aqua science engineers inc.

March 22, 1999

GROUNDWATER MONITORING REPORT
FIRST QUARTER 1998
ASE JOB NO. 3011

at
Zima Center Corporation
2951 High Street
Oakland, California 94619

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
Zima Center Corporation
2951 High Street
Oakland, CA 94619

Property Owner
Zima Center Corporation
13775 Campus Drive
Oakland, CA 94605
Attn.: Mr. Mohammad Mashhoon
(510) 436-4700

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
Alameda County Health Care Services Agency (ACHCSA)
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502
Attn.: Ms. Madhulla Logan
(510) 293-8695

California Regional Water Quality Control Board (RWQCB),
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
(510) 622-2423

The following is a report detailing the results of the fourth quarter 1998 groundwater sampling at the above referenced site (Figure 2).

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On March 5, 1999, ASE staff geologist Greg Schramm measured the depth to water in each site groundwater monitoring well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen using a product thickness bailer. No free-floating hydrocarbons or sheen were present in any site monitoring well. Groundwater elevations are presented in Table One.

Since a sock of Oxygen Releasing Compound (ORC) was present in monitoring wells MW-4 and MW-5, these ORC socks had to be removed before a groundwater level could be recorded in these wells. Upon removing these socks, the water level in these wells dropped as water levels do during a "slug test." For this reason, the measured water levels are not representative of actual waters beneath the site. For this reason, a groundwater potentiometric surface map was not prepared this quarter. However, the groundwater potentiometric surface map for July 23, 1998 is presented as Figure 2. Potentiometric surface maps for this site have generally shown groundwater flow to southeast. However, the distribution of hydrocarbons in groundwater suggests a northward groundwater flow direction.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSES

On March 5, 1999, ASE staff geologist Greg Schramm collected groundwater samples from monitoring wells MW-2, MW-5, and MW-6. Prior to sampling, the wells were purged of four well casing volumes of groundwater using a pre-cleaned electric pump. Temperature, pH and conductivity were monitored during purge and samples were not taken until these values 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 containing hydrochloric acid as a preservative, capped, labeled and placed in coolers with wet ice for transport to a California state certified analytical laboratory, Chromalab, Inc. of Pleasanton, California (ELAP #1094), under appropriate chain-of-custody documentation. Copies of the well sampling field logs are included as Appendix A.

The groundwater samples collected from monitoring wells MW-2, MW-5 and MW-6 were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 5030/8015M, benzene, toluene, ethylbenzene, and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8020.

The analytical results for this and previous sampling events are presented in Table Two, and the certified laboratory report and chain-of-custody documentation are included as Appendix B.

4.0 GROUNDWATER REMEDIATION

Between May 28, 1997 and June 24, 1997, 2,550 lbs. of Oxygen Releasing Compound (ORC) were injected into the borings along the northern and eastern sides of the existing underground storage tanks (USTs). This drilling and ORC injection was performed by Fast-Tek Engineering Support Services of San Rafael, California on May 28 and 29, 1997, Soils Exploration Services of Benicia, California on May 30, 1997 and En Prob Environmental Probing of Oroville, California on June 24, 1997.

On August 22, September 22, December 6, 1997, and March 3, 1998, ASE measured the dissolved oxygen (DO) in groundwater from each monitoring well. DO substantially increased in all site monitoring wells since the ORC injection was performed. A DO increase in groundwater will stimulate aerobic biodegradation of petroleum hydrocarbons. DO concentration data is presented in Table Three.

On August 21, 1998, at the request of our client, ASE installed ORC socks in monitoring wells MW-4 and MW-5 to again increase the amount of DO in groundwater beneath the site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

In general, there has been a significant decrease in TPH-G, BTEX and MTBE concentrations detected at the site this quarter. Hydrocarbon concentartions detected in groundwater samples collected from monitoring well MW-2 are at the lowest levels since the March 1998 sampling. Hydrocarbon concentartions detected in groundwater samples collected from monitoring well MW-5 are also significanlty lower than last quarter. Benzene, toluene, and total xylenes decreased by an order of magnitude, and total xylene concentrations are now below the Department of Toxic Substances Control (DTSC) maximum contamination level (MCL) for drinking water. Groundwater samples collected from monitoring well MW-6 had very low concentrations of TPH-G, toluene, ethlybenzene, and total xylenes, all are below the DTSC MCL for drinking water.

The significant decreases in hydrocarbon concentrations in groundwater this quarter appear to be related to the stoppage of on-going releases of

gasoline to the subsurface as reported in ASE's letter dated January 11, 1999.

ASE recommends that quarterly groundwater sampling continue at the site. The next monitoring event is scheduled for June 1999.

6.0 REPORT LIMITATIONS

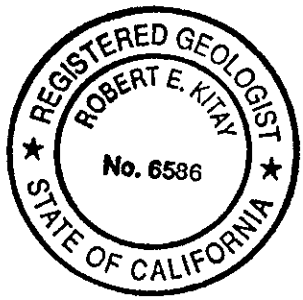
The results presented in this report represent the conditions at the time of the groundwater sampling, at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the 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.

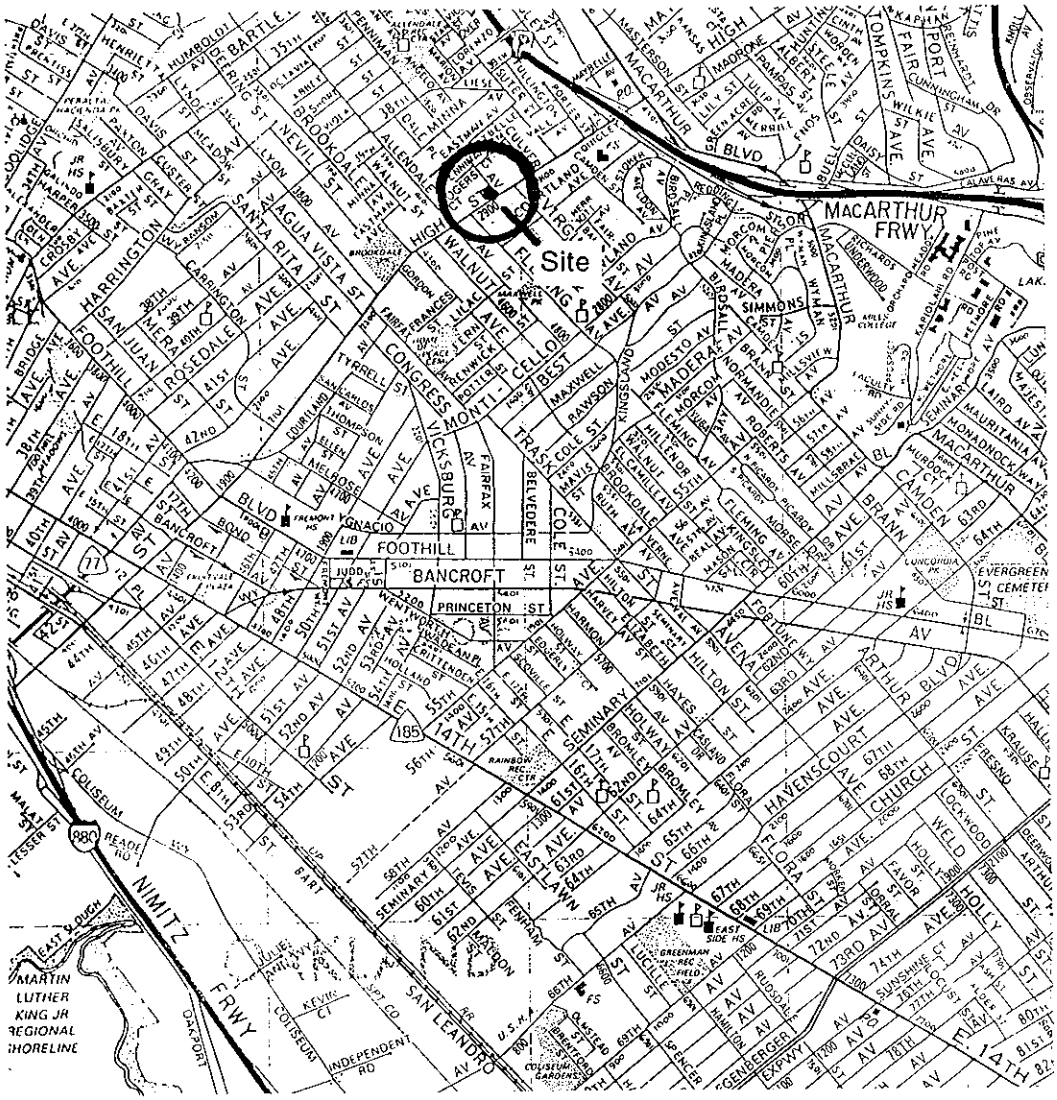
Greg Schramm
Staff Geologist



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

Attachments: Figures 1 and 2
Tables One, Two and Three
Appendices A and B

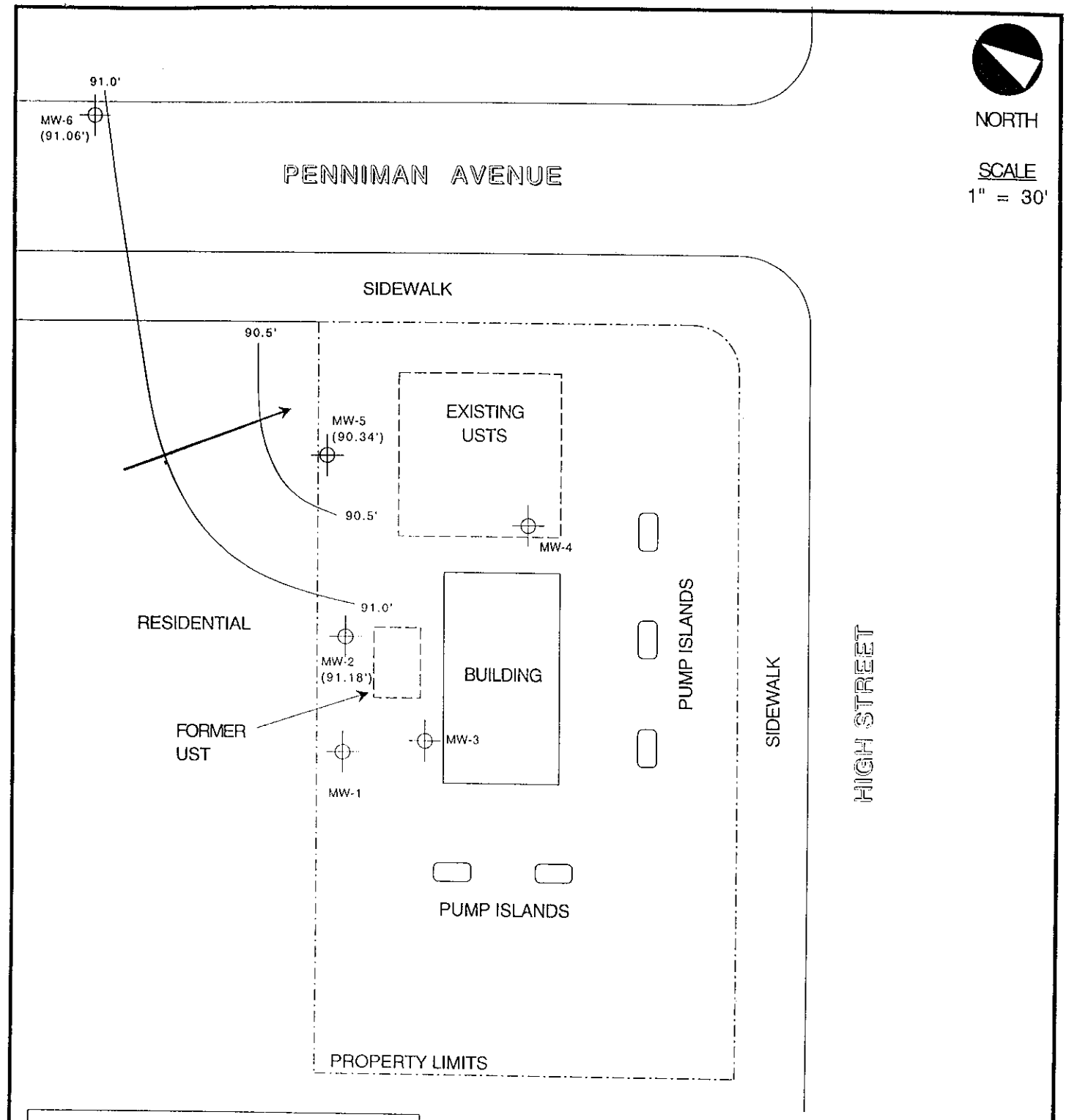
FIGURES



SITE LOCATION MAP

ZIMA CENTER CORPORATION
2951 HIGH STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | FIGURE 1



LEGEND

MW-6 (91.06') — Monitoring well with groundwater elevation

91.0' — Groundwater elevation contour

Approximate groundwater flow direction

GROUNDWATER ELEVATION CONTOUR MAP - 07/23/98

ZIMA CENTER CORPORATION
2951 HIGH STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | FIGURE 2

TABLES

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	02-23-95	97.62	5.89	91.73
	05-26-95		5.20	92.42
	08-23-95		8.67	88.95
	12-13-96		4.61	93.01
	01-16-97		3.79	93.83
	03-27-97		5.87	91.75
	06-27-97		8.33	89.29
	09-22-97		9.62	87.90
	12-06-97		5.35	92.27
	03-23-98		4.02	93.60
	03-05-99		**3.16**	**94.46**
MW-2	02-23-95	97.87	6.81	91.06
	05-26-95		4.90	92.97
	08-23-95		8.33	89.54
	12-13-96		6.85	91.02
	01-16-97		1.54	96.33
	03-27-97		5.51	92.36
	06-27-97		8.43	89.44
	09-22-97		9.50	88.37
	12-06-97		6.81	91.06
	03-23-98		2.85	95.02
	07-23-98		6.69	91.18
	11-23-98		8.04	89.83
	03-05-99		**1.50**	**96.37**
MW-3	02-23-95	97.03	4.21	92.82
	05-26-95		6.44	90.59
	08-23-95		8.69	88.34
	12-13-96		5.60	91.43
	01-16-97		5.28	91.75
	03-27-97		6.64	90.39
	06-27-97		8.35	88.68
	09-22-97		9.42	87.61
	12-06-97		6.38	90.65
	03-23-98		5.42	91.61
	03-05-99		**4.81**	**92.22**

(Continued)

TABLE ONE (Cont'd)

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-4	02-23-95	96.77	6.25	92.07
	05-26-95		6.18	90.59
	08-23-95		8.55	88.22
	12-13-96		5.86	90.91
	01-16-97		5.79	90.98
	03-27-97		7.37	89.40
	06-27-97		8.75	88.02
	09-22-97		9.31	87.46
	12-06-97		6.25	90.52
	03-23-98		6.07	90.70
	03-05-99		**12.16**	**84.61**
MW-5	12-13-96	98.32	6.25	92.07
	01-16-97		6.32	92.00
	03-27-97		7.51	90.81
	06-27-97		8.96	89.36
	09-22-97		9.38	88.94
	12-06-97		6.01	92.31
	03-23-98		6.60	91.72
	07-23-98		7.98	90.34
	11-23-98		11.20	87.12
	03-05-99		**10.14**	**88.18**
MW-6	01-16-97	98.16	5.12	93.04
	03-27-97		6.55	91.61
	06-27-97		8.39	89.77
	09-22-97		9.14	88.99
	12-06-97		5.41	92.75
	03-23-98		5.40	92.76
	07-23-98		7.10	91.06
	11-23-98		7.80	90.07
	03-05-99		**4.82**	**93.34**

TABLE TWO

Certified Analytical Results of **GROUNDWATER** Samples
All Results are in **Parts Per Billion (ppb)**

Sample I.D.	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-1						
02-23-95	<50	<0.5	<0.5	<0.5	<0.5	---
05-26-95	<50	<0.5	<0.5	<0.5	<0.5	---
08-23-95	<50	<0.5	<0.5	<0.5	<0.5	---
MW-2						
02-23-95	3,300	9.6	13	8	28	---
05-26-95	4,600	39	18	21	39	---
08-23-95	<50	15	6	10	15	---
12-13-96	1,900	110	110	120	330	65
03-27-97	3,900	34	20	86	140	200
06-27-97	2,400	18	<5	6	8.8	2,000
09-22-97	< 5,000	8.4	20	33	100	3,900
12-06-97	3,000	33	40	40	140	2,300
03-23-98	220	3.0	2.8	5.8	13	18
06-10-98	3,400	120	64	160	200	1,900
07-23-98	6,000	340	54	280	390	3,300
09-16-98	3,700	77	<25	80	69	5,500
11-23-98	< 10,000	< 100	150	< 100	180	9,100
03-05-99	**1,000**	**20**	**31**	**38**	**100**	**510**
MW-3						
02-23-95	<50	<0.5	<0.5	<0.5	<0.5	---
05-26-95	<50	<0.5	<0.5	<0.5	<0.5	---
08-23-95	<50	<0.5	<0.5	<0.5	<0.5	---
MW-4						
06-26-96	2,500	230	64	99	110	5,700
03-27-97	6,200	300	150	160	310	7,100
MW-5						
12-13-96	3,600	180	350	81	510	430
03-27-97	120,000	28,000	16,000	2,600	10,000	64,000
06-27-97	6,300	10,000	2,400	290	4,500	43,000
09-22-97	< 50,000	7.9	3.3	0.63	3.3	30,000
12-06-97	< 5,000*	33	12	<5.0	7.3	33,000
03-23-98	29,000	150	160	130	320	34,000
06-10-98	53,000	7,000	2,400	540	3,400	67,000
07-23-98	36,000	1,000	270	< 120	740	51,000
09-16-98	56,000	3,400	1,300	430	1,800	84,000
11-23-98	63,000	5,700	2,900	500	2,200	87,000
03-05-99	**42,000**	**< 250**	**< 250**	**< 250**	**< 250**	**38,000**
DTSC MCLs	NE	1	150	700	1,750	35¥

(continued)

TABLE TWO (cont'd)
Certified Analytical Results of **GROUNDWATER** Samples
All Results are in **Parts Per Billion (ppb)**

Sample I.D.	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-6						
01-13-97	<50	<0.5	<0.5	<0.5	<0.5	<5
03-27-97	<50	<0.5	<0.5	<0.5	<0.5	<5
06-27-97	<50	<0.5	<0.5	<0.5	<0.5	<5
09-22-97	<50	<0.5	<0.5	<0.5	<0.5	24
12-06-97	94	<0.5	<0.5	<0.5	<0.5	<5
03-23-98	<50	<0.5	<0.5	<0.5	<0.5	<5
06-10-98	<50	<0.5	<0.5	<0.5	<0.5	<5
07-23-98	<50	<0.5	<0.5	<0.5	<0.5	<5
09-16-98	<50	<0.5	<0.5	<0.5	<0.5	<5
11-23-98	Inaccessible due to rainwater runoff					
03-05-99	**55**	**< 0.5**	**0.92**	**0.5**	**1.3**	**< 5.0**
DTSC MCLs	NE	1	150	700	1,750	35¥
EPA METHOD	5030/ 8015M	8020	8020	8020	8020	8020

Notes:
DTSC MCL = Department of Toxic Substances Control maximum level for drinking water
¥ = DTSC interim action level; MCL not established
NE = DTSC MCLs and RALs not established
* = Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile. If quantified using Gasoline's response factor, concentration would equal 24,000 ppb.
--- = Not Analyzed

TABLE THREE

Summary of **Dissolved Oxygen Results** in Groundwater
All Results in **Parts Per Million (ppm)**

Sample I.D.	Before Purging	After Purging
MW-1		
06-27-97	0.99	---
08-20-97	0.64	0.96
09-22-97	1.60	---
12-06-97	1.30	---
03-03-98	0.86	---
06-10-98	0.90	---
MW-2		
06-27-97	0.86	0.94
08-20-97	0.43	0.81
09-22-97	1.15	3.40
12-06-97	1.52	4.88
03-03-98	5.12	4.64
06-10-98	0.93	0.97
MW-3		
06-27-97	1.26	---
08-20-97	1.13	1.29
09-22-97	2.75	---
12-06-97	3.15	---
03-03-98	0.70	---
06-10-98	0.78	---
MW-4		
06-27-97	0.97	---
08-20-97	5.50	6.18
09-22-97	11.80	---
12-06-97	5.15	---
03-03-98	1.08	---
06-10-98	1.21	---
MW-5		
06-27-97	0.71	8.70
08-20-97	>20.00	>20.00
09-22-97	>20.00	>20.00
12-06-97	19.20	19.17
03-03-98	18.19	17.14
06-10-98	1.92	1.87

TABLE THREE
(continued)

Summary of **Dissolved Oxygen Results** in Groundwater
All Results in **Parts Per Million (ppm)**

Sample I.D.	Before Purging	After Purging
MW-6		
06-27-97	0.61	0.89
08-20-97	0.69	1.02
09-22-97	1.10	2.90
12-06-97	2.11	2.50
03-03-98	1.03	1.42
06-10-98	1.10	1.06

Notes:
--- = Well not purged

APPENDIX A

Well Sampling Field Logs

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WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center
Job #: 3011 Date of sampling: 3/5
Well Name: mw-1 Sampled by: GS
Total depth of well (feet): 24.80 Well diameter (inches): 2
Depth to water before sampling (feet): 3.16
Thickness of floating product if any: _____
Depth of well casing in water (feet): _____
Number of gallons per well casing volume (gallons): _____
Number of well casing volumes to be removed: _____
Req'd volume of groundwater to be purged before sampling (gallons): _____
Equipment used to purge the well: _____
Time Evacuation Began: _____ Time Evacuation Finished: _____
Approximate volume of groundwater purged: _____
Did the well go dry?: _____ After how many gallons: _____
Time samples were collected: _____
Depth to water at time of sampling: _____
Percent recovery at time of sampling: _____
Samples collected with: _____
Sample color: _____ Odor: _____
Description of sediment in sample: _____

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center
Job #: 3011 Date of sampling: 3/5
Well Name: MW-2 Sampled by: GS
Total depth of well (feet): 19.90 Well diameter (inches): 2
Depth to water before sampling (feet): 1.50
Thickness of floating product if any: —
Depth of well casing in water (feet): 18.4
Number of gallons per well casing volume (gallons): 2.94
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 11.78
Equipment used to purge the well: electric pump
Time Evacuation Began: 11:04 Time Evacuation Finished: 11:15
Approximate volume of groundwater purged: 12
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 11:20
Depth to water at time of sampling: —
Percent recovery at time of sampling: —
Samples collected with: dedicated bailer
Sample color: clear Odor: mild HC
Description of sediment in sample: v. few f. brown

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	61.6	4.30	315
2	63.8	4.51	371
3	65.9	4.82	333
4	66.3	4.80	326

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-2	3	40ml VOA	Y/Cl	Yes	TPHg (BTEX) MTBE

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WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center
Job #: 3011 Date of sampling: 3/5
Well Name: MW-3 Sampled by: GS
Total depth of well (feet): ~~19.90~~ 25.00 Well diameter (inches): 2
Depth to water before sampling (feet): ~~1.50~~ 4.81
Thickness of floating product if any: _____
Depth of well casing in water (feet): _____
Number of gallons per well casing volume (gallons): _____
Number of well casing volumes to be removed: _____
Req'd volume of groundwater to be purged before sampling (gallons): _____
Equipment used to purge the well: _____
Time Evacuation Began: _____ Time Evacuation Finished: _____
Approximate volume of groundwater purged: _____
Did the well go dry?: _____ After how many gallons: _____
Time samples were collected: _____
Depth to water at time of sampling: _____
Percent recovery at time of sampling: _____
Samples collected with: _____
Sample color: _____ Odor: _____
Description of sediment in sample: _____

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center
Job #: 3011 Date of sampling: 3/5
Well Name: MW-4 Sampled by: GS
Total depth of well (feet): ~~25.02~~ 24.36 Well diameter (inches): 2
Depth to water before sampling (feet): ~~4.81~~ 12.16
Thickness of floating product if any:
Depth of well casing in water (feet):
Number of gallons per well casing volume (gallons):
Number of well casing volumes to be removed:
Req'd volume of groundwater to be purged before sampling (gallons):
Equipment used to purge the well:
Time Evacuation Began: Time Evacuation Finished:
Approximate volume of groundwater purged:
Did the well go dry?: After how many gallons:
Time samples were collected:
Depth to water at time of sampling:
Percent recovery at time of sampling:
Samples collected with:
Sample color: Odor:
Description of sediment in sample:

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity

SAMPLES COLLECTED

Sample	# of containers	Volume & Type Container	Preserved	Iced?	Analysis

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WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center
Job #: 304 Date of sampling: 3/5
Well Name: MW-5 Sampled by: GS
Total depth of well (feet): 27.19 Well diameter (inches): 2
Depth to water before sampling (feet): 10.14
Thickness of floating product if any: —
Depth of well casing in water (feet): 17.05
Number of gallons per well casing volume (gallons): 2.73
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 10.9
Equipment used to purge the well: electric pump
Time Evacuation Began: 11:42 Time Evacuation Finished: 12:03
Approximate volume of groundwater purged: 11
Did the well go dry?: No After how many gallons: —
Time samples were collected: 12:04
Depth to water at time of sampling: —
Percent recovery at time of sampling: —
Samples collected with: dedicated bailer
Sample color: clear Odor: none
Description of sediment in sample: none

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	66.6	6.33	1256
2	65.4	5.73	1317
3	65.9	6.19	1211
4	66.3	6.25	1200

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-5	3	40ml VOA	Y/HCl	Yes	TPH's/BTEX/MTBE

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center
Job #: 301 Date of sampling: 3/5
Well Name: MW-6 Sampled by: GS
Total depth of well (feet): 29.22 Well diameter (inches): 2
Depth to water before sampling (feet): 4.82
Thickness of floating product if any: —
Depth of well casing in water (feet): 23.4
Number of gallons per well casing volume (gallons): 3.74
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 15
Equipment used to purge the well: electric pump
Time Evacuation Began: 10:22 Time Evacuation Finished: 10:35
Approximate volume of groundwater purged: 15
Did the well go dry?: No After how many gallons: —
Time samples were collected: 10:40
Depth to water at time of sampling: —
Percent recovery at time of sampling: —
Samples collected with: dedicated bailer
Sample color: clear Odor: none
Description of sediment in sample: Y. brown

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	61.6	5.29	544
2	65.1	6.00	559
3	66.1	5.58	505
4	65.9 ~~66.9~~	5.459	528

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-6	3	40ml VOA	YHCl	Yes	TPHg/BTEX/MTBE

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

CHROMALAB, INC.

Environmental Services (SDB)

March 16, 1999

Submission #: 9903105

AQUA SCIENCE ENGINEERS, INC

Atten: Greg Schramm

Project: ZIMA
Received: March 8, 1999

Project#: 3011

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-2
Spl#: 231563
Sampled: March 5, 1999

Matrix: WATER
*Run#:*17841

Analyzed: March 12, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	1000	250	N.D.	97	5
MTBE	510	25	N.D.	89	5
BENZENE	20	2.5	N.D.	99	5
TOLUENE	31	2.5	N.D.	96	5
ETHYL BENZENE	38	2.5	N.D.	99	5
XYLENES	100	2.5	N.D.	99	5

Vincent Vancil
Analyst

for
Michael Verona
Operations Manager

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Federal ID #68-0140157

PM V132 O:BTEXQC02
VINCE 15

CHROMALAB, INC.

Environmental Services (SDB)

March 16, 1999

Submission #: 9903105

AQUA SCIENCE ENGINEERS, INC

Atten: Greg Schramm

Project: ZIMA
Received: March 8, 1999

Project#: 3011

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-5
Spl#: 231564
Sampled: March 5, 1999

Matrix: WATER
*Run#:*17841

Analyzed: March 12, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	42000	25000	N.D.	97	500
MTBE	38000	2500	N.D.	89	500
BENZENE	N.D.	250	N.D.	99	500
TOLUENE	N.D.	250	N.D.	96	500
ETHYL BENZENE	N.D.	250	N.D.	99	500
XYLENES	N.D.	250	N.D.	99	500

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile.

Vincent Vancil
Analyst

for
Michael Verona
Operations Manager

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PM V132 O:BTEXQC02
VINCE 15.

CHROMALAB, INC.

Environmental Services (SDB)

March 16, 1999

Submission #: 9903105

AQUA SCIENCE ENGINEERS, INC

Atten: Greg Schramm

Project: ZIMA
Received: March 8, 1999

Project#: 3011

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-6
Spl#: 231565
Sampled: March 5, 1999

Matrix: WATER
*Run#:*17841

Analyzed: March 12, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	55	50	N.D.	97	1
MTBE	N.D.	5.0	N.D.	89	1
BENZENE	N.D.	0.50	N.D.	99	1
TOLUENE	0.92	0.50	N.D.	96	1
ETHYL BENZENE	0.50	0.50	N.D.	99	1
XYLENES	1.3	0.50	N.D.	99	1

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PM V132 O:BTEXQC02
VINCE 15

44902

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.) 820-9391

PROJECT NAME Zima JOB NO. 3011

ADDRESS 2951 High St. DATE 3/5

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-2	3/5	11:26	water	3	X														
mw-5	↓	12:04	↓	↓	X														
mw-6	↓	10:40	↓	↓	X														

SUBN #: 9903183 REP: PM
CLIENT: ASE
DUE: 03/13/99
REF #:44902

2-8 cap
4 VOAs

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
(signature) 9:40 (time)	(signature) 0940 (time)	(signature) 1735 (time)	(signature) A Paredes 1800 (time)	
Greg Schramm 3/8 (printed name) (date)	R Moran 3-8-99 (printed name) (date)	R Moran 3-8-99 (printed name) (date)	A Paredes 3/8/99 (printed name) (date)	
Company- ASE	Company- Cromwell	Company- Cromwell	Company- Cromwell	