aqua science engineers inc.

39

May 9, 2001

MAY 14 2001

QUARTERLY GROUNDWATER MONITORING REPORT
APRIL 2001 GROUNDWATER SAMPLING
ASE JOB NO. 3412

at
Former Chan's Shell Station
726 Harrison Street
Oakland, CA 94607

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
Contact: Mr. Barney Chan
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 April 2001 quarterly groundwater sampling at the former Chan's Shell Station. 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 Assessment" dated January 8, 1999.

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On April 5, 2001, ASE associate geologist Erik Paddleford measured the depth to groundwater in all site 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 in Table One.

TABLE ONE
Groundwater Elevation Data
Chan's Former Shell Station

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
	08-27-99		17.39	14.56
	12-09-99		18.03	13.92
	03-07-00		15.11	16.84
	06-07-00		16.66	15.29
	10-11-00		18.08	13.87
	01-18-01		17.96	13.99
	04-05-01		**16.35**	**15.60**
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
	08-27-99	Inaccessible		
	12-09-99	Inaccessible		
	03-07-00	Inaccessible		
	06-07-00		17.67	14.73
	10-11-00		18.91	13.49
	01-18-01		18.66	13.74
	04-05-01		**16.97**	**15.43**
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
	08-27-99		17.40	14.21
	12-09-99		18.01	13.60
	03-07-00		16.15	15.46
	06-07-00		16.85	14.76
	10-11-00		18.07	13.54
	01-18-01		17.89	13.72
	04-05-01		**16.21**	**15.40**

TABLE ONE (Continued)
Groundwater Elevation Data
Chan's Former Shell Station

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
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
	08-27-99		17.65	14.88
	12-09-99		18.28	14.25
	03-07-00		15.41	17.12
	06-07-00		17.09	15.44
	10-11-00		18.33	14.20
	01-18-01		18.23	14.30
	04-05-01		**16.69**	**15.84**

A groundwater potentiometric surface map is presented as Figure 2. The groundwater flow direction is generally to the south with a gradient of approximately 0.007-feet/foot. The water table has risen an average of 1.63-feet this quarter.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

Prior to sampling, all four monitoring wells were purged of four well casing volumes of groundwater using dedicated polyethylene bailers. Petroleum hydrocarbon odors were noted during the purging and sampling of monitoring wells MW-1, MW-2, 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 Chromolab, Inc. of Pleasanton California (DHS #1644) under appropriate chain-of-custody documentation. Well sampling field logs are presented in Appendix A.

The well purge water was placed into a 55-gallon steel drum, 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 and previous sampling periods are presented in Table Two. The certified analytical report and chain-of-custody documentation are included as Appendix B.

TABLE TWO
Certified Analytical Results for GROUNDWATER Samples
Chan's Former Shell Station
All results are in parts per billion (ppb)

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
08/27/99	6,000	1,000	97	190	230	14,000/ 16,000*
12/09/99	15,000	1,500	160	220	420	17,000
03/07/00	9,300	1,500	210	66	530	12,000
06/07/00	26,000**	1,700	<250	360	580	30,000
10/11/00	13,000**	1,600	<100	140	160	19,000
01/18/01	14,000**	450	<100	110	230	9,600
04/05/01	**38,000**	**2,200**	**180**	**290**	**590**	**35,000**
MW-2						
12/05/98	<50	<0.5	<0.5	<0.5	<0.5	<5
03/04/99	Inaccessible due to car parked over well					
06/17/99	<50	<0.5	<0.5	<0.5	<0.5	<5
08/27/99	Inaccessible due to car parked over well					
12/09/99	Inaccessible due to car parked over well					
03/07/00	Inaccessible due to car parked over well					
06/07/00	<50	<0.5	<0.5	<0.5	<0.5	<5.0
10/11/00	<50	<0.5	<0.5	<0.5	<0.5	<5.0
01/18/01	<50	<0.5	<0.5	<0.5	<0.5	<5.0
04/05/01	**< 50**	**< 0.5**	**< 0.5**	**< 0.5**	**< 0.5**	**< 5.0**

Table Two continued on next page

TABLE TWO (continued)
Certified Analytical Results for GROUNDWATER Samples
Chan's Former Shell Station
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
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
08/27/99	230	<0.5	0.51	0.5	1.0	1,500/ 1,600*
12/09/99	870**	<0.5	<0.5	<0.5	<0.5	2,100
03/07/00	150**	4.0	<0.5	<0.5	<0.5	830
06/07/00	140**	<0.5	<0.5	<0.5	<0.5	1,100
10/11/00	620**	<5.0	<5.0	<5.0	<5.0	1,500
01/18/01	1,200**	<5.0	<5.0	<5.0	<5.0	1,000
04/05/01	**1,700****	**< 5.0**	**< 5.0**	**< 5.0**	**< 5.0**	**1,900**
MW-4						
12/05/98	880	3	<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
08/27/99	440	4.7	1.1	0.58	1.3	1,600/ 1,700*
12/09/99	1,100**	<2.5	<2.5	<2.5	<2.5	1,700
03/07/00	<250	<2.5	<2.5	<2.5	<2.5	1,700
06/07/00	530**	8.8	<2.5	<2.5	<2.5	440
10/11/00	700**	3.9	<2.5	<2.5	<2.5	680
01/18/01	2,000**	<2.5	<2.5	<2.5	<2.5	780
04/05/01	**810****	**<2.5**	**< 2.5**	**< 2.5**	**< 2.5**	**620**
DHS MCL	NE	1	150	700	1,750	13

Notes:
* EPA Method 8020/EPA Method 8260 (MTBE confirmation)
** Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standard
DHS MCL = California Department of Health Services maximum contaminant level for
NE = DHS MCL not established
Non-detectable concentrations noted by the less than sign (<) followed by the laboratory detection limit.

4.0 CONCLUSIONS

The groundwater samples collected from monitoring well MW-1 contained 38,000 parts per billion (ppb) TPH-G, 2,2000 ppb benzene, 180 ppb toluene, 290 ppb ethyl benzene, 590 ppb total xylenes, and 35,000 ppb MTBE. The groundwater samples collected from monitoring well MW-3 contained 1,700 ppb TPH-G and 1,900 ppb MTBE. The groundwater samples collected from monitoring well MW-4 contained 810 ppb TPH-G and 620 ppb MTBE. No hydrocarbons were detected above laboratory reporting limits in the groundwater sample collected from monitoring well MW-2.

Groundwater samples collected from MW-1 showed a significant increase in hydrocarbon concentrations from last quarter. Hydrocarbon concentrations detected in groundwater samples collected from monitoring well MW-3 increased slightly, but remain consistent with previous findings at the site. Hydrocarbon concentrations detected in groundwater samples collected from monitoring well MW-4 decreased slightly from the previous quarter, but remain consistent with previous findings at the site. No hydrocarbons were detected in groundwater samples collected from MW-2.

The benzene, toluene, and MTBE concentrations detected in groundwater samples collected from monitoring well MW-1 exceeded the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water. The MTBE concentrations detected in groundwater samples collected from monitoring wells MW-3 and MW-4 also exceeded the DHS MCL for drinking water.

5.0 RECOMMENDATIONS

ASE has prepared a workplan to conduct additional soil and groundwater assessment and remediation feasability tests at the site. ASE anticipates beginning the work outlined in that workplan during the next quarter. ASE also recommends continued groundwater monitoring on a quarterly basis. The next groundwater sampling is scheduled for July 2001. ASE recommends that monitoring well MW-2 be removed from the groundwater sampling program since hydrocarbons have never been detected in that well during previous sampling events. OK

but keep taking Levels readings

6.0 REPORT LIMITATIONS

The results presented in 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 an 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.

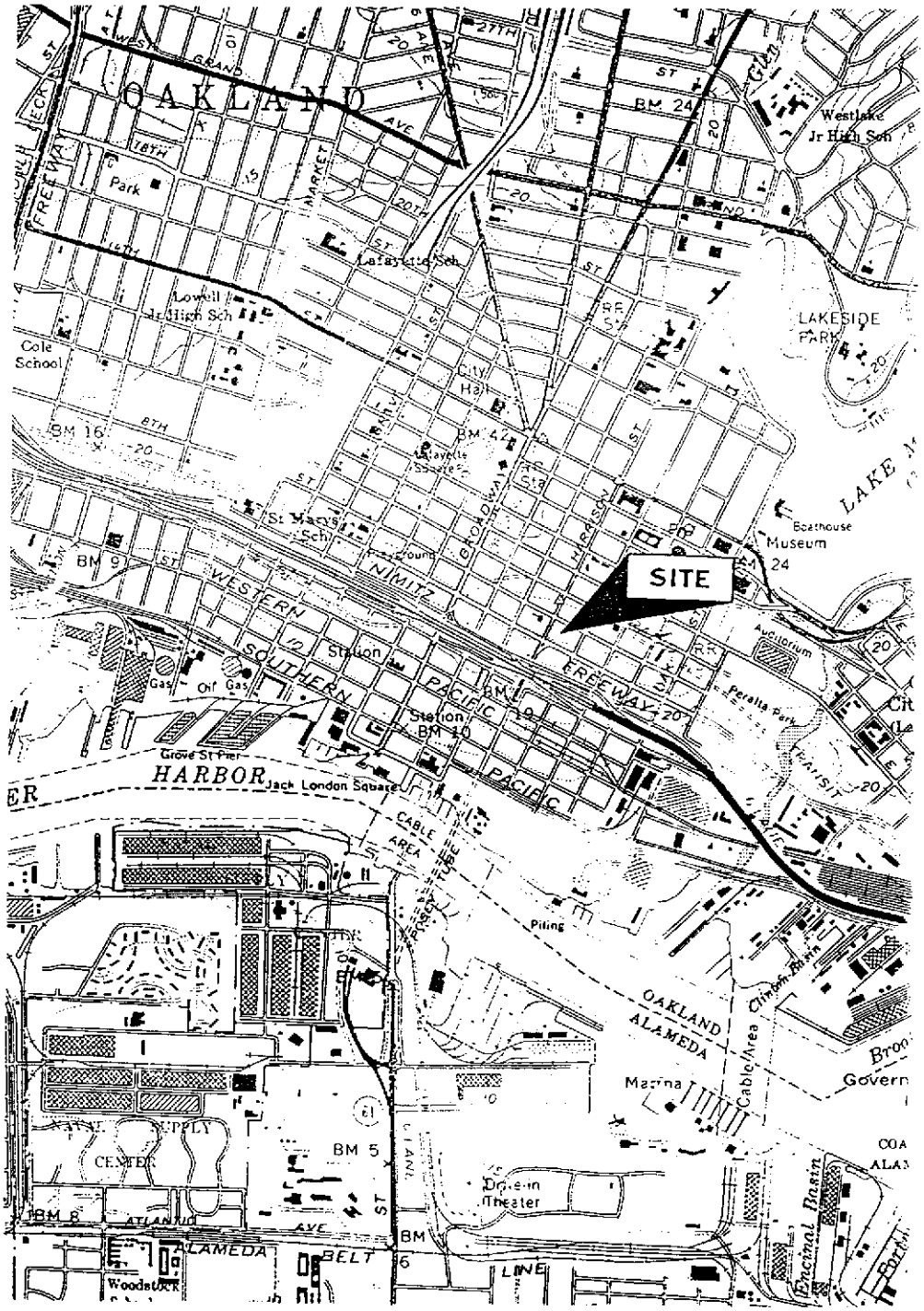
Erik H. Paddleford
Associate Geologist

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

Attachments: Figures 1 and 2
Appendices A and B

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

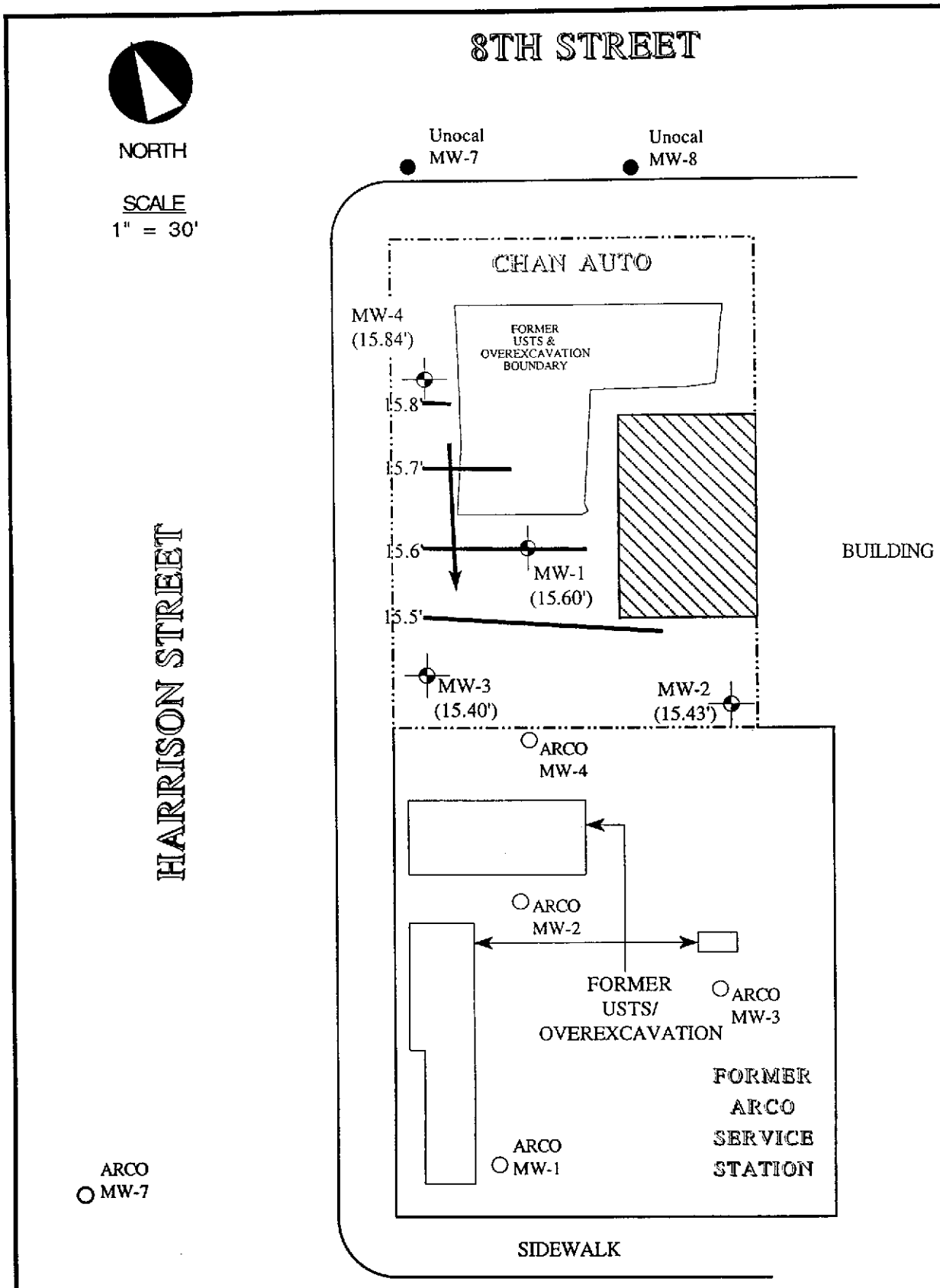
N



SITE LOCATION MAP

FORMER CHAN'S SHELL STATION
726 HARRISION STREET
OAKLAND, CALIFORNIA

Aqua Science Engineers | Figure 1



MW-1 **LEGEND**

ASE Monitoring Well

(15.60') Groundwater elevation, relative to MSL

Groundwater elevation contour

GROUNDWATER ELEVATION CONTOUR MAP - 04/05/01

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 Auto
Job #: 3412 Date of sampling: 4/5/01
Well Name: MW-1 Sampled by: EP
Total depth of well (feet): 27.21 Well diameter (inches): _____
Depth to water before sampling (feet): 16.35
Thickness of floating product if any: —
Depth of well casing in water (feet): 10.86
Number of gallons per well casing volume (gallons): 1.84
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 7.3
Equipment used to purge the well: bailer
Time Evacuation Began: 910 Time Evacuation Finished: 930
Approximate volume of groundwater purged: 7
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 935
Depth to water at time of sampling: —
Percent recovery at time of sampling: 790%
Samples collected with: bailer
Sample color: green/grey Odor: moderate HC
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	16.0	8.02	0
2	16.1	7.98	0
3	15.9	7.87	0
4	16.0	7.97	0

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-1	3	40 ml VOA	x	x	

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

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Chan Auto
Job #: 3412 Date of sampling: 4/5/01
Well Name: MW-2 Sampled by: EP
Total depth of well (feet): 27.0 Well diameter (inches): _____
Depth to water before sampling (feet): 16.97
Thickness of floating product if any: —
Depth of well casing in water (feet): 10.03
Number of gallons per well casing volume (gallons): 1.7
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6.8
Equipment used to purge the well: bailer
Time Evacuation Began: 1010 Time Evacuation Finished: 1025
Approximate volume of groundwater purged: 7
Did the well go dry?: no After how many gallons: —
Time samples were collected: 1035
Depth to water at time of sampling: —
Percent recovery at time of sampling: >70%
Samples collected with: bailer
Sample color: dark brown Odor: V. slight HC
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	19.3	8.19	0
2	19.2	8.20	0
3	19.1	8.15	0
4	19.1	8.16	0

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW2	3	40 ml VOA	X	X	

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Chan Auto
Job #: 3412 Date of sampling: 4/5/01
Well Name: MW-3 Sampled by: EP
Total depth of well (feet): 29.66 Well diameter (inches): 2
Depth to water before sampling (feet): 16.21
Thickness of floating product if any: —
Depth of well casing in water (feet): 13.45
Number of gallons per well casing volume (gallons): 2.3
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 9.1
Equipment used to purge the well: bailer
Time Evacuation Began: 8:30 Time Evacuation Finished: 8:45
Approximate volume of groundwater purged: 9
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 855
Depth to water at time of sampling: —
Percent recovery at time of sampling: >90%
Samples collected with: bailer
Sample color: clear/tan Odor: none
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	18.4	8.10	0
2	18.1	8.07	0
3	18.2	8.07	0
4	18.1	8.11	0

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-3	3	40 ml VOA	X	X	

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

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Chan Auto
Job #: 3912 Date of sampling: 4/5/01
Well Name: MW-4 Sampled by: EP
Total depth of well (feet): 29.97 Well diameter (inches): 2
Depth to water before sampling (feet): 16.69
Thickness of floating product if any: —
Depth of well casing in water (feet): 13.28
Number of gallons per well casing volume (gallons): 2.15
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 9
Equipment used to purge the well: bailer
Time Evacuation Began: 940 Time Evacuation Finished: 1000
Approximate volume of groundwater purged: 9
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 1005
Depth to water at time of sampling: →
Percent recovery at time of sampling: >90%
Samples collected with: bailer
Sample color: gray Odor: slight HC
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	16.9	7.93	0
2	16.7	7.92	0
3	16.7	7.87	0
4	16.8	7.90	0

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-4	3	40 ml VOA	X	X	

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

STL ChromaLab
Environmental Services (CA 1094)

Submission #: 2001-04-0165
Date: April 13, 2001

Aqua Science Engineers, Inc.
208 West El Pintado
Danville, CA 94526

Attn.: Erik Paddleford

Project: 3412
Chan Property

Site: 726 Harrison St.
Oakland, CA

Attached is our report for your samples received on Friday April 6, 2001
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 May 21, 2001 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. You can also contact me via email. My email address is: vvancil@chromalab.com

Sincerely,

Vincent Vancil

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-04-0165

Gas/BTEX and MTBE

Aqua Science Engineers, Inc.

208 West El Pintado
Danville, CA 94526

Attn: Erik Paddleford

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

Project #: 3412

Project: Chan Property

Site: 726 Harrison St.
Oakland, CA

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	04/05/2001 09:35	1
MW-2	Water	04/05/2001 10:35	2
MW-3	Water	04/05/2001 08:55	3
MW-4	Water	04/05/2001 10:05	4

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-04-0165

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

Attn.: Erik Paddleford

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-1**	Lab Sample ID:	**2001-04-0165-001**
Project:	3412 Chan Property	Received:	04/06/2001 18:38
Site:	726 Harrison St. Oakland, CA	Extracted:	04/10/2001 18:34
Sampled:	04/05/2001 09:35	QC-Batch:	2001/04/10-01.03
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	38000	10000	ug/L	200.00	04/10/2001 18:34	
Benzene	2200	100	ug/L	200.00	04/10/2001 18:34	
Toluene	180	100	ug/L	200.00	04/10/2001 18:34	
Ethyl benzene	290	100	ug/L	200.00	04/10/2001 18:34	
Xylene(s)	590	100	ug/L	200.00	04/10/2001 18:34	
MTBE	35000	1000	ug/L	200.00	04/10/2001 18:34	
Surrogate(s)						
Trifluorotoluene	89.8	58-124	%	1.00	04/10/2001 18:34	
4-Bromofluorobenzene-FID	62.9	50-150	%	1.00	04/10/2001 18:34	

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-04-0165

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

Attn.: Erik Paddleford

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-2**	Lab Sample ID:	**2001-04-0165-002**
Project:	3412 Chan Property	Received:	04/06/2001 18:38
Site:	726 Harrison St. Oakland, CA	Extracted:	04/10/2001 12:46
Sampled:	04/05/2001 10:35	QC-Batch:	2001/04/10-01.03
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/10/2001 12:46	
Benzene	ND	0.50	ug/L	1.00	04/10/2001 12:46	
Toluene	ND	0.50	ug/L	1.00	04/10/2001 12:46	
Ethyl benzene	ND	0.50	ug/L	1.00	04/10/2001 12:46	
Xylene(s)	ND	0.50	ug/L	1.00	04/10/2001 12:46	
MTBE	ND	5.0	ug/L	1.00	04/10/2001 12:46	
Surrogate(s)						
4-Bromofluorobenzene	115.4	50-150	%	1.00	04/10/2001 12:46	
4-Bromofluorobenzene-FID	97.3	50-150	%	1.00	04/10/2001 12:46	

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

Attn.: Erik Paddleford

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-3**	Lab Sample ID:	**2001-04-0165-003**
Project:	3412 Chan Property	Received:	04/06/2001 18:38
Site:	726 Harrison St. Oakland, CA	Extracted:	04/11/2001 11:17
Sampled:	04/05/2001 08:55	QC-Batch:	2001/04/11-01.03
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	1700	1000	ug/L	20.00	04/11/2001 11:17	g
Benzene	ND	10	ug/L	20.00	04/11/2001 11:17	
Toluene	ND	10	ug/L	20.00	04/11/2001 11:17	
Ethyl benzene	ND	10	ug/L	20.00	04/11/2001 11:17	
Xylene(s)	ND	10	ug/L	20.00	04/11/2001 11:17	
MTBE	1900	100	ug/L	20.00	04/11/2001 11:17	
Surrogate(s)						
Trifluorotoluene	87.3	58-124	%	20.00	04/11/2001 11:17	
4-Bromofluorobenzene-FID	74.5	50-150	%	20.00	04/11/2001 11:17	

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

Attn.: Erik Paddleford

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-4**	Lab Sample ID:	**2001-04-0165-004**
Project:	3412 Chan Property	Received:	04/06/2001 18:38
Site:	726 Harrison St. Oakland, CA	Extracted:	04/10/2001 18:03
Sampled:	04/05/2001 10:05	QC-Batch:	2001/04/10-01.03
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	810	250	ug/L	5.00	04/10/2001 18:03	g
Benzene	ND	2.5	ug/L	5.00	04/10/2001 18:03	
Toluene	ND	2.5	ug/L	5.00	04/10/2001 18:03	
Ethyl benzene	ND	2.5	ug/L	5.00	04/10/2001 18:03	
Xylene(s)	ND	2.5	ug/L	5.00	04/10/2001 18:03	
MTBE	620	25	ug/L	5.00	04/10/2001 18:03	
Surrogate(s)						
Trifluorotoluene	94.9	58-124	%	5.00	04/10/2001 18:03	
4-Bromofluorobenzene-FID	68.6	50-150	%	5.00	04/10/2001 18:03	

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

Attn.: Erik Paddleford

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

Method Blank | **Water** | **QC Batch # 2001/04/10-01.03**

MB: 2001/04/10-01.03-008

Date Extracted: 04/10/2001 11:05

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	04/10/2001 11:05	
Benzene	ND	0.5	ug/L	04/10/2001 11:05	
Toluene	ND	0.5	ug/L	04/10/2001 11:05	
Ethyl benzene	ND	0.5	ug/L	04/10/2001 11:05	
Xylene(s)	ND	0.5	ug/L	04/10/2001 11:05	
MTBE	ND	5.0	ug/L	04/10/2001 11:05	
Surrogate(s)					
Trifluorotoluene	123.6	58-124	%	04/10/2001 11:05	
4-Bromofluorobenzene-FID	94.8	50-150	%	04/10/2001 11:05	

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

Attn: Erik Paddleford

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) Water **QC Batch # 2001/04/10-01.03**

LCS: 2001/04/10-01.03-006 Extracted: 04/10/2001 10:04 Analyzed 04/10/2001 10:04

LCSD: 2001/04/10-01.03-007 Extracted: 04/10/2001 10:34 Analyzed 04/10/2001 10:34

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	496	522	500	500	99.2	104.4	5.1	75-125	20		
Surrogate(s)											
4-Bromofluorobenzene-FI	446	453	500	500	89.2	90.6		50-150			

To: **Aqua Science Engineers, Inc.**
Attn: Erik Paddleford

Test Method: 8020
Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) Water **QC Batch # 2001/04/11-01.03**

LCS: 2001/04/11-01.03-004 Extracted: 04/11/2001 09:05 Analyzed 04/11/2001 09:05
LCSD: 2001/04/11-01.03-005 Extracted: 04/11/2001 09:36 Analyzed 04/11/2001 09:36

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Benzene	98.4	98.6	100.0	100.0	98.4	98.6	0.2	77-123	20		
Toluene	96.7	98.0	100.0	100.0	96.7	98.0	1.3	78-122	20		
Ethyl benzene	96.4	99.2	100.0	100.0	96.4	99.2	2.9	70-130	20		
Xylene(s)	289	299	300	300	96.3	99.7	3.5	75-125	20		
Surrogate(s)											
Trifluorotoluene	513	523	500	500	102.6	104.6		58-124			

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

Attn: Erik Paddleford

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2001/04/11-01.03**

LCS: 2001/04/11-01.03-006 Extracted: 04/11/2001 10:07 Analyzed 04/11/2001 10:07

LCSD: 2001/04/11-01.03-007 Extracted: 04/11/2001 10:38 Analyzed 04/11/2001 10:38

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	433	453	500	500	86.6	90.6	4.5	75-125	20		
Surrogate(s)											
4-Bromofluorobenzene-FI	432	446	500	500	86.4	89.2		50-150			

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-04-0165

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

Attn.: Erik Paddleford

Test Method: 8020

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Matrix Spike (MS / MSD) **Water** **QC Batch # 2001/04/10-01.03**

Sample ID: **MW-2** Lab Sample ID: 2001-04-0165-002

MS: 2001/04/10-01.03-033 Extracted: 04/11/2001 00:11 Analyzed: 04/11/2001 00:11 Dilution: 1.0

MSD: 2001/04/10-01.03-034 Extracted: 04/11/2001 00:42 Analyzed: 04/11/2001 00:42 Dilution: 1.0

Compound	Conc. [ug/L]			Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD	[%]	Recovery	RPD	MS	MSD
Benzene	107	101	ND	100.0	100.0	107.0	101.0	5.8	65-135	20		
Toluene	104	101	ND	100.0	100.0	104.0	101.0	2.9	65-135	20		
Ethyl benzene	105	104	ND	100.0	100.0	105.0	104.0	1.0	65-135	20		
Xylene(s)	308	305	ND	300	300	102.7	101.7	1.0	65-135	20		
Surrogate(s)												
Trifluorotoluene	574	552		500	500	114.8	110.4		58-124			

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

Attn: Erik Paddleford

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.

2001-04-0165

58501

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

Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) (PHONE NO.)

PROJECT NAME Chan Property JOB NO. 3412

ADDRESS 726 Harrison St. Oakland

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

5 Day TAT

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8220)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240/8260)	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 EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	TPH-G/BTEX/5 OXY'S (EPA 8260)	TPH-G/BTEX/7 OXY'S / HVOCS (EPA 8260)			COMPOSITE
MW-1	4/5	935	Water	3	X																	
MW-2		1035			X																	
MW-3		855			X																	
MW-4		1005			X																	

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
(signature) (time)	(signature) (time) 1047	(signature) (time) 1830	Denise Harrington (signature) (time)	3.8°C
Paddle Rd (printed name) (date)	B Morton (printed name) 4-6-01 (date)	B Morton (printed name) (date) 4/6/01	D. Harrington (printed name) (date)	TURN AROUND TIME: STANDARD 24Hr 48Hr 72Hr
Company- ASE	Company- STL-CL	Company- STL-CL	Company- STL-CL 4/6/01 @ 1838	OTHER: