aqua science engineers inc.

July 12, 1999

QUARTERLY GROUNDWATER MONITORING REPORT
JUNE 17, 1999 GROUNDWATER SAMPLING
ASE JOB NO. 3412

at
Former Chan's Shell Station
726 Harrison Street
Oakland, CA 94602

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
208 W. El Pintado
Danville, CA 94526
(925) 820-9391

1.0 INTRODUCTION

Site Location (Site), See Figure 1
Former Chan's Shell Station
726 Harrison Street
Oakland, CA 94602
(510) 444-6583

Responsible Party
Kin Chan
4328 Edgewood Avenue
Oakland, CA 94602

Environmental Consulting Firm
Aqua Science Engineers, Inc. (ASE)
208 W. El Pintado
Danville, CA 94526
Contact: Robert Kitay, Senior Geologist
(925) 820-9391

Agency Review
Larry Seto
Alameda County Health Care Services Agency (ACHCSA)
1131 Harbor Bay Pkwy., Suite 250
Alameda, CA 94502
(510) 567-6700

California Regional Water Quality Control Board (RWQCB)
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
Contact: Mr. Chuck Headlee
(510) 622-2433

The following is a report detailing the results of the June 17, 1999 quarterly groundwater sampling at the above-referenced site. This sampling was conducted as required by the ACHCSA and RWQCB. ASE has prepared this report on behalf of Kin Chan, property owner. This report is intended to supplement the ASE report: "Report of Soil and Groundwater Assesment" dated January 8, 1999.

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On June 17, 1999, ASE staff geologist Dave Allen measured the depth to groundwater in each monitoring wells 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 in any site monitoring well. Groundwater elevation data is presented as Table One.

TABLE ONE
Groundwater Elevation 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	12-15-98	31.95	17.32	14.63
	03-04-99		15.52	16.43
	06-17-99		**16.90**	**15.05**
MW-2	12-15-98	32.40	18.03	14.37
	03-04-99		16.11	16.29
	06-17-99		**17.72**	**14.68**
MW-3	12-15-98	31.61	17.26	14.35
	03-04-99		15.47	16.14
	06-17-99		**16.92**	**14.69**
MW-4	12-15-98	32.53	17.59	14.94
	03-04-99		15.88	16.65
	06-17-99		**17.14**	**15.39**

A groundwater potentiometric surface map is presented as Figure 2. The groundwater flow direction is to the southwest with a gradient of approximately 0.012-feet/foot. This gradient and flow direction are generally consistent with nearby sites. The groundwater table has dropped on an average of approximately 1.4-feet since March 1999.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

Prior to sampling, all four site monitoring wells were purged of four well casing volumes of groundwater using a dedicated polyethylene bailer. Petroleum hydrocarbon odors were present during the purging and sampling of groundwater monitoring well MW-1. No odors were present during the purging and sampling of monitoring wells MW-2, MW-3 and MW-4. The parameters pH, temperature and conductivity were monitored during the well purging, and samples were not collected until these parameters stabilized. Groundwater samples were collected from each well using dedicated polyethylene bailers. The samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, pre-preserved with hydrochloric acid. The samples were capped without headspace, labeled and placed in coolers with wet ice for transport to Chromalab, Inc. of Pleasanton, California (ELAP #1094) under appropriate chain-of-custody documentation. Well sampling field logs are presented in Appendix A.

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

The groundwater samples were analyzed, by Chromalab, Inc., for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 5030/8015M, benzene, toluene, ethylbenzene and total xylenes (collectively known as BTEX) by EPA Method 8020 and methyl tertiary butyl ether (MTBE) by EPA Method 8020. The analytical results for this sampling period are presented in Table Two. The certified analytical report and chain-of-custody documentation are included as Appendix B.

TABLE TWO
Certified Analytical Results of **GROUNDWATER** Samples
All results are in **parts per billion**

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-1						
07-03-97	18,000	2,700	350	450	900	7,400
12-05-98	18,000	1,500	270	260	560	14,000
03-04-99	44,000	2,800	400	440	960	43,000
06-17-99	**33,000**	**2,200**	**250**	**460**	**660**	**25,000**
MW-2						
12-05-98	<50	<0.5	<0.5	<0.5	<0.5	<5
03-04-99	Inaccessable due to car parked over well					
06-17-99	**< 50**	**< 0.5**	**< 0.5**	**< 0.5**	**< 0.5**	**< 5**
MW-3						
12-05-98	6,500	<50	50	60	50	3,900
03-04-99	2,800	<25	<25	<25	<25	1,600
06-17-99	**1,000**	**< 10**	**< 10**	**< 10**	**< 10**	**1,400**
MW-4						
12-05-98	880	3.4	<0.5	<0.5	<0.5	950
03-04-99	3,800	<25	<25	<25	<25	3,700
06-17-99	**2,700**	**< 25**	**< 25**	**< 25**	**< 25**	**2,700**
DTSC MCLs	NE	1	150	700	1,750	5*
EPA METHOD	5030/ 8015M	8020	8020	8020	8020	8020

Notes:
* = DTSC interim action level; MCL not established
NE = DTSC MCLs not established
DTSC MCLs = California Department of Toxic Substances Control maximum contaminant level for drinking water.
Non-detectable concentrations noted by the less than sign (<) followed by the laboratory detection limit.

4.0 CONCLUSIONS

Benzene and toluene concentrations in groundwater samples collected from monitoring well MW-1 exceeded the California Departement of Toxic Substances Control (DTSC) maximum contamination level (MCL) for drinking water. MTBE concentrations detected in groundwater samples collected from monitoring wells MW-1, MW-3 and MW-4 exceeded the DTSC interim action level for drinking water. BTEX concentrations for monitoring wells MW-3 and MW-4 are reported as non-detectable because of elevated detection limits associated with high concentration of MTBE. Hydrocarbon concentrations from monitoring wells MW-1, MW-3, and MW-4 decreased slightly from the March 1999 results. No hydrocarbons were detected in groundwater samples collected from monitoring well MW-2.

5.0 RECOMMENDATIONS

ASE recommends continued monitoring of the site on a quarterly basis. The next groundwater sampling is scheduled for September, 1999.

6.0 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 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 by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CAL-EPA 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 for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

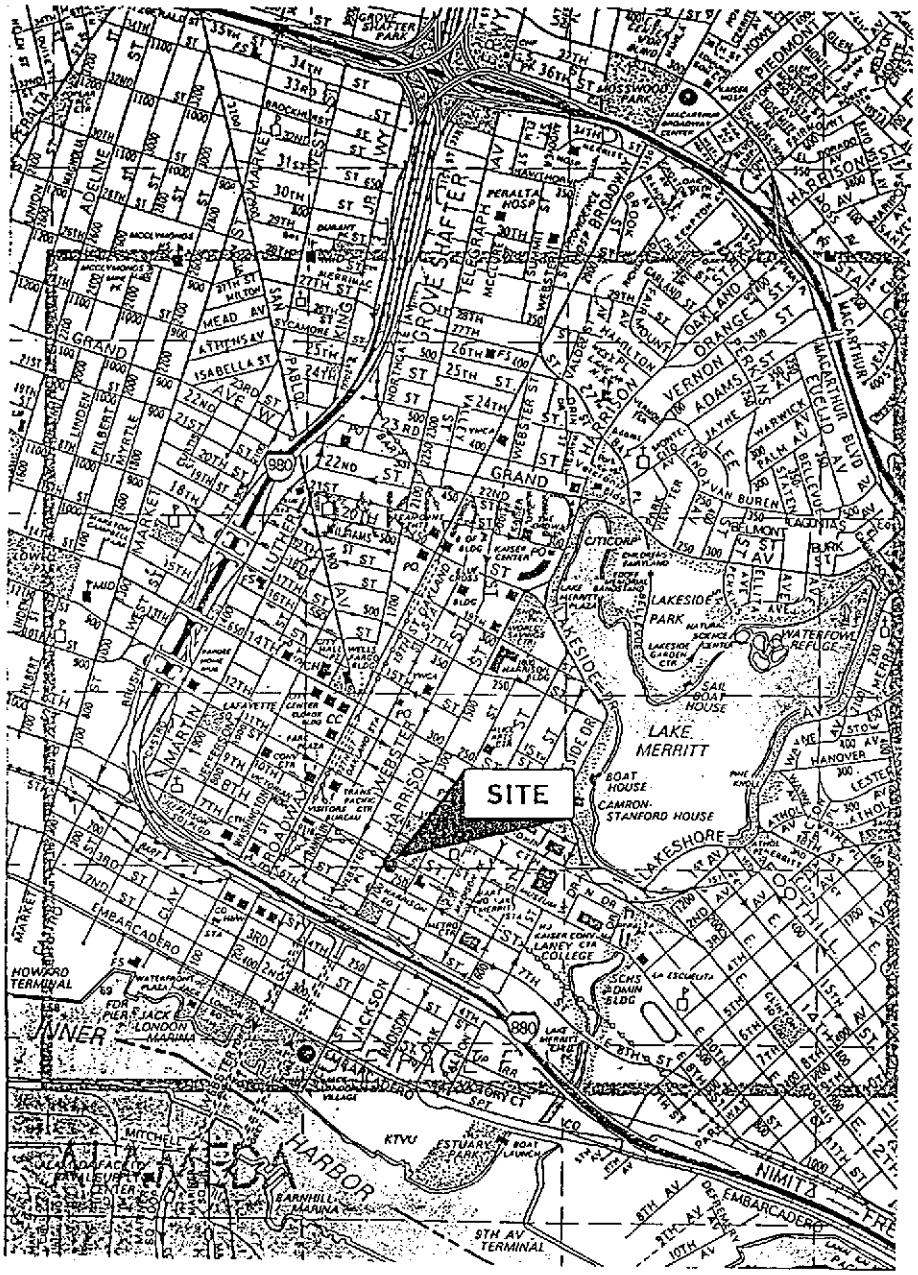
AQUA SCIENCE ENGINEERS, INC.

Ian T. Reed
Environmental Scientist

Robert E. Kitay, R.G., R.E.A.
Senior Geologist

Attachments: Figures 1 and 2
Appendices A and B

cc: Mr. Larry Seto, Alameda County Health Care Services
Mr. Chuck Headlee, RWQCB, San Francisco Bay Region

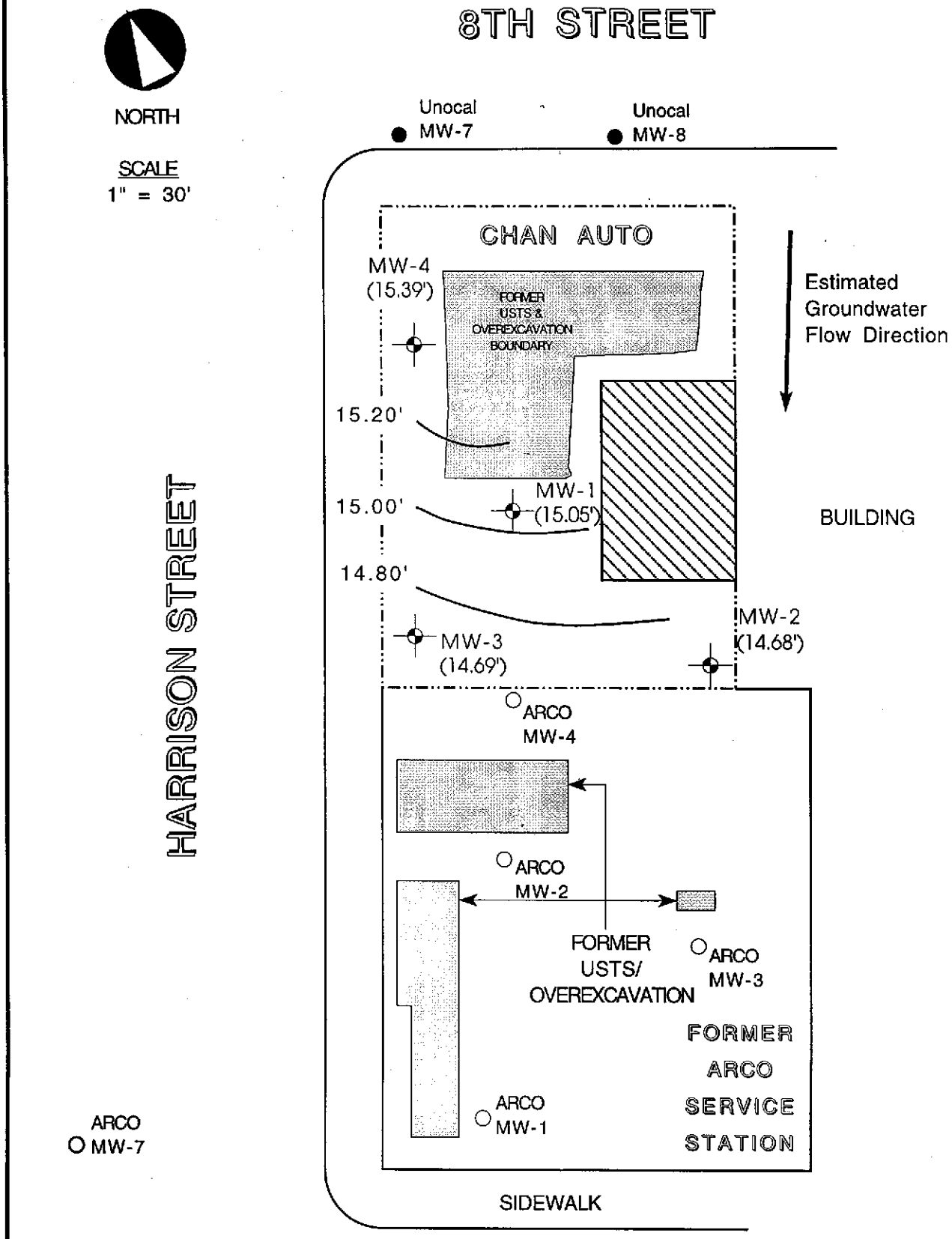


NORTH

SITE LOCATION MAP

726 HARRISON STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | Figure 1



MW-1 **LEGEND**

ASE Monitoring Well

(14.69') Groundwater elevation, relative to MSL

Groundwater elevation contour

GROUNDWATER ELEVATION CONTOUR MAP - 6/17/99

726 HARRISON STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS | Figure 2

APPENDIX A

Well Sampling Field Logs

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: CHAN
Job #: 3412 Date of sampling: 6-17-99
Well Name: MW-1 Sampled by: DA
Total depth of well (feet): 27.21 Well diameter (inches): 2
Depth to water before sampling (feet): 16.90
Thickness of floating product if any: 0
Depth of well casing in water (feet): 10.31
Number of gallons per well casing volume (gallons): 1.72
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6.9
Equipment used to purge the well: Dedicated Bailer
Time Evacuation Began: 3:10 Time Evacuation Finished: 3:30
Approximate volume of groundwater purged: 7 gal
Did the well go dry?: No After how many gallons: —
Time samples were collected: 5:00
Depth to water at time of sampling: 27.32
Percent recovery at time of sampling: 99
Samples collected with: Dedicated Bailer
Sample color: clear Odor: mild hc odor
Description of sediment in sample: None

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	64.7	4.70	790
2	64.9	4.72	783
3	64.8	4.70	795
4	65.0	4.71	776

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-1	2	40 ml VOA	✓	✓	TPH-G M BTEX

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: CHAN
Job #: 3412 Date of sampling: 6-17-99
Well Name: MW-2 Sampled by: DA
Total depth of well (feet): 29.78 Well diameter (inches): 2
Depth to water before sampling (feet): 17.72
Thickness of floating product if any: 0
Depth of well casing in water (feet): 12.06
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: Dedicated Bailer
Time Evacuation Began: 2:40 Time Evacuation Finished: 3:00
Approximate volume of groundwater purged: 8 gal
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 4:50
Depth to water at time of sampling: 30.21
Percent recovery at time of sampling: 98%
Samples collected with: Dedicated Bailer
Sample color: clear Odor: none
Description of sediment in sample: clear

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	65.4	5.12	820
2	65.6	5.28	817
3	65.3	5.36	824
4	65.0	5.24	811

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-2	2	40 ml VOA	✓	✓	TPH-G/MBTEX

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: CHAN
Job #: 3412 Date of sampling: 6-17-99
Well Name: MW-3 Sampled by: DA
Total depth of well (feet): 29.66 Well diameter (inches): 2
Depth to water before sampling (feet): 16.92
Thickness of floating product if any: 0
Depth of well casing in water (feet): 12.74
Number of gallons per well casing volume (gallons): 2.16
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 8.7
Equipment used to purge the well: dedicated Bailer
Time Evacuation Began: 2:10 Time Evacuation Finished: 2:30
Approximate volume of groundwater purged: 9 gal
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 4:40
Depth to water at time of sampling: 30.11
Percent recovery at time of sampling: 98%
Samples collected with: dedicated Bailer
Sample color: clear Odor: none
Description of sediment in sample: none

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	63.8	5.81	911
2	62.7	5.76	923
3	64.5	5.68	904
4	64.2	5.72	921

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-3	2	40 ml VOA	✓	✓	TPHG/MBTEX

208 W. El Pintado Road, Danville, California 94526 • 925-820-9391 • Fax 925-837-4853

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: CHAN

Job #: 3912 Date of sampling: 6-17-99

Well Name: MW-4 Sampled by: DA

Total depth of well (feet): 29.97 Well diameter (inches): 2

Depth to water before sampling (feet): 17.14

Thickness of floating product if any: 0

Depth of well casing in water (feet): 12.83

Number of gallons per well casing volume (gallons): 2.14

Number of well casing volumes to be removed: 4

Req'd volume of groundwater to be purged before sampling (gallons): 8.6

Equipment used to purge the well: Dedicated Bailer

Time Evacuation Began: 3:40 Time Evacuation Finished: 4:00

Approximate volume of groundwater purged: 9 gal

Did the well go dry?: NO After how many gallons: —

Time samples were collected: 5:10

Depth to water at time of sampling: 30.10

Percent recovery at time of sampling: 99%

Samples collected with: Dedicated Bailer

Sample color: clear Odor: none

Description of sediment in sample: none

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	66.3	5.10	803
2	65.8	5.26	817
3	65.9	5.13	821
4	66.2	5.28	812

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-4	2	40 ml VOA	✓	✓	TPH G/MBTEX

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

Aqua Science Engineers, Inc.
208 El Pintado
Danville, CA

Attn.: Mr. Dave Allen

Project: 3412
Chan

Site: Oakland

Dear Mr. Allen,

Attached is our report for your samples received on Friday June 18, 1999.
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after July 18, 1999 unless you have requested otherwise. We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

Sincerely,

Pierre Monette

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-06-0279

Gas/BTEX and MTBE

Aqua Science Engineers, Inc.

208 El Pintado
Danville, CA

Attn: Dave Allen

Phone: (925) 820-9391 Fax: (925) 837-4853

Project #: 3412

Project: Chan

Site: Oakland

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	06/17/1999 17:00	1
MW-2	Water	06/17/1999 16:50	2
MW-3	Water	06/17/1999 16:40	3
MW-4	Water	06/17/1999 17:10	4

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-06-0279

To: **Aqua Science Engineers, Inc.**

Attn.: Dave Allen

Test Method: 8015M
8020

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-1**	Lab Sample ID:	**1999-06-0279-001**
Project:	3412 Chan	Received:	06/18/1999 15:27
Site:	Oakland	Extracted:	06/26/1999 21:32
Sampled:	06/17/1999 17:00	QC-Batch:	1999/06/26-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	33000	13000	ug/L	250.00	06/26/1999 21:32	
Benzene	2200	130	ug/L	250.00	06/26/1999 21:32	
Toluene	250	130	ug/L	250.00	06/26/1999 21:32	
Ethyl benzene	460	130	ug/L	250.00	06/26/1999 21:32	
Xylene(s)	660	130	ug/L	250.00	06/26/1999 21:32	
MTBE	25000	1300	ug/L	250.00	06/26/1999 21:32	
Surrogate(s)						
Trifluorotoluene	92.8	58-124	%	1.00	06/26/1999 21:32	
4-Bromofluorobenzene-FID	90.3	50-150	%	1.00	06/26/1999 21:32	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-06-0279

To: **Aqua Science Engineers, Inc.**

Attn.: Dave Allen

Test Method: 8015M
8020

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-2**	Lab Sample ID:	**1999-06-0279-002**
Project:	3412 Chan	Received:	06/18/1999 15:27
Site:	Oakland	Extracted:	06/25/1999 15:00
Sampled:	06/17/1999 16:50	QC-Batch:	1999/06/25-01.03
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	06/25/1999 15:00	
Benzene	ND	0.50	ug/L	1.00	06/25/1999 15:00	
Toluene	ND	0.50	ug/L	1.00	06/25/1999 15:00	
Ethyl benzene	ND	0.50	ug/L	1.00	06/25/1999 15:00	
Xylene(s)	ND	0.50	ug/L	1.00	06/25/1999 15:00	
MTBE	ND	5.0	ug/L	1.00	06/25/1999 15:00	
Surrogate(s)						
Trifluorotoluene	83.1	58-124	%	1.00	06/25/1999 15:00	
4-Bromofluorobenzene-FID	105.8	50-150	%	1.00	06/25/1999 15:00	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-06-0279

To: **Aqua Science Engineers, Inc.**

Attn.: Dave Allen

Test Method: 8015M
8020

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-3**	Lab Sample ID:	**1999-06-0279-003**
Project:	3412 Chan	Received:	06/18/1999 15:27
Site:	Oakland	Extracted:	06/25/1999 17:16
Sampled:	06/17/1999 16:40	QC-Batch:	1999/06/25-01.03
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	1000	1000	ug/L	20.00	06/25/1999 17:16	g
Benzene	ND	10	ug/L	20.00	06/25/1999 17:16	
Toluene	ND	10	ug/L	20.00	06/25/1999 17:16	
Ethyl benzene	ND	10	ug/L	20.00	06/25/1999 17:16	
Xylene(s)	ND	10	ug/L	20.00	06/25/1999 17:16	
MTBE	1400	100	ug/L	20.00	06/25/1999 17:16	
Surrogate(s)						
Trifluorotoluene	89.4	58-124	%	1.00	06/25/1999 17:16	
4-Bromofluorobenzene-FID	110.2	50-150	%	1.00	06/25/1999 17:16	

To: **Aqua Science Engineers, Inc.**

Attn.: Dave Allen

Test Method: 8015M
8020

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-4**	Lab Sample ID:	**1999-06-0279-004**
Project:	3412 Chan	Received:	06/18/1999 15:27
Site:	Oakland	Extracted:	06/25/1999 16:21
Sampled:	06/17/1999 17:10	QC-Batch:	1999/06/25-01.03
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	2700	2500	ug/L	50.00	06/25/1999 16:21	g
Benzene	ND	25	ug/L	50.00	06/25/1999 16:21	
Toluene	ND	25	ug/L	50.00	06/25/1999 16:21	
Ethyl benzene	ND	25	ug/L	50.00	06/25/1999 16:21	
Xylene(s)	ND	25	ug/L	50.00	06/25/1999 16:21	
MTBE	2700	250	ug/L	50.00	06/25/1999 16:21	
Surrogate(s)						
Trifluorotoluene	72.2	58-124	%	1.00	06/25/1999 16:21	
4-Bromofluorobenzene-FID	90.4	50-150	%	1.00	06/25/1999 16:21	

To: **Aqua Science Engineers, Inc.**

Attn.: Dave Allen

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

Method Blank | Water | **QC Batch # 1999/06/25-01.03**

MB: 1999/06/25-01.03-001 | Date Extracted: 06/25/1999 07:51

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	06/25/1999 07:51	
Benzene	ND	0.5	ug/L	06/25/1999 07:51	
Toluene	ND	0.5	ug/L	06/25/1999 07:51	
Ethyl benzene	ND	0.5	ug/L	06/25/1999 07:51	
Xylene(s)	ND	0.5	ug/L	06/25/1999 07:51	
MTBE	ND	5.0	ug/L	06/25/1999 07:51	
Surrogate(s)					
Trifluorotoluene	93.4	58-124	%	06/25/1999 07:51	
4-Bromofluorobenzene-FID	100.6	50-150	%	06/25/1999 07:51	

To: **Aqua Science Engineers, Inc.**

Attn.: Dave Allen

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Method Blank | **Water** | **QC Batch # 1999/06/26-01.01**

MB: 1999/06/26-01.01-001

Date Extracted: 06/26/1999 09:38

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	06/26/1999 09:38	
Benzene	ND	0.5	ug/L	06/26/1999 09:38	
Toluene	ND	0.5	ug/L	06/26/1999 09:38	
Ethyl benzene	ND	0.5	ug/L	06/26/1999 09:38	
Xylene(s)	ND	0.5	ug/L	06/26/1999 09:38	
MTBE	ND	5.0	ug/L	06/26/1999 09:38	
Surrogate(s)					
Trifluorotoluene	102.2	58-124	%	06/26/1999 09:38	
4-Bromofluorobenzene-FID	91.2	50-150	%	06/26/1999 09:38	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-06-0279

To: **Aqua Science Engineers, Inc.**

Test Method: 8020
8015M

Attn: Dave Allen

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) Water **QC Batch # 1999/06/25-01.03**

LCS: 1999/06/25-01.03-002 Extracted: 06/25/1999 08:45 Analyzed: 06/25/1999 08:45

LCSD: 1999/06/25-01.03-003 Extracted: 06/25/1999 09:12 Analyzed: 06/25/1999 09:12

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	529	519	500	500	105.8	103.8	1.9	75-125	20		
Benzene	95.8	89.8	100.0	100.0	95.8	89.8	6.5	77-123	20		
Toluene	90.4	88.7	100.0	100.0	90.4	88.7	1.9	78-122	20		
Ethyl benzene	90.6	85.5	100.0	100.0	90.6	85.5	5.8	70-130	20		
Xylene(s)	256	248	300	300	85.3	82.7	3.1	75-125	20		
Surrogate(s)											
Trifluorotoluene	417	409	500	500	83.4	81.8		58-124			
4-Bromofluorobenzene-FI	474	497	500	500	94.8	99.4		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-06-0279

To: **Aqua Science Engineers, Inc.**

Test Method: 8020
8015M

Attn: Dave Allen

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 1999/06/26-01.01**

LCS: 1999/06/26-01.01-002 Extracted: 06/26/1999 10:05 Analyzed: 06/26/1999 10:05

LCSD: 1999/06/26-01.01-003 Extracted: 06/26/1999 10:58 Analyzed: 06/26/1999 10:58

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	545	556	500	500	109.0	111.2	2.0	75-125	20		
Benzene	109	106	100.0	100.0	109.0	106.0	2.8	77-123	20		
Toluene	109	103	100.0	100.0	109.0	103.0	5.7	78-122	20		
Ethyl benzene	107	103	100.0	100.0	107.0	103.0	3.8	70-130	20		
Xylene(s)	313	303	300	300	104.3	101.0	3.2	75-125	20		
Surrogate(s)											
Trifluorotoluene	589	569	500	500	117.8	113.8		58-124			
4-Bromofluorobenzene-FI	515	532	500	500	103.0	106.4		50-150			

To: **Aqua Science Engineers, Inc.**

Attn:Dave Allen

Test Method: 8015M
8020

Prep Method: 5030

Legend & Notes

Gas/BTEX and MTBE

Analyte Flags

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

99-06-0279

46558

Aqua Science Engineers, Inc.
208 W. El Pintado
Danville, CA 94526
(925) 820-9391
FAX (925) 837-4853

Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) D. Allen (PHONE NO.) 820.9391

PROJECT NAME CHAN JOB NO. 3412

ADDRESS OAKLAND DATE 6.17.99

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)					COMPOSITE
MW-1	6/17	5:00	Water	2	X																		
MW-2	"	4:50	"	"	X																		
MW-3	"	4:40	"	"	X																		
MW-4	"	5:10	"	"	X																		

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
D. Allen 1431 6/18	Tom Wright 1431	Tom Wright 1500	Denise Harrington	STANDARD TAT
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
D. Allen 6/18/99	Tom Wright 6/18/99	Tom Wright 6-16-99	D. Harrington 1500	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE Inc.	Company- C/L	Company- C/L	Company- Chromalab 6/18/99	2.8°C