	EPA 6010	ND	0.01	mg/L	04/21/94
Zinc	EPA 6010	0.02 *	0.01	mg/L	04/21/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	04/15/94
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	04/17/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	04/17/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	04/17/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	04/17/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	04/17/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	04/17/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	04/17/94
#Extraction for BNAs	EPA 3520	-		Extrn Date	04/15/94
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	04/21/94
Acenaphthylene	208-96-8	ND	10	ug/L	04/21/94
Anthracene	120-12-7	ND	10	ug/L	04/21/94
Benzidine	92-87-5	ND	50	ug/L	04/21/94
Benzoic Acid	65-85-0	ND	50	ug/L	04/21/94
Benzo(a)anthracene	56-55-3	ND	10	ug/L	04/21/94
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	04/21/94
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	04/21/94
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	04/21/94
Benzo(a)pyrene	50-32-8	ND	10	ug/L	04/21/94

AQUA SCIENCE ENGINEERING, INC

SAMPLE ID: MW-3
AEN LAB NO: 9404160-03
AEN WORK ORDER: 9404160
CLIENT PROJ. ID: 2740

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
REPORT DATE: 04/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Benzyl Alcohol	100-51-6	ND	20	ug/L	04/21/94
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	04/21/94
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	04/21/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	04/21/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	04/21/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	04/21/94
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	04/21/94
4-Chloroaniline	106-47-8	ND	20	ug/L	04/21/94
2-Chloronapththalene	91-58-7	ND	10	ug/L	04/21/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	04/21/94
Chrysene	218-01-9	ND	10	ug/L	04/21/94
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	04/21/94
Dibenzofuran	132-64-9	ND	10	ug/L	04/21/94
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	04/21/94
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	04/21/94
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	04/21/94
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	04/21/94
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	04/21/94
Diethyl Phthalate	84-66-2	ND	10	ug/L	04/21/94
Dimethyl Phthalate	131-11-3	ND	10	ug/L	04/21/94
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	04/21/94
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	04/21/94
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	04/21/94
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	04/21/94
Fluoranthene	206-44-0	ND	10	ug/L	04/21/94
Fluorene	86-73-7	ND	10	ug/L	04/21/94
Hexachlorobenzene	118-74-1	ND	10	ug/L	04/21/94
Hexachlorobutadiene	87-68-3	ND	10	ug/L	04/21/94
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	04/21/94
Hexachloroethane	67-72-1	ND	10	ug/L	04/21/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	04/21/94
Isophorone	78-59-1	ND	10	ug/L	04/21/94
2-Methylnaphthalene	91-57-6	ND	10	ug/L	04/21/94
Naphthalene	91-20-3	ND	10	ug/L	04/21/94
2-Nitroaniline	88-74-4	ND	50	ug/L	04/21/94
3-Nitroaniline	99-09-2	ND	50	ug/L	04/21/94
4-Nitroaniline	100-01-6	ND	50	ug/L	04/21/94
Nitrobenzene	98-95-3	ND	10	ug/L	04/21/94
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	04/21/94
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	04/21/94
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	04/21/94
Phenanthrene	85-01-8	ND	10	ug/L	04/21/94
Pyrene	129-00-0	ND	10	ug/L	04/21/94

AQUA SCIENCE ENGINEERING, INC

SAMPLE ID: MW-3
AEN LAB NO: 9404160-03
AEN WORK ORDER: 9404160
CLIENT PROJ. ID: 2740

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
REPORT DATE: 04/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	04/21/94
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	04/21/94
2-Chlorophenol	95-57-8	ND	10	ug/L	04/21/94
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	04/21/94
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	04/21/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	04/21/94
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	04/21/94
2-Methylphenol	95-48-7	ND	10	ug/L	04/21/94
4-Methylphenol	106-44-5	ND	10	ug/L	04/21/94
2-Nitrophenol	88-75-5	ND	10	ug/L	04/21/94
4-Nitrophenol	100-02-7	ND	50	ug/L	04/21/94
Pentachlorophenol	87-86-5	ND	50	ug/L	04/21/94
Phenol	108-95-2	ND	10	ug/L	04/21/94
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	04/21/94
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	04/21/94
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	04/19/94
Bromoform	75-25-2	ND	0.5	ug/L	04/19/94
Bromomethane	74-83-9	ND	0.5	ug/L	04/19/94
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	04/19/94
Chlorobenzene	108-90-7	ND	0.5	ug/L	04/19/94
Chloroethane	75-00-3	ND	0.5	ug/L	04/19/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	04/19/94
Chloroform	67-66-3	ND	0.5	ug/L	04/19/94
Chloromethane	74-87-3	ND	0.5	ug/L	04/19/94
Dibromochloromethane	124-48-1	ND	0.5	ug/L	04/19/94
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	04/19/94
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	04/19/94
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	04/19/94
Dichlorodifluoromethane	75-71-8	ND	0.5	ug/L	04/19/94
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	04/19/94
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	04/19/94
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	04/19/94
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	04/19/94
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	04/19/94
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	04/19/94
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	04/19/94
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	04/19/94
Methylene Chloride	75-09-2	ND	0.5	ug/L	04/19/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	04/19/94
Tetrachloroethene	127-18-4	ND	0.5	ug/L	04/19/94
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	04/19/94

AQUA SCIENCE ENGINEERING, INC

SAMPLE ID: MW-3
AEN LAB NO: 9404160-03
AEN WORK ORDER: 9404160
CLIENT PROJ. ID: 2740

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
REPORT DATE: 04/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	04/19/94
Trichloroethene	79-01-6	ND	0.5	ug/L	04/19/94
Trichlorofluoromethane	75-69-4	ND	0.5	ug/L	04/19/94
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	04/19/94
Vinyl Chloride	75-01-4	ND	0.5	ug/L	04/19/94

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

AQUA SCIENCE ENGINEERING, INC

SAMPLE ID: MW-4
AEN LAB NO: 9404160-04
AEN WORK ORDER: 9404160
CLIENT PROJ. ID: 2740

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
REPORT DATE: 04/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
pH	EPA 9040	7.2		S.U.	04/14/94
Spec. Conductance	EPA 120.1	1,400 *	20	umho/cm	04/18/94

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

AQUA SCIENCE ENGINEERING, INC

SAMPLE ID: MW-5
AEN LAB NO: 9404160-05
AEN WORK ORDER: 9404160
CLIENT PROJ. ID: 2740

DATE SAMPLED: 04/13/94
DATE RECEIVED: 04/14/94
REPORT DATE: 04/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
pH	EPA 9040	7.2		S.U.	04/14/94
Spec. Conductance	EPA 120.1	1,100 *	20	umho/cm	04/18/94

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9404160

CLIENT PROJECT ID: 2740

Quality Control Summary

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

Definitions

The following abbreviations are found throughout the QC report:

ND = Not Detected at or above the reporting limit
RPD = Relative Percent Difference
< = Less Than

QUALITY CONTROL DATA

DATE EXTRACTED: 04/06/94
DATE ANALYZED: 04/06/94
CLIENT PROJ. ID: 2740

AEN JOB NO: 9404160
SAMPLE SPIKED: DI WATER
INSTRUMENT: ME1

GRAVIMETRIC DETERMINATION/OIL AND GREASE
METHOD SPIKE RECOVERY SUMMARY
STANDARD METHOD 5520B (WATER MATRIX)

ANALYTE	Spike Added (mg/L)	Duplicate Spike Added (mg/L)	Average Percent Recovery	RPD
Oil	86.6	91.2	97	<1

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Oil	(92-100)	5

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

QUALITY CONTROL DATA

DATE EXTRACTED: 04/14/94
DATE ANALYZED: 04/15/94
CLIENT PROJ. ID: 2740

AEN JOB NO: 9404160
SAMPLE SPIKED: DI WATER
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATER
METHOD: EPA 3510 GCFID

ANALYTE	Spike Added (mg/L)	Average Percent Recovery	RPD
Diesel	2.09	86	5

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Diesel	(63-109)	10

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

QUALITY CONTROL DATA

INSTRUMENT: G

AEN JOB NO: 9404160

CLIENT PROJ. ID: 2740

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8010
(WATER MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION Client Id.	Lab Id.	SURROGATE RECOVERY (PERCENT) Bromochloro-methane	1-Bromo-3-chloro-propane
04/19/94	MW-3	03	119	111

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Bromochloromethane	(78-153)
1-Bromo-3-chloropropane	(74-143)

QUALITY CONTROL DATA

DATE ANALYZED: 04/15/94
SAMPLE SPIKED: 9404147-03
CLIENT PROJ. ID: 2740

AEN JOB NO: 9404160
INSTRUMENT: G

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8010
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	84	8
Trichloroethene	50.0	90	4
Chlorobenzene	50.0	84	3

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(40-130)	18
Trichloroethene	(67-136)	17
Chlorobenzene	(59-123)	15

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

QUALITY CONTROL DATA

CLIENT PROJ. ID: 2740

AEN JOB NO: 9404160

INSTRUMENT: F

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION		SURROGATE RECOVERY (PERCENT)
	Client Id.	Lab Id.	Fluorobenzene
04/20/94	MW-1	01	100
04/20/94	MW-2	02	101
04/20/94	MW-3	03	100
04/19/94	MW-4	04	100
04/19/94	MW-5	05	99

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Fluorobenzene	(70-115)

QUALITY CONTROL DATA

DATE ANALYZED: 04/19/94
SAMPLE SPIKED: LCS
CLIENT PROJ. ID: 2740

AEN JOB NO: 9404160
INSTRUMENT: F

LABORATORY CONTROL SAMPLE
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

ANALYTE	Spike Added (ug/L)	Percent Recovery
Benzene	10.0	107
Toluene	34.7	113
Hydrocarbons as Gasoline	500	124

CURRENT QC LIMITS

Analyte	Percent Recovery
Benzene	(65-122)
Toluene	(67-124)
Gasoline	(60-125)

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

QUALITY CONTROL DATA

DATE EXTRACTED: 04/15/94

AEN JOB NO: 9404160

CLIENT PROJ. ID: 2740

INSTRUMENT: A

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8080
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Client Id.	Lab Id.	2,4,5,6-Tetrachloro-meta-xylene
04/17/94	MW-3	03	107

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(30-131)

QUALITY CONTROL DATA

DATE EXTRACTED: 04/03/94
DATE ANALYZED: 04/04/94
CLIENT PROJ. ID: 2740

AEN JOB NO: 9404160
SAMPLE SPIKED: DI WATER
INSTRUMENT: A

METHOD SPIKE RECOVERY SUMMARY
METHOD: EPA 8080
(WATER MATRIX)

ANALYTE	Spike Added (ug/L)	Average Percent Recovery	RPD
A1260	4.0	122	5

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(53-133)	16

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

QUALITY CONTROL DATA

DATE EXTRACTED: 04/15/94 AEN JOB NO: 9404160

CLIENT PROJ. ID: 2740 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
04/21/94	MW-3	03	102	100	120	99	86	110

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 04/08/94
DATE ANALYZED: 04/13/94
CLIENT PROJ. ID: 2740

AEN JOB NO: 9404160
SAMPLE SPIKED: DI WATER
INSTRUMENT: 11

METHOD SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Added (ug/L)	Average Percent Recovery	RPD
Phenol	200	93	19
2-Chlorophenol	200	91	15
1,4-Dichlorobenzene	204	75	14
N-Nitroso-di-n-propylamine	199	106	4
1,2,4-Trichlorobenzene	200	67	5
4-Chloro-3-methylphenol	196	94	2
Acenaphthene	200	88	2
4-Nitrophenol	198	69	2
2,4-Dinitrotoluene	200	92	9
Pentachlorophenol	203	68	16
Pyrene	199	80	4

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

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

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9404160

CLIENT PROJ. ID: 2740

DATE DIGESTED: 04/20/94

METHOD SPIKE RECOVERY SUMMARY

Compound	Inst./ Method	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits % Rec. Limit	QC Limits RPD Limit
Cd, Cadmium	ICP/6010	0.25	101	5	78-119	10
Cr, Chromium	ICP/6010	0.2	99	4	87-117	8
Ni, Nickel	ICP/6010	0.5	100	3	88-116	6
Pb, Lead	ICP/6010	0.5	97	3	87-119	7
Zn, Zinc	ICP/6010	0.5	98	3	87-117	7

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

*** END OF REPORT ***

R 1.5-1-
R-3.5-3 9404160

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 4-13-94 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)
D. Allen 510-820-9391

PROJECT NAME GERTON NO. 2740
ADDRESS CROW CANYON RD, CASTRO VALLEY

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS: AEN TO FILTER AND PRESERVE THE METALS SAMPLE FROM MW-3.
** C.O.C. clarifications per D.Allen 4/14 DSA

	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 (EPA 6010+7000) *	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	pH + Conductivity	PCB's ** only 8080			
A-C	MW-1	4-13-94	16:45	H_2O	3		X												X				
A-C	MW-2	"	13:10	"	3		X												X				
A-H	MW-3	"	15:50	"	13		X	X		X		X	X	X					X	X			
A-C	MW-4	"	14:30	"	3		X												X				
A-C	MW-5	"	16:10	"	3		X												X				

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
D. Allen 11:37	Michael McMillen 11:37	Michael McMillen 12:05	Gina Gillespie 1205	* LUFT METALS
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	CADMIUM
D. Allen 4/14/94	Michael McMillen 4/14/94	4/14/94	Gina Gillespie 4-14-94	CHROMIUM
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	LEAD
Company- ASE	Company- AEN	Company- AEN	Company- AEN	ZINC
				Nickel **

APPENDIX B

Well Sampling Field Logs

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: FORMER RAMOS PROPERTY
Job #: 2740 Date of sampling: 4-13-94
Well Name: MW-1 Sampled by: DA
Total depth of well (feet): 51.14 Well diameter (inches): 2
Depth to water before sampling (feet): 15.34
Thickness of floating product if any: ø
Depth of well casing in water (feet): 35.8
Number of gallons per well casing volume (gallons): 6
Number of well casing volumes to be removed: 4+ (stabilization)
Req'd volume of groundwater to be purged before sampling (gallons): 24
Equipment used to purge the well: Pre-cleaned PVC Bailer
Time Evacuation Began: 13:50 Time Evacuation Finished: 14:20
Approximate volume of groundwater purged: 22
Did the well go dry?: Yes After how many gallons: 22
Time samples were collected: 16:45
Depth to water at time of sampling: 26.92
Percent recovery at time of sampling: 68 %
Samples collected with: New disposable bailer
Sample color: clear Odor: None
Description of sediment in sample: None

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-1	2	40-ml glass	✓	✓	TPH-G / BTEX
MW-1	1	500ml plastic		✓	PH + Cond.

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: FORMER RAMOS PROPERTY
Job #: 2740 Date of sampling: 4-13-94
Well Name: MW-2 Sampled by: DA
Total depth of well (feet): 30.3 Well diameter (inches): 2
Depth to water before sampling (feet): 7.24
Thickness of floating product if any: 0
Depth of well casing in water (feet): 23.06
Number of gallons per well casing volume (gallons): 4
Number of well casing volumes to be removed: 4+ (stabilization)
Req'd volume of groundwater to be purged before sampling (gallons): 16
Equipment used to purge the well: Pre-cleaned PVC bailer
Time Evacuation Began: 10:25 Time Evacuation Finished: 11:00
Approximate volume of groundwater purged: 12
Did the well go dry?: Yes After how many gallons: 12
Time samples were collected: 13:10
Depth to water at time of sampling: 13.88
Percent recovery at time of sampling: 71%
Samples collected with: New disposable bailer
Sample color: clear Odor: None
Description of sediment in sample: None

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-2	2	40 ml glass	✓	✓	TPH-G / BTEX
MW-2	1	500 ml plastic		✓	pH + Cond.

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: FORMER RAMOS PROPERTY
Job #: 2740 Date of sampling: 4-13-94
Well Name: MW-3 Sampled by: DA
Total depth of well (feet): 59.06 Well diameter (inches): 2
Depth to water before sampling (feet): 13.86
Thickness of floating product if any: 0
Depth of well casing in water (feet): 45.2
Number of gallons per well casing volume (gallons): 7.5
Number of well casing volumes to be removed: 4+ (stabilization)
Req'd volume of groundwater to be purged before sampling (gallons): 30
Equipment used to purge the well: PVC-cleaned PVC bailer
Time Evacuation Began: 12:05 Time Evacuation Finished: 12:45
Approximate volume of groundwater purged: 21
Did the well go dry?: YES After how many gallons: 21
Time samples were collected: 15:50
Depth to water at time of sampling: 30.28
Percent recovery at time of sampling: 64%
Samples collected with: New disposable bailer
Sample color: clear Odor: None
Description of sediment in sample: none

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-3	2	40 ml VOA's glass	✓	✓	TPH-G/BTEX
"	"	1-liter amber glass	✓	✓	TPH-D
"	"	40 ml VOA's glass	✓	✓	8010
"	"	1-liter amber glass		✓	8270
"	"	"	✓	✓	5520-F
"	"	1000 ml plastic		✓	LUFT METALS
"	"	1-liter amber		✓	8030
"	1	1-liter amber		✓	pH + Cond.

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: FORMER RAMOS PROPERTY
Job #: 2740 Date of sampling: 4-13-94
Well Name: MW-4 Sampled by: DA
Total depth of well (feet): 28.1 Well diameter (inches): 2
Depth to water before sampling (feet): 10.53
Thickness of floating product if any: 0
Depth of well casing in water (feet): 17.57
Number of gallons per well casing volume (gallons): 3
Number of well casing volumes to be removed: 4+ (stabilization)
Req'd volume of groundwater to be purged before sampling (gallons): 12
Equipment used to purge the well: Pre-cleaned PVC bailer
Time Evacuation Began: 11:10 Time Evacuation Finished: 11:45
Approximate volume of groundwater purged: 9
Did the well go dry?: YES After how many gallons: 9
Time samples were collected: 14:30
Depth to water at time of sampling: 17.04
Percent recovery at time of sampling: 63 %
Samples collected with: New disposable bailer
Sample color: clear Odor: none
Description of sediment in sample: none

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-4	2	40ml glass VOA's	✓	✓	TPH-G/BTEX
MW-4	1	500ml plastic		✓	pH + Cond.

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: FORMER RAMOS PROPERTY
Job #: 2740 Date of sampling: 4-13-94
Well Name: MW-5 Sampled by: DA
Total depth of well (feet): 25.46 Well diameter (inches): 2
Depth to water before sampling (feet): 9.72
Thickness of floating product if any: 0
Depth of well casing in water (feet): 15.74
Number of gallons per well casing volume (gallons): 2.6
Number of well casing volumes to be removed: 4+ (Stabilization)
Req'd volume of groundwater to be purged before sampling (gallons): 12
Equipment used to purge the well: Pre-cleaned PVC bailer
Time Evacuation Began: 13:20 Time Evacuation Finished: 13:40
Approximate volume of groundwater purged: 10
Did the well go dry?: Yes After how many gallons: 10
Time samples were collected: 16:10
Depth to water at time of sampling: 14.98
Percent recovery at time of sampling: 66%
Samples collected with: New disposable bailer
Sample color: clear Odor: none
Description of sediment in sample: clear

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-5	2	40ml glass VOA's	✓	✓	TPH-G / BTEX
MW-5	1	500ml plastic		✓	pH & Cond.