

2:32 pm, May 16, 2007

**Alameda County  
Environmental Health**

Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526  
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

April 30, 2007

QUARTERLY GROUNDWATER MONITORING REPORT  
FEBRUARY 2007 GROUNDWATER SAMPLING  
ASE JOB NO. 3934

at  
Albany Hill Mini Mart  
800 San Pablo Avenue  
Albany, CA 94706

Prepared by:  
AQUA SCIENCE ENGINEERS, INC.  
55 Oak Court, Suite 220  
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(925) 820-9391



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## 1.0 INTRODUCTION

### Site Location (Site), See Figure 1

Albany Hill Mini Mart  
800 San Pablo Avenue  
Albany, CA 94706

### Responsible Party

Dr. Joginder Sikand  
1300 Ptarmigan Drive #1  
Walnut Creek, CA 94595

### Environmental Consulting Firm

Aqua Science Engineers, Inc. (ASE)  
55 Oak Court, Suite 220  
Danville, CA 94526  
Contact: Robert Kitay, Senior Geologist  
(925) 820-9391

### Agency Review

Alameda County Health  
Care Services Agency (ACHCSA)  
1131 Harbor Bay Pkwy  
Suite 250  
Alameda, CA 94502  
Contact: Jerry Wickham  
(510) 567-6791

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

The following is a report detailing the results of the February 2007 quarterly groundwater sampling at the Albany Hill Mini Mart Property. This sampling was conducted as required by the ACHCSA and RWQCB. ASE prepared this report on behalf of Dr. Joginder Sikand, the property owner and responsible party.



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## 2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On February 5, 2007, ASE measured the depth to groundwater in all ten 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 sheen or free-floating hydrocarbons were observed in any of the monitoring wells. Groundwater elevation data is presented in Table One. A groundwater potentiometric surface map is presented as Figure 2. The groundwater flow direction is to the north, northeast, and east with a gradient of between 0.005 and 0.01-ft/ft this quarter.

## 3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On February 5, 2007, ASE collected groundwater samples from all ten monitoring wells. Prior to sampling, each monitoring well was purged of at least three well casing volumes of groundwater using disposable polyethylene bailers. 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 the same polyethylene bailers and were decanted from the bottom of the bailers using low-flow emptying devices 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 Kiff Analytical of Davis, California (ELAP #2236) under appropriate chain-of-custody documentation. Petroleum hydrocarbon odors were noted during the purging and sampling of all the monitoring wells. Well sampling field logs are presented in Appendix A.

The well purge water was placed into a 55-gallon steel drum and labeled for temporary storage until proper disposal could be arranged.

The groundwater samples were analyzed by Kiff for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene, and total xylenes (collectively known as BTEX), and fuel oxygenates including methyl tertiary-butyl ether (MTBE) by EPA Method 8260B, and total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 8015. The analytical results for this and previous sampling events are summarized in Table Two. The most recent certified analytical report and chain-of-custody documentation are included as Appendix B.

## 4.0 RESULTS AND CONCLUSIONS

- Concentrations of TPH-G and MTBE detected in groundwater samples collected from monitoring well MW-1 decreased slightly this quarter.
- Concentrations of TPH-G, benzene and MTBE detected in groundwater samples collected from monitoring well MW-2 increased slightly this quarter.
- Concentrations of benzene and total xylenes detected in groundwater samples collected from monitoring well MW-3 increased slightly this quarter, while TBA and MTBE concentrations decreased slightly in the same sample.



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- Concentrations of TPH-G, benzene, ethyl benzene, total xylenes and MTBE detected in groundwater samples collected from monitoring well MW-4 increased this quarter.
- Concentrations of TPH-G and ethyl benzene detected in groundwater samples collected from monitoring well MW-5R increased this quarter, while benzene, total xylenes and MTBE concentrations decreased in the same sample.
- Concentrations of TBA and MTBE detected in groundwater samples collected from monitoring well MW-6 increased this quarter, while TPH-G and benzene concentrations decreased slightly in the same sample.
- Concentrations of TPH-G, BTEX, TBA and MTBE detected in groundwater samples collected from monitoring well MW-7 increased this quarter.
- Concentrations of benzene and TBA detected in groundwater samples collected from monitoring well MW-8 increased this quarter, while TPH-G, toluene, ethyl benzene, total xylenes, TAME and MTBE decreased in the same sample.
- Concentrations of benzene, toluene, and ethyl benzene detected in groundwater samples collected from monitoring well MW-9 increased this quarter, while TPH-G and total xylenes decreased in the same sample.
- Concentrations of TAME, TBA and MTBE detected in groundwater samples collected from monitoring well MW-10 decreased this quarter.

#### Concentrations exceeding Environmental Screening Levels<sup>1</sup> (ESLs)

- In MW-1, the TPH-G, benzene and concentrations exceeded the ESLs.
- In MW-3, the benzene and total xylenes concentrations exceeded the ESLs.
- In MW-4, the TPH-G, benzene, and total xylenes concentrations exceeded the ESLs.
- In MW-5R, the TPH-G, benzene, ethyl benzene and total xylene concentrations exceeded the ESLs.
- In MW-6, the TPH-G and benzene concentrations exceeded ESLs.
- In MW-7, the TPH-G, benzene, and total xylene concentrations exceeded ESLs.
- In MW-8, the TPH-G, benzene and total xylenes concentrations exceeded ESLs.
- In MW-9, the TPH-G, benzene and total xylene concentrations exceeded ESLs.

## 5.0 RECOMMENDATIONS

ASE recommends continued groundwater monitoring on a quarterly basis. The next groundwater sampling is scheduled for May 2007. ASE will also be submitting a remedial action plan and will be conducting an investigation to define the extent of hydrocarbons north of the site during the first quarter of 2007.

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<sup>1</sup> As presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region dated February 2005.



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## 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-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

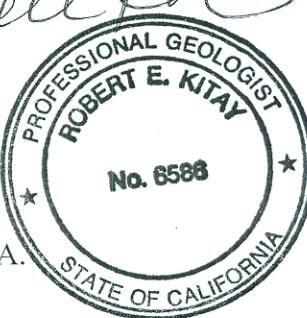
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Michael Rauser  
Project Geologist

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



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

cc: Mr. Jerry Wickham, ACHCSA  
Ms. Betty Graham, RWQCB

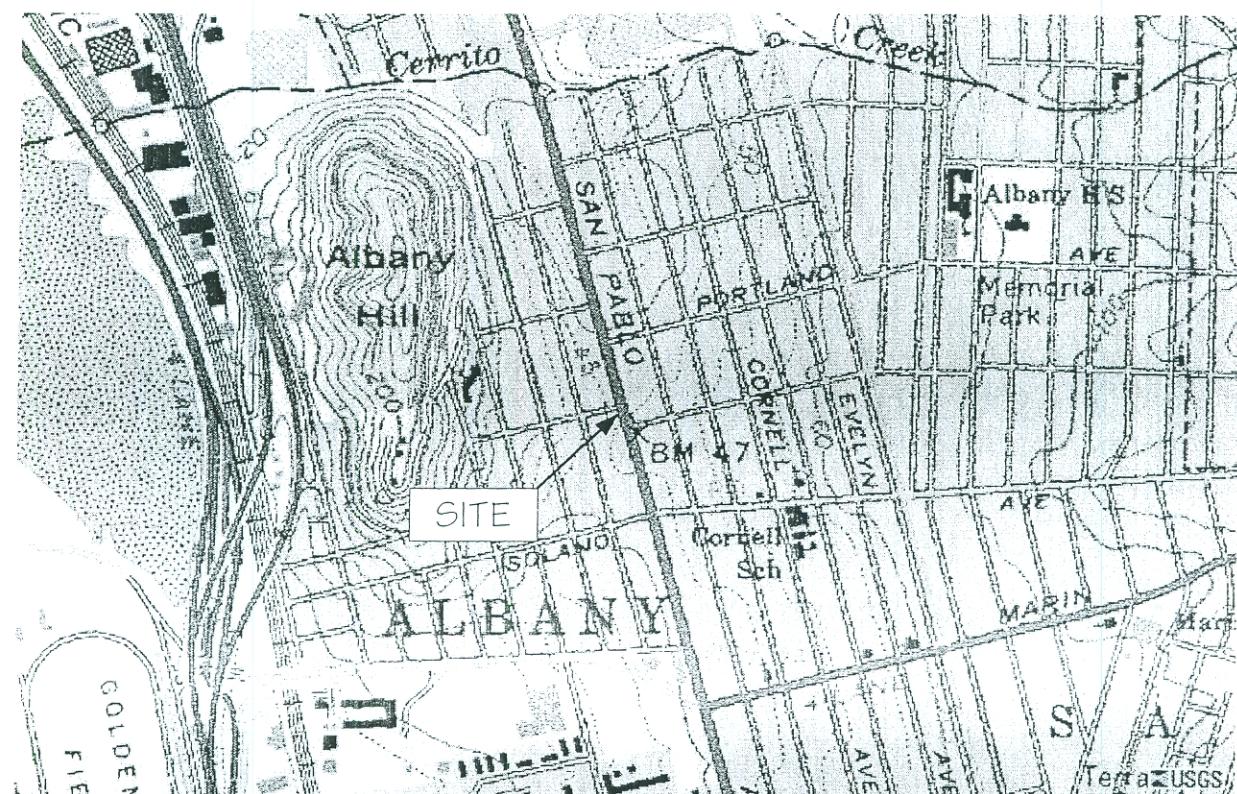


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## **FIGURES**



NORTH



LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

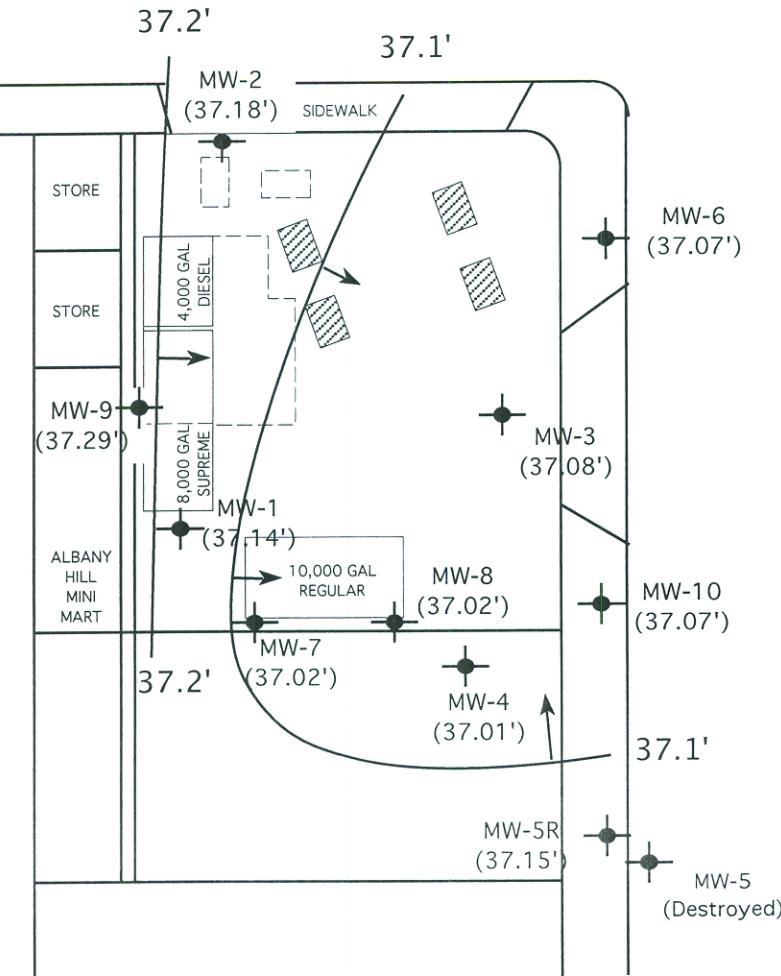
Figure 1



NORTH

SCALE: 1" = 20'

### WASHINGTON AVENUE



### LEGEND

MW-9  
(37.29') MONITORING WELL  
WITH GROUNDWATER ELEVATION IN FEET

GROUNDWATER ELEVATION COUNTOUR LINE  
WITH FLOW DIRECTION

APPROXIMATE FORMER UST LOCATION  
AND AREA OF EXCAVATION

POTENTIOMETRIC  
SURFACE CONTOUR MAP  
FEBRUARY 5, 2007

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 2



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526  
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## **TABLES**

**TABLE ONE**  
 Groundwater Elevation Data  
**Albany Hill Mini Mart**  
 800 San Pablo Avenue, Albany, CA

Well ID	Date of Measurement	Top of Casing Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-1	8/6/99	101.68	11.95	89.73
	11/5/99		12.72	88.96
	2/7/00		10.34	91.34
	5/5/00		10.59	91.09
	8/3/00		11.75	89.93
	11/8/00		11.67	90.01
	2/8/01		11.20	90.48
	6/7/01		11.35	90.33
	9/7/01		11.71	89.97
	12/13/01		10.67	91.01
	6/13/02		11.42	90.26
	9/11/02		12.42	89.26
	2/14/03		10.69	35.73
	9/10/04		13.83	32.59
	12/7/04		12.18	34.24
	4/18/05		9.92	36.50
	6/20/05		10.64	35.78
	10/7/05		12.42	34.00
	12/7/05		11.51	34.91
	3/6/06	48.82	9.35	39.47
	6/27/06		10.07	38.75
	8/24/06		12.02	36.80
	11/20/06		12.02	36.80
	2/5/07		11.68	37.14
MW-2	8/6/99	101.57	10.83	90.74
	11/5/99		11.66	89.91
	2/7/00		9.23	92.34
	5/5/00		9.54	92.03
	8/3/00		10.69	90.88
	11/8/00		10.62	90.95
	2/8/01		10.17	91.40
	6/7/01		10.30	91.27
	9/7/01		10.65	90.92
	12/13/01		9.65	91.92
	6/13/02		10.37	91.20
	9/11/02		11.32	90.25
	2/14/03	45.31	9.59	35.72
	9/10/04		11.78	33.53
	12/7/04		11.13	34.18
	4/18/05		8.71	36.60
	6/20/05		9.60	35.71
	10/7/05		11.39	33.92
	12/7/05		11.49	33.82
	3/6/06	47.71	8.22	39.49
	6/27/06		9.45	38.26
	8/24/06		10.35	37.36
	11/20/06		10.87	36.84
	2/5/07		10.53	37.18

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 Groundwater Elevation Data  
**Albany Hill Mini Mart**  
 800 San Pablo Avenue, Albany, CA

Well ID	Date of Measurement	Top of Casing Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-3	8/6/99	100.33	10.58	89.75
	11/5/99		11.39	88.94
	2/7/00		9.05	91.28
	5/5/00		9.29	91.04
	8/3/00		10.43	89.90
	11/8/00		10.33	90.00
	2/8/01		9.94	90.39
	6/7/01		10.04	90.29
	9/7/01		10.31	90.02
	12/13/01		9.38	90.95
	6/13/02		10.03	90.30
	9/11/02		11.02	89.31
	2/14/03	45.08	9.40	35.68
	9/10/04		12.51	32.57
	12/7/04		11.86	33.22
	4/18/05		8.49	36.59
	6/20/05		9.34	35.74
	10/7/05		11.11	33.97
	12/7/05		10.22	34.86
	3/6/06	47.49	8.84	38.65
	6/27/06		6.07	41.42
	8/24/06		10.26	37.23
	11/20/06		10.52	36.97
	2/5/07		10.41	37.08
MW-4	6/13/02	100.05	10.18	89.87
	9/11/02		11.12	88.93
	2/14/03	45.20	9.51	35.69
	9/10/04		11.59	33.61
	12/7/04		10.91	34.29
	4/18/05		8.62	36.58
	6/20/05		9.45	35.75
	10/7/05		11.20	34.00
	12/7/05		10.30	34.90
	3/6/06	47.61	8.19	39.42
	6/27/06		9.71	37.90
	8/24/06		10.43	37.18
	11/20/06		10.70	36.91
	2/5/07		10.60	37.01
MW-5	6/13/02	98.37	8.88	89.49
	9/11/02		9.95	88.42
	2/14/03	44.12	8.66	35.46
	9/10/04		10.26	33.86
	12/7/04		10.79	33.33
	4/18/05	Well Destroyed by City During Street Construction		
	6/20/05	Well Destroyed by City During Street Construction		

**TABLE ONE**  
 Groundwater Elevation Data  
**Albany Hill Mini Mart**  
 800 San Pablo Avenue, Albany, CA

Well ID	Date of Measurement	Top of Casing Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-5R	10/7/05		10.94	
	12/7/05		9.97	
	3/6/06	47.36	4.93	42.43
	6/27/06		9.47	37.89
	8/24/06		10.10	37.26
	11/20/06		10.00	37.36
	2/5/07		10.21	37.15
MW-6	6/13/02	99.36	8.85	90.51
	9/11/02		9.82	89.54
	2/14/03	43.88	8.21	35.67
	9/10/04		10.33	33.55
	12/7/04		9.83	34.05
	4/18/05		7.08	36.80
	6/20/05		7.52	36.36
	10/7/05		10.92	32.96
	12/7/05		8.85	35.03
	3/6/06	46.27	6.22	40.05
	6/27/06		7.40	38.87
	8/24/06		9.15	37.12
	11/20/06		10.40	35.87
	2/5/07		9.20	37.07
MW-7	6/13/02	100.96	10.95	90.01
	9/11/02		11.90	89.06
	2/14/03	45.59	10.25	35.34
	9/10/04		12.35	33.24
	12/7/04		11.42	34.17
	4/18/05		9.34	36.25
	6/20/05		10.19	35.40
	10/7/05		12.96	32.63
	12/7/05	not sampled		
	3/6/06	48.36	8.92	39.44
	6/27/06		10.41	37.95
	8/24/06		11.21	37.15
	11/20/06		11.46	36.90
	2/5/07		11.34	37.02

**TABLE ONE**  
 Groundwater Elevation Data  
**Albany Hill Mini Mart**  
 800 San Pablo Avenue, Albany, CA

Well ID	Date of Measurement	Top of Casing Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
<b>MW-8</b>	6/13/02	100.54	10.57	89.97
	9/11/02		11.53	89.01
	2/14/03	45.59	9.98	35.61
	9/10/04		11.98	33.61
	12/7/04		11.42	34.17
	4/18/05		8.99	36.60
	6/20/05		9.83	35.76
	10/7/05		11.60	33.99
	12/7/05		11.69	33.90
	3/6/06	47.99	8.58	39.41
	6/27/06		10.06	37.93
	8/24/06		10.77	37.22
<b>MW-9</b>	11/20/06		11.12	36.87
	<b>2/5/07</b>		<b>10.97</b>	<b>37.02</b>
<b>MW-9</b>	2/14/03	46.86	10.84	36.02
	9/10/04		12.97	33.89
	12/7/04		12.84	34.02
	4/18/05		9.75	37.11
	6/20/05		10.83	36.03
	10/7/05		12.59	34.27
	12/7/05		12.56	34.30
	3/6/06	49.24	10.24	39.00
	6/27/06		9.83	39.41
	8/24/06		11.91	37.33
	11/20/06		12.42	36.82
	<b>2/5/07</b>		<b>11.95</b>	<b>37.29</b>
<b>MW-10</b>	10/7/05		10.52	
	12/7/05	not sampled		
	3/6/06	46.90	7.46	39.44
	6/27/06		9.03	37.87
	8/24/06		9.75	37.15
	11/20/06		10.30	36.60
	<b>2/5/07</b>		<b>9.83</b>	<b>37.07</b>

Notes:

Data prior to September 10, 2004, including survey data, is based on tables compiled by AARS.

\* Top of casing elevations were initially surveyed to an arbitrary benchmark. The elevations were resurveyed on November 11, 2002 with respect mean sea level.

**TABLE TWO**  
 Summary of Analytical Results for GROUNDWATER Samples  
**Albany Hill Mini Mart**  
 800 San Pablo Avenue, Albany, CA  
 All results are in parts per billion (ppb)

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-1	8/6/99	1,500	1,200	4.3	2.9	9.1	28	--	--	ND	--
	11/5/99	1,800	1,400	5.1	3.2	8.9	33	--	--	ND	--
	2/7/00	1,100	890	3.3	1.9	5.6	21	--	--	ND	--
	5/7/00	970	650	2.9	1.7	4.9	18	--	--	ND	--
	8/3/00	1,200	270*	190	43.0	41	160	--	--	360	--
	11/8/00	4,200	230*	990	200.0	130	560	--	--	840**	--
	2/8/01	2,800	380*	630	130.0	51	250	--	--	390	--
	6/7/01	650	190	97	13.0	20	62	--	--	320	--
	9/7/01	970	400	260	17.0	44	140	--	--	460	--
	12/13/01	291	< 50	91.7	1.4	17.4	7.2	--	--	499	--
	6/13/02	5,120	2,160*	1,860	22.0	316	318	--	--	325	--
	11/11/02	824	< 50	216	< 5	22	20	--	--	290	--
	2/14/03	1,783	590*	546	5.0	90	52	--	--	321	--
	9/10/04	900	82	210	8.4	52	23	< 0.5	5.1	220	< 0.5
	12/7/04	540	< 80	130	3.1	24	14	< 0.5	< 5.0	240	< 0.5
	4/18/05	1,600	< 200	390	3.6	32	57	< 0.5	< 5.0	240	0.53 1,2-DCA
	6/20/05	2,500	< 300	740	12.0	110	69	< 0.5	5.7	240	< 0.50
	10/7/05	520	130	97	26.0	11	28	< 0.50	< 5.0	190	< 0.50
	12/7/05	220	86	42	11.0	6.2	12	< 0.50	< 5.0	230	< 0.50
	3/6/06	180	69	63	1.6	3.8	2.3	< 0.50	< 0.50	180	< 0.50
	6/27/06	2,800	< 300	1,100	7.1	140	44	< 0.50	9.9	220	< 0.50
	8/24/06	3,200	< 200	1,100	6.6	170	16	< 2.0	< 9.0	250	< 2.0
	11/20/06	630	< 50	170	1.2	22	2.8	< 0.50	6.2	220	< 0.50
	2/5/07	570	< 50	180	1.0	23	3.4	< 0.50	< 5.0	180	< 0.50
MW-2	8/6/99	ND	340	ND	ND	ND	ND	--	--	ND	--
	11/5/99	ND	420	ND	ND	0.7	--	--	--	ND	--
	2/7/00	ND	310	ND	ND	0.6	--	--	--	ND	--
	5/7/00	ND	280	ND	ND	< 1	--	--	--	ND	--
	8/3/00	460	70*	79	3.0	43	8	--	--	3,300	--
	11/8/00	200	120	57	2.0	13	8	--	--	3,000	--
	2/8/01	290	80	50	1.0	0.6	4	--	--	3,100	--
	6/7/01	210	80	18	0.6	3	5	--	--	2,000	--
	9/7/01	230	ND	51	ND	8	8	--	--	2,400	--
	12/13/01	172	ND	53	1.2	7.7	8.4	--	--	1,780	--
	6/13/02	86	< 50	6	6.7	1.1	4.5	--	--	1,830	--
	11/11/02	1,040	< 50	5	1.0	< 1	5	--	--	1,250	--
	2/14/03	82	< 50	8	< 1	1	< 3	--	--	1,520	--
	9/10/04	< 100	72	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	620	< 1.0
	12/7/04	< 150	86	17	< 1.5	< 1.5	< 1.5	< 1.5	< 7.0	540	< 1.5
	4/18/05	280	130	55	< 1.5	4.4	< 1.5	< 1.5	< 20	840	< 1.5
	6/20/05	200	100	34	< 0.90	2.4	2.7	< 0.90	5.2	540	< 0.90
	10/7/05	< 90	150	11	< 0.90	< 0.90	< 0.90	< 0.90	< 5.0	360	< 0.90
	12/7/05	< 90	110	1.5	< 0.90	< 0.90	< 0.90	< 0.90	< 5.0	500	< 0.90
	3/6/06	< 90	88	7.0	< 0.90	< 0.90	< 0.90	< 0.90	5.2	610	< 0.50
	6/27/06	270	150	49	< 0.50	5.1	3.4	0.58	8.9	540	< 0.50
	8/24/06	110	120	13	< 0.50	1.3	< 0.50	< 0.50	< 5.0	480	< 0.50
	11/20/06	56	< 50	5.6	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	330	< 0.50
	2/5/07	98	< 50	28	< 0.50	< 0.50	< 0.50	0.61	< 5.0	500	< 0.50
MW-3	8/6/99	ND	ND	ND	ND	ND	ND	--	--	ND	--
	11/5/99	92	54	ND	ND	0.6	1.7	--	--	ND	--
	2/7/00	120	71	ND	0.6	0.8	2.2	--	--	ND	--
	5/7/00	100	68	ND	ND	0.7	1.9	--	--	ND	--
	8/3/00	910	300*	220	9.0	35	16	--	--	11,000**	--
	11/8/00	990	200	320	0.8	18	9	--	--	8,000	--
	2/8/01	990	110	180	21.0	7	24	--	--	5,200**	--
	6/7/01	370	140	62	4.0	8	13	--	--	6,600**	--
	9/7/01	460	ND	87	1.0	11	25	--	--	9,400**	--
	12/13/01	251	ND	66.8	0.9	2.6	8.4	--	--	6,610	--
	6/13/02	3,630	< 50	41	60.0	41	187	--	--	8,820**	--
	11/11/02	6,210	< 50	150	< 1	5	< 3	--	--	7,770	--
	2/14/03	176	< 50	31	< 1	2	< 3	--	--	5,040	--
	9/10/04	< 1,000	140	110	< 10	< 10	21	20	200	4,400	< 10
	12/7/04	1,000	150	310	19.0	24	50	21	< 100	4,000	< 10
	4/18/05	750	150	170	16.0	33	36	6.1	< 50	1,700	< 5.0
	6/20/05	680	120	140	9.7	20	38	7.4	< 20	1,900	< 4.0
	10/7/05	630	160	140	10.0	11	34	9.2	< 20	2,000	< 4.0
	12/7/05	550	200	128	6.4	7.2	10	11	56	2,400	< 4.0
	3/6/06	88	36	< 2.0	5.3	2.1	4.2	13	1,000	1,000	< 2.0
	6/27/06	7,400	< 1,500	2,800	12	190	56	9.8	110	760	< 4.0
	8/24/06	< 400	130	24	< 4.0	< 4.0	14	9.0	40	2,800	< 4.0
	11/20/06	< 400	< 50	42	< 4.0	4.4	8.7	7.3	71	1,700	< 4.0
	2/5/07	440	< 50	110	4.2	< 4.0	16	7.3	39	1,600	< 4.0

**TABLE TWO**  
**Summary of Analytical Results for GROUNDWATER Samples**  
**Albany Hill Mini Mart**  
**800 San Pablo Avenue, Albany, CA**  
**All results are in parts per billion (ppb)**

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-4	6/13/02	4,460	1,500*	425	409.0	115	730	--	--	32	--
	11/11/02	5,150	2,380*	2,010	74.0	399	252	--	--	< 20	--
	2/14/03	6,360	2,410*	1,560	82.0	274	573	--	--	< 1	--
	9/10/04	1,600	180	370	6.5	68	93	< 1.0	10	13	1.1 (DIPE)
	12/7/04	1,900	< 200	450	8.2	72	100	< 0.9	5.4	9.5	< 0.9
	4/18/05	10,000	< 800	1,500	27.0	420	900	< 1.5	15	18	< 1.5
	6/20/05	6,100	< 600	830	19.0	280	400	< 1.5	17	22	< 1.5
	10/7/05	3,200	<500	660	8.7	110	140	< 1.5	12	14	< 1.5
	12/7/05	1,000	< 200	220	2.5	48	37	< 0.5	< 5.0	12	< 0.5
	3/6/06	1,200	< 300	280	2.1	32	77	0.65	< 0.50	75	1.0 (DIPE) / 0.57(1,2-DCA)
	6/27/06	2,000	< 300	570	4.0	110	120	< 0.90	15	110	1.2(DIPE)
	8/24/06	2,500	< 300	830	6.5	120	120	< 0.90	18	95	< 0.90
	11/20/06	1,900	< 80	590	4.8	37	29	< 1.5	< 1.5	14	< 1.5
	2/5/07	2,700	< 80	970	4.4	53	62	< 1.5	< 12	45	< 1.5
MW-5	6/13/02	536	< 50	6.4	0.6	22	23	--	--	11	--
	11/11/02	3,270	1,230*	< 1	< 1	28	8	--	--	< 1	--
	2/14/03	1,260	610*	9	7.0	22	5	--	--	< 1	--
	9/10/04	1,300	150	2.4	< 0.50	0.77	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/7/04	1,000	< 200	4.1	< 0.50	1.4	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	4/18/05	Improperly Destroyed by City of Albany During Street Improvements									
MW-5R	10/7/05	760	<800	2	< 0.50	8.3	1.2	< 0.50	< 5.0	< 0.50	< 0.50
	12/7/05	5,200	< 2,000	36	1.0	320	15	< 0.50	< 5.0	< 0.50	< 0.50
	3/6/06	6,300	< 3,000	44	1.2	370	19	< 0.90	5.9	< 0.90	< 0.90
	6/27/06	5,100	< 2,000	53	1.3	370	17	< 0.50	5.6	< 0.50	< 0.50
	8/24/06	6,500	< 2,000	80	1.8	510	18	< 0.90	9.9	< 0.90	< 0.90
	11/20/06	5,400	< 600	160	2.4	370	100	< 0.90	10	81	< 0.90
	2/5/07	6,300	< 1,500	69	3.2	480	31	< 0.80	10	< 0.80	< 0.80
MW-6	6/13/02	2,980	1,460*	31	2.3	3.8	12	--	--	310	--
	11/11/02	3,570	1,210*	336	5	< 5	< 15	--	--	95	--
	2/14/03	3,770	1,620*	429	12	7	10	--	--	122	--
	9/10/04	< 1,000	390	2.7	< 0.50	< 0.50	< 0.50	2.3	48	280	< 0.50
	12/7/04	1,800	< 600	32	1.7	< 0.50	1.1	2.2	49	160	< 0.50
	4/18/05	1,200	1,400	34	1.3	< 0.50	0.90	0.86	19	36	< 0.50
	6/20/05	590	1,300	3.3	< 0.50	< 0.50	< 0.50	< 0.50	5.5	8.5	< 0.50
	10/7/05	470	1,300	6.8	< 0.50	< 0.50	< 0.50	0.67	20	82	< 0.50
	12/7/05	420	910	10	< 0.50	< 0.50	< 0.50	< 0.50	7.3	22	< 0.50
	3/6/06	790	590	3.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.3	< 0.50
	6/27/06	2,600	980	100	4.0	0.96	2.2	1.0	49	78	< 0.50
	8/24/06	1,200	960	57	2.3	< 0.50	1.1	0.82	34	64	< 0.50
	11/20/06	1,300	< 200	58	1.7	< 0.50	1.3	< 0.50	18	26	< 0.50
	2/5/07	1,200	< 200	49	1.8	< 0.50	1.6	0.90	45	67	< 0.50
MW-7	6/13/02	24,100	1,570*	2,310	657	945	5,430	--	--	951	--
	11/11/02	4,760	2,160*	1,820	21	316	1,141	--	--	702	--
	2/14/03	4,320	2,380*	1,020	7	223	293	--	--	1,410	--
	9/10/04	4,800	< 300	640	16	250	490	< 1.5	31	590	< 1.5
	12/7/04	990	< 300	140	3.4	49	70	4.0	< 20	960	< 2.0
	4/18/05	1,400	< 300	260	1.3	96	16	< 1.0	20	370	< 1.0
	6/20/05	1,900	< 200	320	1.0	130	24	< 0.50	17	370	< 0.50
	10/7/05	2,600	<800	190	4.7	91	200	<0.73	8.0J	310	< 0.50
	12/7/05	Not sampled. Inaccessible									
	3/6/06	640	< 200	85	0.88	24	30	< 0.50	8.0	150	< 0.50
MW-8	6/27/06	1,200	< 200	180	1.7	64	64	< 0.50	14	150	< 0.50
	8/24/06	990	< 200	120	0.96	36	51	< 0.50	13	180	< 0.50
	11/20/06	1,600	< 200	200	1.6	59	160	< 0.50	5.2	180	< 0.50
	2/5/07	2,300	< 200	390	2.6	120	140	< 0.50	15	190	< 0.50
	6/13/02	20,000	7,760*	2,200	1,140	1,050	4,090	--	--	12,000	--
	11/11/02	5,010	2,010*	187	< 1	15	< 3	--	--	16,600	--
	2/14/03	1,980	< 50	607	6	113	40	--	--	11,500	--
MW-9	9/10/04	< 2,000	200	110	< 20	26	49	25	< 200	8,600	< 20
	12/7/04	2,000	280	420	< 10	40	61	31	100	6,800	< 10
	4/18/05	< 1,000	250	76	< 10	23	< 10	17	< 100	3,700	< 10
	6/20/05	1,300	300	190	< 7.0	21	40	19	< 40	3,400	< 7.0
	10/7/05	< 700	200	85	< 7.0	9.3	8.3	23	< 40	4,400	< 7.0
	12/7/05	1,400	300	250	8.7	41	90	18	< 40	4,400	< 7.0
	3/6/06	Not sampled. Inaccessible									
	6/27/06	710	250	100	< 5.0	7.8	26	16	30	3,100	< 5.0
	8/24/06	540	260	74	< 5.0	5.4	45	15	< 25	2,700	< 5.0
	11/20/06	2,100	< 100	380	4.4	18	170	10	530	1,900	< 4.0
	2/5/07	1,700	< 100	560	3.9	7.5	80	2.7	970	630	< 1.0

**TABLE TWO**  
 Summary of Analytical Results for GROUNDWATER Samples  
**Albany Hill Mini Mart**  
 800 San Pablo Avenue, Albany, CA  
 All results are in parts per billion (ppb)

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-9	6/27/02	19,000	--	1,430	1,750	501	5,410	--	--	< 0.5	--
	11/11/02	19,000	13,200*	3,390	4,540	1,020	9,050	--	--	549	--
	2/14/03	21,300	8,200*	1,700	2,200	701	4,970	--	--	< 1	--
	9/10/04	12,000	< 1,500	890	37	280	2,000	< 5.0	< 50	< 5.0	< 5.0
	12/7/04	13,000	< 1,500	950	580	480	2,900	< 5.0	< 50	< 5.0	< 5.0
	4/18/05	9,600	< 1,000	620	180	260	1,400	< 2.5	< 25	< 2.5	< 2.5
	6/20/05	9,800	< 1,500	760	260	430	1,400	< 2.0	< 9.0	< 2.0	< 2.0
	10/7/05	3,400	<1000	350	170	100	480	< 0.50	< 5.0	< 0.50	< 0.50
	12/7/05	5,600	< 1000	320	97	200	580	< 0.90	< 5.0	< 0.50	< 0.50
	3/6/06	4,200	< 800	460	120	97	600	< 0.90	< 5.0	< 0.90	< 0.50
	6/27/06	8,100	< 1,000	710	330	390	1,700	< 0.50	< 5.0	< 2.0	< 0.50
	8/24/06	6,100	< 800	550	220	280	1,200	< 2.0	< 9.0	< 2.0	< 2.0
	11/20/06	5,200	< 400	310	98	130	850	< 1.0	< 5.0	< 1.0	< 1.0
	2/5/07	<b>4,500</b>	<b>&lt; 400</b>	<b>370</b>	<b>120</b>	<b>190</b>	<b>720</b>	<b>&lt; 1.0</b>	<b>&lt; 5.0</b>	<b>&lt; 1.0</b>	<b>&lt; 1.0</b>
MW-10	10/7/05	470	330	17	<0.50	2	11	1.2	9.4J	210	<0.50
	12/7/05				Not sampled.		Inaccessible				
	3/6/06	130	130	4.2	< 0.50	< 0.50	< 0.50	4.9	13	820	0.55 (DIPE)
	6/27/06	< 400	140	4.4	< 0.50	< 0.50	< 0.50	8.9	21	1,300	0.60 (DIPE)
	8/24/06	< 400	140	< 4.0	< 4.0	< 4.0	< 4.0	7.0	< 20	1,400	< 4.0
	11/20/06	< 150	< 50	2.5	< 1.5	< 1.5	< 1.5	3.3	10	750	< 1.5
	2/5/07	170	< 50	3.0	< 0.90	< 0.90	< 0.90	2.4	6.5	440	< 0.90
ESL		500	640	46	130	290	13	NE	NE	1,800	Varies

**Notes:**

Data prior to August 2004 is based on a table compiled by AARS - ASE has not checked results against original laboratory reports.

\* Does not match diesel pattern

\*\* Confirmed by GC/MS method 8260

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

Most recent concentrations are in Bold.

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory detection limit.

NE indicates that no ESL has been established for this compound.



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## **APPENDIX A**

### **Well Sampling Field Logs**

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany Hill		
JOB NUMBER	3934	DATE OF SAMPLING	2-5-07
WELL ID.	MW-1	SAMPLER	MLR
TOTAL DEPTH OF WELL	24.2	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	9.20	11.68	
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	12.52		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.0		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	6.0		
EQUIPMENT USED TO PURGE WELL	Bailer		
TIME EVACUATION STARTED	1000	TIME EVACUATION COMPLETED	1010
TIME SAMPLES WERE COLLECTED	1020		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	6.0		
SAMPLING DEVICE	Bailer		
SAMPLE COLOR	clear	ODOR/SEDIMENT	slight off N.S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
2	63.1	7.55	1252
4	64.5	6.95	1108
6	63.5	6.93	990

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-1	4	VFA		HP

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany Hill		
JOB NUMBER	3934	DATE OF SAMPLING	2-5-07
WELL ID.	MW-2	SAMPLER	Mlk
TOTAL DEPTH OF WELL	24.8	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	10.53		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	14.27		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.2		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	6.6		
EQUIPMENT USED TO PURGE WELL	Bailier		
TIME EVACUATION STARTED	10:00	TIME EVACUATION COMPLETED	11:15
TIME SAMPLES WERE COLLECTED	11:20		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	6.7		
SAMPLING DEVICE	Bailier		
SAMPLE COLOR	clear	ODOR/SEDIMENT	N <sub>o</sub> O / N <sub>o</sub> S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
2	64.0	7.62	664
4	64.9	7.31	587
6	64.6	7.24	449

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-2	4	NOA		HD

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany Hill		
JOB NUMBER	3934	DATE OF SAMPLING	2-5-07
WELL ID.	Mw-3	SAMPLER	MLK
TOTAL DEPTH OF WELL	23.8	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	10.41		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	13.39		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.1		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	6.3		
EQUIPMENT USED TO PURGE WELL	Baller		
TIME EVACUATION STARTED	1200	TIME EVACUATION COMPLETED	1215
TIME SAMPLES WERE COLLECTED	1220		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	-
VOLUME OF GROUNDWATER PURGED	Balls 6.0		
SAMPLING DEVICE	Baller		
SAMPLE COLOR	clear	gray	ODOR/SEDIMENT slight d / Nod S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	pH	CONDUCTIVITY
2	65.4	7.06	941
4	66.6	6.86	1001
6	66.8	6.80	1046

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
Mw-3	4	VVA		HQ

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany hill		
JOB NUMBER	3934	DATE OF SAMPLING	2-5-07
WELL ID.	MW-4	SAMPLER	MLR
TOTAL DEPTH OF WELL	24.5	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	10.60		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	13.9		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.2		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	6.6		
EQUIPMENT USED TO PURGE WELL	Baller		
TIME EVACUATION STARTED	1300 1250	TIME EVACUATION COMPLETED	1305
TIME SAMPLES WERE COLLECTED	Batter 1310		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	-
VOLUME OF GROUNDWATER PURGED	6.8		
SAMPLING DEVICE	Baller		
SAMPLE COLOR	clear gray	ODOR/SEDIMENT	strong 0 / No S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
2	64.5	6.90	1585
4	64.4	6.80	1202
6	64.2	6.72	1044

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-4	4	VQA		HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany Hill		
JOB NUMBER	3934	DATE OF SAMPLING	2-5-07
WELL ID.	MW-SR	SAMPLER	MLR
TOTAL DEPTH OF WELL	19.58	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	10.21		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	9.37		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.4		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	4.4		
EQUIPMENT USED TO PURGE WELL	Bailer		
TIME EVACUATION STARTED	1405	TIME EVACUATION COMPLETED	1420
TIME SAMPLES WERE COLLECTED	1430		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	
VOLUME OF GROUNDWATER PURGED	4.5		
SAMPLING DEVICE	Bailer		
SAMPLE COLOR	clear gray	ODOR/SEDIMENT	strong 0 / No S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	63.9	7.06	557
2	63.4	7.02	487
3	63.7	6.98	630

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-SR	4	VFA		Hg

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany Hill		
JOB NUMBER	3934	DATE OF SAMPLING	2-5-07
WELL ID.	MW-6	SAMPLER	MLR
TOTAL DEPTH OF WELL	24.7	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	9.20		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	15.5		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.48		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	7.4		
EQUIPMENT USED TO PURGE WELL	Bailev		
TIME EVACUATION STARTED	900	TIME EVACUATION COMPLETED	940
TIME SAMPLES WERE COLLECTED	950		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	8.0		
SAMPLING DEVICE	Bailev		
SAMPLE COLOR	Clear	ODOR/SEDIMENT	No O / brn 5cl

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
2	66.3	7.21	1682
4	66.9	6.95	1357
6	66.8	6.92	1240

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-6	4	VOH		HQ

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany Hill		
JOB NUMBER	3934	DATE OF SAMPLING	2-5-07
WELL ID.	MW-7	SAMPLER	MLR
TOTAL DEPTH OF WELL	24.7	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	11.34		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	13.36		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.1		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	6.3		
EQUIPMENT USED TO PURGE WELL	Bailer		
TIME EVACUATION STARTED	1130	TIME EVACUATION COMPLETED	1145
TIME SAMPLES WERE COLLECTED	1150		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	6.5		
SAMPLING DEVICE	Bailer		
SAMPLE COLOR	clear gray	ODOR/SEDIMENT	Strong / No S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
2	62.9	7.05	1176
4	63.5	7.01	1181
6	63.8	6.99	1165

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-7	4	VFA		HQ

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany Hill		
JOB NUMBER	3934	DATE OF SAMPLING	2-5 & 7
WELL ID.	MW-8	SAMPLER	MLR
TOTAL DEPTH OF WELL	19.1	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	10.97		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	8.13		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.3		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	3.9		
EQUIPMENT USED TO PURGE WELL	Bailey		
TIME EVACUATION STARTED	1335	TIME EVACUATION COMPLETED	1350
TIME SAMPLES WERE COLLECTED	1400		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	-
VOLUME OF GROUNDWATER PURGED	4.0		
SAMPLING DEVICE	Bailey		
SAMPLE COLOR	clear	ODOR/SEDIMENT	strangy of No 5

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	62.5	7.29	1131
2	62.9	7.14	1197
3	63.4	7.10	1286

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-8	4	100A		4FL

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany	H.11	
JOB NUMBER	3934	DATE OF SAMPLING	2 - 5 - 07
WELL ID.	MW-9	SAMPLER	MLR
TOTAL DEPTH OF WELL	16.8	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	11.95		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	4.85		
NUMBER OF GALLONS PER WELL CASING VOLUME	776		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	2.3		
EQUIPMENT USED TO PURGE WELL	Bailev		
TIME EVACUATION STARTED	1315	TIME EVACUATION COMPLETED	1325
TIME SAMPLES WERE COLLECTED	1330		
DID WELL GO DRY	Yes	AFTER HOW MANY GALLONS	2
VOLUME OF GROUNDWATER PURGED			
SAMPLING DEVICE	Bailev		
SAMPLE COLOR	clear	blk	odor/sediment strong of blk sed

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	63.5	7.52	898
2	63.7	7.32	829
- dry			

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-9	4	VIA		HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Albany Hill		
JOB NUMBER	MW-10 3934	DATE OF SAMPLING	2-5-07
WELL ID.	MW-10	SAMPLER	M L R
TOTAL DEPTH OF WELL	24.7	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	9.83		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	14.87		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.3		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	6.9		
EQUIPMENT USED TO PURGE WELL	Bailer		
TIME EVACUATION STARTED	1030	TIME EVACUATION COMPLETED	1040
TIME SAMPLES WERE COLLECTED	1050		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	
VOLUME OF GROUNDWATER PURGED	7.0		
SAMPLING DEVICE	Bailer		
SAMPLE COLOR	Clear	ODOR/SEDIMENT	No 0 / No 5

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
2	64.7	7.26	1377
4	65.1	7.02	1261
6	65.4	6.95	1348

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-10	4	VCA		HCP



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526  
(925) 820-9391 - Fax (925) 837-4853 - [www.aquascienceengineers.com](http://www.aquascienceengineers.com)

## **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation



Report Number : 54744

Date : 2/14/2007

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

Subject : 10 Water Samples  
Project Name : Albany Hill Gas  
Project Number : 3934

Dear Mr. Rauser,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 54744

Date : 2/14/2007

Subject : 10 Water Samples  
Project Name : Albany Hill Gas  
Project Number : 3934

## Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-4, MW-5R, MW-6, MW-7, MW-8 and MW-9.

Tert-Butanol results for samples MW-3 and MW-10 may be biased slightly high and are flagged with a 'J'. A fraction of MtBE (typically less than 1%) converts to Tert-Butanol during the analysis of water samples. We consider this conversion effect to be mathematically significant in samples that contain MtBE/Tert-Butanol in ratios of over 20:1.

Approved By:

Joe Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-1

Matrix : Water

Lab Number : 54744-01

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	180	0.50	ug/L	EPA 8260B	2/13/2007
Toluene	1.0	0.50	ug/L	EPA 8260B	2/13/2007
Ethylbenzene	23	0.50	ug/L	EPA 8260B	2/13/2007
Total Xylenes	3.4	0.50	ug/L	EPA 8260B	2/13/2007
Methyl-t-butyl ether (MTBE)	180	0.50	ug/L	EPA 8260B	2/13/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/13/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/13/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/13/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/13/2007
TPH as Gasoline	570	50	ug/L	EPA 8260B	2/13/2007
Toluene - d8 (Surr)	98.5		% Recovery	EPA 8260B	2/13/2007
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/13/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	2/14/2007
Octacosane (Diesel Silica Gel Surr)	90.0		% Recovery	M EPA 8015	2/14/2007

Approved By: Joel Kiff



Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-2

Matrix : Water

Lab Number : 54744-02

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	28	0.50	ug/L	EPA 8260B	2/9/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Methyl-t-butyl ether (MTBE)	500	0.90	ug/L	EPA 8260B	2/10/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Tert-amyl methyl ether (TAME)	0.61	0.50	ug/L	EPA 8260B	2/9/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/9/2007
TPH as Gasoline	98	50	ug/L	EPA 8260B	2/9/2007
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	2/9/2007
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/9/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	122		% Recovery	M EPA 8015	2/12/2007

Approved By: Joel Kiff

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Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-3

Matrix : Water

Lab Number : 54744-03

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	110	4.0	ug/L	EPA 8260B	2/10/2007
Toluene	4.2	4.0	ug/L	EPA 8260B	2/10/2007
Ethylbenzene	< 4.0	4.0	ug/L	EPA 8260B	2/10/2007
Total Xylenes	16	4.0	ug/L	EPA 8260B	2/10/2007
Methyl-t-butyl ether (MTBE)	1600	4.0	ug/L	EPA 8260B	2/10/2007
Diisopropyl ether (DIPE)	< 4.0	4.0	ug/L	EPA 8260B	2/10/2007
Ethyl-t-butyl ether (ETBE)	< 4.0	4.0	ug/L	EPA 8260B	2/10/2007
Tert-amyl methyl ether (TAME)	7.3	4.0	ug/L	EPA 8260B	2/10/2007
Tert-Butanol	39 J	20	ug/L	EPA 8260B	2/10/2007
TPH as Gasoline	440	400	ug/L	EPA 8260B	2/10/2007
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	2/10/2007
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/10/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	2/13/2007
Octacosane (Diesel Silica Gel Surr)	118		% Recovery	M EPA 8015	2/13/2007

Approved By:   
Joel Kiff

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Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-4

Matrix : Water

Lab Number : 54744-04

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	970	1.5	ug/L	EPA 8260B	2/10/2007
Toluene	4.4	1.5	ug/L	EPA 8260B	2/10/2007
Ethylbenzene	53	1.5	ug/L	EPA 8260B	2/10/2007
Total Xylenes	62	1.5	ug/L	EPA 8260B	2/10/2007
Methyl-t-butyl ether (MTBE)	45	1.5	ug/L	EPA 8260B	2/10/2007
Diisopropyl ether (DIPE)	< 1.5	1.5	ug/L	EPA 8260B	2/10/2007
Ethyl-t-butyl ether (ETBE)	< 1.5	1.5	ug/L	EPA 8260B	2/10/2007
Tert-amyl methyl ether (TAME)	< 1.5	1.5	ug/L	EPA 8260B	2/10/2007
Tert-Butanol	12	7.0	ug/L	EPA 8260B	2/10/2007
TPH as Gasoline	2700	150	ug/L	EPA 8260B	2/10/2007
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	2/10/2007
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	2/10/2007
TPH as Diesel (Silica Gel)	< 80	80	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	95.9		% Recovery	M EPA 8015	2/12/2007

Approved By:  Joel Kiff



Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-5R

Matrix : Water

Lab Number : 54744-05

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	69	0.80	ug/L	EPA 8260B	2/9/2007
Toluene	3.2	0.80	ug/L	EPA 8260B	2/9/2007
Ethylbenzene	480	0.80	ug/L	EPA 8260B	2/9/2007
Total Xylenes	31	0.80	ug/L	EPA 8260B	2/9/2007
Methyl-t-butyl ether (MTBE)	< 0.80	0.80	ug/L	EPA 8260B	2/9/2007
Diisopropyl ether (DIPE)	< 0.80	0.80	ug/L	EPA 8260B	2/9/2007
Ethyl-t-butyl ether (ETBE)	< 0.80	0.80	ug/L	EPA 8260B	2/9/2007
Tert-amyl methyl ether (TAME)	< 0.80	0.80	ug/L	EPA 8260B	2/9/2007
Tert-Butanol	10	5.0	ug/L	EPA 8260B	2/9/2007
TPH as Gasoline	6300	80	ug/L	EPA 8260B	2/9/2007
Toluene - d8 (Surr)	96.7		% Recovery	EPA 8260B	2/9/2007
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	2/9/2007
TPH as Diesel (Silica Gel)	< 1500	1500	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	113		% Recovery	M EPA 8015	2/12/2007

Approved By: Joel Kiff



Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-6

Matrix : Water

Lab Number : 54744-06

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	49	0.50	ug/L	EPA 8260B	2/9/2007
Toluene	1.8	0.50	ug/L	EPA 8260B	2/9/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Total Xylenes	1.6	0.50	ug/L	EPA 8260B	2/9/2007
Methyl-t-butyl ether (MTBE)	67	0.50	ug/L	EPA 8260B	2/9/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Tert-amyl methyl ether (TAME)	0.90	0.50	ug/L	EPA 8260B	2/9/2007
Tert-Butanol	45	5.0	ug/L	EPA 8260B	2/9/2007
TPH as Gasoline	1200	50	ug/L	EPA 8260B	2/9/2007
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	2/9/2007
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/9/2007
TPH as Diesel (Silica Gel)	< 200	200	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	108		% Recovery	M EPA 8015	2/12/2007

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Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-7

Matrix : Water

Lab Number : 54744-07

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	390	0.50	ug/L	EPA 8260B	2/10/2007
Toluene	2.6	0.50	ug/L	EPA 8260B	2/10/2007
Ethylbenzene	120	0.50	ug/L	EPA 8260B	2/10/2007
Total Xylenes	140	0.50	ug/L	EPA 8260B	2/10/2007
Methyl-t-butyl ether (MTBE)	190	0.50	ug/L	EPA 8260B	2/10/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Tert-Butanol	15	5.0	ug/L	EPA 8260B	2/10/2007
TPH as Gasoline	2300	50	ug/L	EPA 8260B	2/10/2007
Toluene - d8 (Surr)	98.1		% Recovery	EPA 8260B	2/10/2007
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/10/2007
TPH as Diesel (Silica Gel)	< 200	200	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	114		% Recovery	M EPA 8015	2/12/2007

Approved By: Joel Kiff



Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-8

Matrix : Water

Lab Number : 54744-08

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	560	1.0	ug/L	EPA 8260B	2/10/2007
Toluene	3.9	1.0	ug/L	EPA 8260B	2/10/2007
Ethylbenzene	7.5	1.0	ug/L	EPA 8260B	2/10/2007
Total Xylenes	80	1.0	ug/L	EPA 8260B	2/10/2007
Methyl-t-butyl ether (MTBE)	630	1.0	ug/L	EPA 8260B	2/10/2007
Diisopropyl ether (DIPE)	< 1.0	1.0	ug/L	EPA 8260B	2/10/2007
Ethyl-t-butyl ether (ETBE)	< 1.0	1.0	ug/L	EPA 8260B	2/10/2007
Tert-amyl methyl ether (TAME)	2.7	1.0	ug/L	EPA 8260B	2/10/2007
Tert-Butanol	970	5.0	ug/L	EPA 8260B	2/10/2007
TPH as Gasoline	1700	100	ug/L	EPA 8260B	2/10/2007
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	2/10/2007
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	2/10/2007
TPH as Diesel (Silica Gel)	< 100	100	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	114		% Recovery	M EPA 8015	2/12/2007

Approved By:   
Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-9

Matrix : Water

Lab Number : 54744-09

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	370	1.0	ug/L	EPA 8260B	2/10/2007
Toluene	120	1.0	ug/L	EPA 8260B	2/10/2007
Ethylbenzene	190	1.0	ug/L	EPA 8260B	2/10/2007
Total Xylenes	720	1.0	ug/L	EPA 8260B	2/10/2007
Methyl-t-butyl ether (MTBE)	< 1.0	1.0	ug/L	EPA 8260B	2/9/2007
Diisopropyl ether (DIPE)	< 1.0	1.0	ug/L	EPA 8260B	2/10/2007
Ethyl-t-butyl ether (ETBE)	< 1.0	1.0	ug/L	EPA 8260B	2/10/2007
Tert-amyl methyl ether (TAME)	< 1.0	1.0	ug/L	EPA 8260B	2/10/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/10/2007
TPH as Gasoline	4500	100	ug/L	EPA 8260B	2/10/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	2/10/2007
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	2/10/2007
TPH as Diesel (Silica Gel)	< 400	400	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	118		% Recovery	M EPA 8015	2/12/2007

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 54744

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Sample : MW-10

Matrix : Water

Lab Number : 54744-10

Sample Date : 2/5/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	3.0	0.90	ug/L	EPA 8260B	2/10/2007
Toluene	< 0.90	0.90	ug/L	EPA 8260B	2/10/2007
Ethylbenzene	< 0.90	0.90	ug/L	EPA 8260B	2/10/2007
Total Xylenes	< 0.90	0.90	ug/L	EPA 8260B	2/10/2007
Methyl-t-butyl ether (MTBE)	440	0.90	ug/L	EPA 8260B	2/10/2007
Diisopropyl ether (DIPE)	< 0.90	0.90	ug/L	EPA 8260B	2/10/2007
Ethyl-t-butyl ether (ETBE)	< 0.90	0.90	ug/L	EPA 8260B	2/10/2007
Tert-amyl methyl ether (TAME)	2.4	0.90	ug/L	EPA 8260B	2/10/2007
Tert-Butanol	6.5 J	5.0	ug/L	EPA 8260B	2/10/2007
TPH as Gasoline	170	90	ug/L	EPA 8260B	2/10/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	2/10/2007
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	2/10/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	114		% Recovery	M EPA 8015	2/12/2007

Approved By: Joel Kiff

Report Number : 54744

Date : 2/14/2007

**QC Report : Method Blank Data****Project Name : Albany Hill Gas****Project Number : 3934**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	2/12/2007
Octacosane (Diesel Silica Gel Surr)	93.7		%	M EPA 8015	2/12/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	2/13/2007
Octacosane (Diesel Silica Gel Surr)	100		%	M EPA 8015	2/13/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/9/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/9/2007
Toluene - d8 (Surr)	98.2		%	EPA 8260B	2/9/2007
4-Bromofluorobenzene (Surr)	99.6		%	EPA 8260B	2/9/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/10/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/10/2007
Toluene - d8 (Surr)	100		%	EPA 8260B	2/10/2007
4-Bromofluorobenzene (Surr)	99.0		%	EPA 8260B	2/10/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/10/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/10/2007
Toluene - d8 (Surr)	101		%	EPA 8260B	2/10/2007
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	2/10/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/9/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/9/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/9/2007
Toluene - d8 (Surr)	98.8		%	EPA 8260B	2/9/2007
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	2/9/2007

Approved By:  Joel Kiff

Report Number : 54744

Date : 2/14/2007

QC Report : Method Blank Data

Project Name : Albany Hill Gas

Project Number : 3934

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/10/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/12/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/12/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/12/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/12/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/12/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/12/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/12/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/12/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/12/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/12/2007
Toluene - d8 (Surrogate)	97.7	%		EPA 8260B	2/12/2007
4-Bromofluorobenzene (Surrogate)	102	%		EPA 8260B	2/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : Albany Hill Gas

Project Number : 3934

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	904	895	ug/L	M EPA 8015	2/12/07	90.4	89.5	0.943	70-130	25
Benzene	54724-06	<0.50	40.0	40.0	38.8	38.0	ug/L	EPA 8260B	2/9/07	96.9	95.0	1.98	70-130	25
Toluene	54724-06	<0.50	40.0	40.0	37.6	36.6	ug/L	EPA 8260B	2/9/07	93.9	91.6	2.43	70-130	25
Tert-Butanol	54724-06	<5.0	200	200	180	179	ug/L	EPA 8260B	2/9/07	89.9	89.3	0.642	70-130	25
Methyl-t-Butyl Ether	54724-06	<0.50	40.0	40.0	37.0	37.4	ug/L	EPA 8260B	2/9/07	92.5	93.6	1.19	70-130	25
Benzene	54770-08	1.4	39.9	39.7	39.7	39.1	ug/L	EPA 8260B	2/10/07	95.8	94.9	0.993	70-130	25
Toluene	54770-08	2.1	39.9	39.7	39.2	38.2	ug/L	EPA 8260B	2/10/07	92.9	91.1	1.92	70-130	25
Tert-Butanol	54770-08	7.3	200	198	182	181	ug/L	EPA 8260B	2/10/07	87.5	87.7	0.284	70-130	25
Methyl-t-Butyl Ether	54770-08	17	39.9	39.7	54.4	52.0	ug/L	EPA 8260B	2/10/07	93.2	87.8	5.99	70-130	25
Benzene	54769-05	<0.50	40.0	40.0	40.4	39.4	ug/L	EPA 8260B	2/10/07	101	98.6	2.38	70-130	25
Toluene	54769-05	<0.50	40.0	40.0	40.8	39.8	ug/L	EPA 8260B	2/10/07	102	99.6	2.45	70-130	25
Tert-Butanol	54769-05	<5.0	200	200	201	192	ug/L	EPA 8260B	2/10/07	100	96.1	4.28	70-130	25
Methyl-t-Butyl Ether	54769-05	<0.50	40.0	40.0	47.5	47.1	ug/L	EPA 8260B	2/10/07	119	118	0.898	70-130	25
Benzene	54765-02	<0.50	40.0	40.0	39.2	38.6	ug/L	EPA 8260B	2/9/07	98.0	96.5	1.47	70-130	25
Toluene	54765-02	<0.50	40.0	40.0	39.3	38.5	ug/L	EPA 8260B	2/9/07	98.3	96.2	2.23	70-130	25
Tert-Butanol	54765-02	<5.0	200	200	185	189	ug/L	EPA 8260B	2/9/07	92.6	94.4	1.88	70-130	25
Methyl-t-Butyl Ether	54765-02	3.9	40.0	40.0	42.5	42.4	ug/L	EPA 8260B	2/9/07	96.5	96.2	0.335	70-130	25

Approved By: Joel Kiff



KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54744

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 2/14/2007

Project Name : Albany Hill Gas

Project Number : 3934

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	54769-03	<0.50	40.0	40.0	39.9	39.4	ug/L	EPA 8260B	2/10/07	99.7	98.5	1.21	70-130	25
Toluene	54769-03	<0.50	40.0	40.0	39.5	38.9	ug/L	EPA 8260B	2/10/07	98.8	97.3	1.52	70-130	25
Tert-Butanol	54769-03	10	200	200	196	198	ug/L	EPA 8260B	2/10/07	93.2	94.0	0.864	70-130	25
Methyl-t-Butyl Ether	54769-03	<0.50	40.0	40.0	39.4	39.4	ug/L	EPA 8260B	2/10/07	98.4	98.4	0.0421	70-130	25
Benzene	54794-09	<0.50	40.0	40.0	40.3	38.4	ug/L	EPA 8260B	2/12/07	101	95.9	4.96	70-130	25
Toluene	54794-09	<0.50	40.0	40.0	39.7	38.0	ug/L	EPA 8260B	2/12/07	99.2	94.9	4.46	70-130	25
Tert-Butanol	54794-09	<5.0	200	200	188	188	ug/L	EPA 8260B	2/12/07	93.9	94.2	0.369	70-130	25
Methyl-t-Butyl Ether	54794-09	0.54	40.0	40.0	40.0	39.3	ug/L	EPA 8260B	2/12/07	98.6	96.9	1.73	70-130	25
TPH as Diesel	Blank	<50	1000	1000	978	1020	ug/L	M EPA 8015	2/13/07	97.8	102	4.47	70-130	25

Approved By:   
Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

## QC Report : Laboratory Control Sample (LCS)

Project Name : Albany Hill Gas

Project Number : 3934

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	2/9/07	95.9	70-130
Toluene	40.0	ug/L	EPA 8260B	2/9/07	93.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/9/07	86.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/9/07	96.6	70-130
Benzene	40.0	ug/L	EPA 8260B	2/10/07	97.8	70-130
Toluene	40.0	ug/L	EPA 8260B	2/10/07	94.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/10/07	87.3	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/10/07	99.7	70-130
Benzene	40.0	ug/L	EPA 8260B	2/10/07	98.7	70-130
Toluene	40.0	ug/L	EPA 8260B	2/10/07	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/10/07	97.3	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/10/07	118	70-130
Benzene	40.0	ug/L	EPA 8260B	2/9/07	96.1	70-130
Toluene	40.0	ug/L	EPA 8260B	2/9/07	97.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/9/07	91.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/9/07	93.6	70-130
Benzene	40.0	ug/L	EPA 8260B	2/10/07	95.8	70-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By:

Joe Kiff



Report Number : 54744

Date : 2/14/2007

QC Report : Laboratory Control Sample (LCS)

Project Name : Albany Hill Gas

Project Number : 3934

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	2/10/07	97.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/10/07	91.2	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/10/07	95.1	70-130
Benzene	40.0	ug/L	EPA 8260B	2/12/07	98.4	70-130
Toluene	40.0	ug/L	EPA 8260B	2/12/07	99.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/12/07	94.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/12/07	99.8	70-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By:

Joe Kiff



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

54744

# Chain of Custody

SAMPLER (SIGNATURE)

M.R.

PAGE 1 OF 1

PROJECT NAME Albany Hill Gas  
ADDRESS 800 San Pablo, Albany, Cal JOB NO. 3934

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5050/8015-8020)	TPH-DIESEL & Silica (EPA 3510/8015) CleanUp	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LEAD 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 (5) (EPA 8260) BTEX (TPH)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PURGEABLE HALOCARBONS (EPA 601/8010)	MULTI-RANGE HYDROCARBONS	SILICA-GEI CLEANUP	EDF
MW - 1	2-5-07	1020	W	4		X												X		
MW - 2		1120																0		
MW - 3		1220																0		
MW - 4		1310																0		
MW - 5 R		1430																0		
MW - 6		950																0		
MW - 7		1150																0		
MW - 8		1400																0		
MW - 9		1330 DS																0		
MW - 10		1050																0		

RELINQUISHED BY: <i>M.R.</i> 1600 (signature) (time)	RECEIVED BY: <i>Shawn Ahern</i> 1330 (signature) (time)	RELINQUISHED BY: <i>M. Rauser</i> 2-5-07 (printed name) (date)	RECEIVED BY LABORATORY: <i>Thomas Ahern</i> 050807 (signature) (time)	COMMENTS: HCl = VOA
SAMPLE RECEIPT Temp °C <u>22</u> Therm. ID# <u>FRS</u>		Initial <u>TA</u> Date <u>050807</u> (date)		TURN AROUND TIME STANDARD 24hr 48hr 72hr OTHER:
Company-ASE, INC.	Company-	Time <u>1600</u> Coolant present <u>Yes</u> No	Company <u>Kiff Analytical NC</u>	

Aqua Science Engineers, Inc.  
208 W. El Pintado Road.  
Danville, CA 94526  
(925) 820-9391  
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54744

# Chain of Custody

SAMPLER (SIGNATURE)

M. R.

PAGE 1 OF 1

PROJECT NAME Albany Hill Gas  
ADDRESS 800 San Pablo, Albany, Ca  
JOB NO. 3934

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015) cleanup	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LEAD 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 (5) (EPA 8260) BTEX & PM-6	Pb (TOTAL or DISSOLVED) (EPA 6010)	PURGEABLE HALOCARBONS (EPA 6011/8010)	MULTI-RANGE HYDROCARBONS	SILICA-GEI CLEANUP (EDF)
MW - 1	2-5-07	1020	W	4		X													
MW - 2		1120																	
MW - 3		1220																	
MW - 4		1310																	
MW - 5 R		1430																	
MW - 6		950																	
MW - 7		1150																	
MW - 8		1400																	
MW - 9		1330 DS																	
MW - 10		1050																	

RELINQUISHED BY:

M. R.

(signature) (time)

1600

RECEIVED BY:

(signature) (time)

RELINQUISHED BY:

(signature) (time)

RECEIVED BY LABORATORY:

Thomas Allen

(signature) (time)

COMMENTS:

HCl = VOA

M. Rauser

2-5-07

(printed name) (date)

(printed name)

SAMPLE RECEIPT

Temp °C 21.0 Therm. ID# FR-5

Initial (date) 1/17 Printed Name Thomas Allen Date 02/08/07

Company-ASE, INC.

Company-

Time 1600 Coolant present Yes No

Thomas Allen

(printed name) (date)

Kift Analytical MC

TURN AROUND TIME

STANDARD 24hr 48hr 72hr

OTHER: