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Aqua Science Engineers, Inc. 208 West El Pintado, Suite C, Danville, CA 94526  
(925) 820-9391 - Fax (925) 837-4853 - [www.aquascienceengineers.com](http://www.aquascienceengineers.com)

September 15, 2006

QUARTERLY GROUNDWATER MONITORING REPORT  
AUGUST 2006 GROUNDWATER SAMPLING  
ASE JOB NO. 3934

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

Prepared by:  
AQUA SCIENCE ENGINEERS, INC.  
208 W. El Pintado  
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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)  
208 W. El Pintado, Suite C  
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 August 2006 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 August 24, 2006, 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 and gradient beneath the site is very inconsistent this quarter with flow direction components to the west, east and south.

## **3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS**

On August 24, 2006, 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, ethyl benzene and MTBE detected in groundwater samples collected from monitoring well MW-1 increased slightly this quarter, while total xylenes concentrations decreased in the same sample.
- Concentrations of TPH-G, TPH-D, benzene, ethyl benzene, and MTBE detected in groundwater samples collected from monitoring well MW-2 decreased slightly this quarter.



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- Concentrations of TPH-G, BTEX, and TBA detected in groundwater samples collected from monitoring well MW-3 decreased significantly this quarter, while MTBE concentrations increased significantly in the same sample.
- Concentrations of TPH-G and benzene detected in groundwater samples collected from monitoring well MW-4 increased this quarter, while MTBE decreased slightly in the sample.
- Concentrations of TPH-G and BTEX detected in groundwater samples collected from monitoring well MW-5R increased this quarter.
- Concentrations of TPH-G, BTEX, TBA, and MTBE detected in groundwater samples collected from monitoring well MW-6 decreased this quarter.
- Concentrations of TPH-G and BTEX detected in groundwater samples collected from monitoring well MW-7 decreased slightly this quarter, while MTBE increased slightly in the sample.
- Concentrations of TPH-G, benzene, ethyl benzene, and MTBE detected in groundwater samples collected from monitoring well MW-8 decreased this quarter.
- Concentrations of TPH-G and BTEX detected in groundwater samples collected from monitoring well MW-9 decreased this quarter.
- Concentrations of MTBE detected in groundwater samples collected from monitoring well MW-10 increased this quarter, while all other results remained similar to the previous quarter.

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

- In MW-1, the TPH-G, benzene and total xylenes concentrations exceeded the ESLs.
- In MW-3, the total xylenes and MTBE 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, TPH-D, and benzene concentrations exceeded the ESL.
- In MW-7, the TPH-G, benzene, and total xylenes concentrations exceeded ESLs.
- In MW-8, the TPH-G, benzene, total xylenes, and MTBE concentrations exceeded ESLs.
- In MW-9, the TPH-G, benzene, toluene, and total xylenes concentrations exceeded ESLs.

## 5.0 RECOMMENDATIONS

ASE recommends continued groundwater monitoring on a quarterly basis. The next groundwater sampling is scheduled for December 2006.

## 6.0 REPORT LIMITATIONS

The results presented in this report represent the conditions at the time of the groundwater

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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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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.

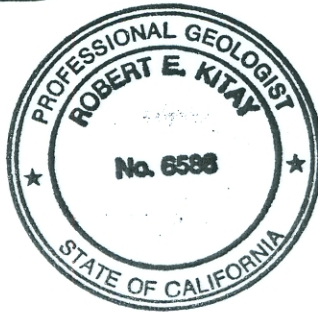
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

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

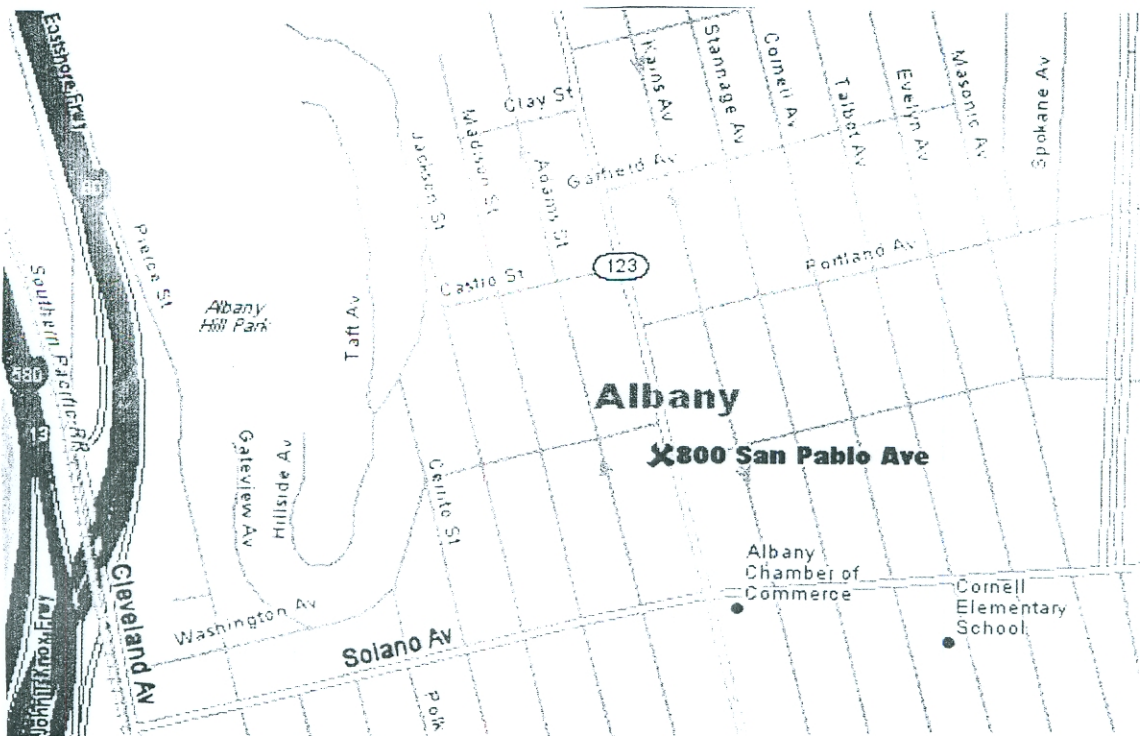


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## **FIGURES**



NORTH



### LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVE  
ALBANY, CALIFORNIA

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FIGURE 1



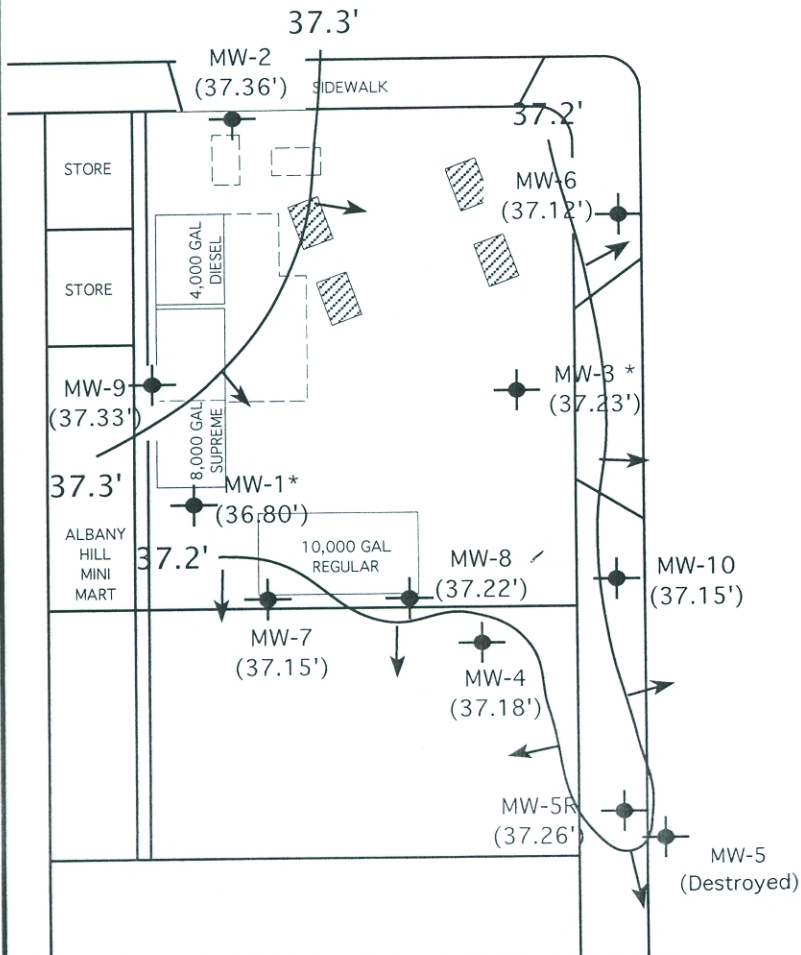


NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SAN PABLO AVENUE



### LEGEND

\* WELL NOT USED FOR CONTOUR MAP

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

GROUNDWATER ELEVATION CONTOUR LINE  
WITH FLOW DIRECTION

APPROXIMATE FORMER UST LOCATION  
AND AREA OF EXCAVATION

POTENTIOMETRIC  
SURFACE CONTOUR MAP  
JUNE 27, 2006

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

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Figure 2



Aqua Science Engineers, Inc. 208 West El Pintado, Suite C, 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	46.42	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
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

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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
MW-4	6/13/02	100.05	10.18	89.87
	9/11/02		11.12	88.93
	2/14/03		9.51	35.69
	9/10/04	45.20	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
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
	<b>8/24/06</b>		<b>10.10</b>	<b>37.26</b>
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
	<b>8/24/06</b>		<b>9.15</b>	<b>37.12</b>
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
	<b>8/24/06</b>		<b>11.21</b>	<b>37.15</b>
MW-8	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
	<b>8/24/06</b>		<b>10.77</b>	<b>37.22</b>



**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-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
	<b>8/24/06</b>		<b>11.91</b>	<b>37.33</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
	<b>8/24/06</b>		<b>9.75</b>	<b>37.15</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 < 0.50
	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
MW-2	8/6/99	ND	340	ND	ND	ND	ND	--	--	ND	--
	11/5/99	ND	420	ND	ND	ND	0.7	--	--	ND	--
	2/7/00	ND	310	ND	ND	ND	0.6	--	--	ND	--
	5/7/00	ND	280	ND	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	< 0.50	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
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

**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-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)
	<b>8/24/06</b>	<b>2,500</b>	<b>&lt; 300</b>	<b>830</b>	<b>6.5</b>	<b>120</b>	<b>120</b>	<b>&lt; 0.90</b>	<b>18</b>	<b>95</b>	<b>&lt; 0.90</b>
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
	<b>8/24/06</b>	<b>6,500</b>	<b>&lt; 2,000</b>	<b>80</b>	<b>1.8</b>	<b>510</b>	<b>18</b>	<b>&lt; 0.90</b>	<b>9.9</b>	<b>&lt; 0.90</b>	<b>&lt; 0.90</b>
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
	<b>8/24/06</b>	<b>1,200</b>	<b>960</b>	<b>57</b>	<b>2.3</b>	<b>&lt; 0.50</b>	<b>1.1</b>	<b>0.82</b>	<b>34</b>	<b>64</b>	<b>&lt; 0.50</b>
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
	6/27/06	1,200	< 200	180	1.7	64	64	< 0.50	14	150	< 0.50
	<b>8/24/06</b>	<b>990</b>	<b>&lt; 200</b>	<b>120</b>	<b>0.96</b>	<b>36</b>	<b>51</b>	<b>&lt; 0.50</b>	<b>13</b>	<b>180</b>	<b>&lt; 0.50</b>
MW-8	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	--
	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	< 1000	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
	<b>8/24/06</b>	<b>540</b>	<b>260</b>	<b>74</b>	<b>&lt; 5.0</b>	<b>5.4</b>	<b>45</b>	<b>15</b>	<b>&lt; 25</b>	<b>2,700</b>	<b>&lt; 5.0</b>

**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
	<b>8/24/06</b>	<b>6,100</b>	<b>&lt; 800</b>	<b>550</b>	<b>220</b>	<b>280</b>	<b>1,200</b>	<b>&lt; 2.0</b>	<b>&lt; 9.0</b>	<b>&lt; 2.0</b>	<b>&lt; 2.0</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)
	<b>8/24/06</b>	<b>&lt; 400</b>	<b>140</b>	<b>&lt; 4.0</b>	<b>&lt; 4.0</b>	<b>&lt; 4.0</b>	<b>&lt; 4.0</b>	<b>7.0</b>	<b>&lt; 20</b>	<b>1,400</b>	<b>&lt; 4.0</b>
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 H. 1  
 JOB NUMBER 3934 DATE OF SAMPLING 8-24-06  
 WELL ID. MLW-1 SAMPLER MLR  
 TOTAL DEPTH OF WELL 24.2 WELL DIAMETER 2  
 DEPTH TO WATER PRIOR TO PURGING 12.02  
 PRODUCT THICKNESS 0  
 DEPTH OF WELL CASING IN WATER 12.18  
 NUMBER OF GALLONS PER WELL CASING VOLUME 1.9  
 NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3  
 REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 5.8  
 EQUIPMENT USED TO PURGE WELL Bailer  
 TIME EVACUATION STARTED 1215 TIME EVACUATION COMPLETED 1235  
 TIME SAMPLES WERE COLLECTED 1240  
 DID WELL GO DRY NO AFTER HOW MANY GALLONS —  
 VOLUME OF GROUNDWATER PURGED 6.0  
 SAMPLING DEVICE Bailer  
 SAMPLE COLOR clear ODOR / SEDIMENT strong HC O / No S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
<u>1</u>	<u>65.6</u>	<u>7.12</u>	<u>1131</u>
<u>2</u>	<u>65.0</u>	<u>7.10</u>	<u>1194</u>
<u>3</u>	<u>64.9</u>	<u>7.08</u>	<u>1218</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVE
<u>MLW-1</u>	<u>5</u>	<u>VOA</u>		<u>HLR</u>

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Albany Hill

JOB NUMBER 3934 DATE OF SAMPLING 8-24-06

WELL ID. MW-2 SAMPLER MLR

TOTAL DEPTH OF WELL 24.8 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 10.35

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 14.45

NUMBER OF GALLONS PER WELL CASING VOLUME 2.4

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 7.2

EQUIPMENT USED TO PURGE WELL Bailer

TIME EVACUATION STARTED 9:55 TIME EVACUATION COMPLETED 1010

TIME SAMPLES WERE COLLECTED 1015

DID WELL GO DRY No AFTER HOW MANY GALLONS —

VOLUME OF GROUNDWATER PURGED 8.0

SAMPLING DEVICE Bailer

SAMPLE COLOR clear ODOR/SEDIMENT slight H<sub>2</sub>S odor / no S-

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	68.6	7.19	523
2	67.1	7.08	520
3	66.8	7.06	522

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVE
MW-2	5	VOA		H <sub>2</sub> S

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Albany Hill

JOB NUMBER 3934 DATE OF SAMPLING 8-29-06

WELL ID. MW-3 SAMPLER MLR

TOTAL DEPTH OF WELL 238 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 10.26

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 13.54

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 6.7

EQUIPMENT USED TO PURGE WELL Bailer

TIME EVACUATION STARTED 1155 TIME EVACUATION COMPLETED 41205

TIME SAMPLES WERE COLLECTED 1210

DID WELL GO DRY NO AFTER HOW MANY GALLONS -

VOLUME OF GROUNDWATER PURGED Bailer 7.0

SAMPLING DEVICE Bailer

SAMPLE COLOR clear ODOR/SEDIMENT slight 0 / No 5

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	69.1	7.36	675
2	68.1	6.88	759
3	67.9	6.84	746

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVE
MW-3	5	VDA		1162



# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Albany H:11

JOB NUMBER 3934 DATE OF SAMPLING 8-29-06

WELL ID. MW-4 SAMPLER MLR

TOTAL DEPTH OF WELL 245 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 10.43

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 14.07

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 6.7

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 7.0

SAMPLING DEVICE Bailer

SAMPLE COLOR clear gray ODOR/SEDIMENT No/ No

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
<u>1</u>	<u>65.8</u>	<u>6.80</u>	<u>1642</u>
<u>2</u>	<u>65.6</u>	<u>6.72</u>	<u>1636</u>
<u>3</u>	<u>65.6</u>	<u>6.68</u>	<u>1628</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVE
<u>MW-4</u>	<u>5</u>	<u>VOA</u>		<u>HU</u>

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Albany H:U  
 JOB NUMBER 3934 DATE OF SAMPLING 8-29-06  
 WELL ID. MW-SR SAMPLER MLR  
 TOTAL DEPTH OF WELL 19.58 WELL DIAMETER 2  
 DEPTH TO WATER PRIOR TO PURGING 10.10  
 PRODUCT THICKNESS 0  
 DEPTH OF WELL CASING IN WATER 9.48  
 NUMBER OF GALLONS PER WELL CASING VOLUME 1.5  
 NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3  
 REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 4.5  
 EQUIPMENT USED TO PURGE WELL Bailer  
 TIME EVACUATION STARTED 1110 TIME EVACUATION COMPLETED 1120  
 TIME SAMPLES WERE COLLECTED 1125  
 DID WELL GO DRY NO AFTER HOW MANY GALLONS -  
 VOLUME OF GROUNDWATER PURGED 5.0  
 SAMPLING DEVICE Bailer  
 SAMPLE COLOR clear ODOR/SEDIMENT No / No

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
<u>1</u>	<u>68.1</u>	<u>7.61</u>	<u>532</u>
<u>2</u>	<u>67.9</u>	<u>7.26</u>	<u>529</u>
<u>3</u>	<u>67.6</u>	<u>7.20</u>	<u>504</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVE
<u>MW-SR</u>	<u>5</u>	<u>VCA</u>		<u>HQ</u>



# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Albany Hill  
 JOB NUMBER 3934 DATE OF SAMPLING 8-29-06  
 WELL ID. MW-6 SAMPLER MLR  
 TOTAL DEPTH OF WELL 24.7 WELL DIAMETER 2  
 DEPTH TO WATER PRIOR TO PURGING 9.15  
 PRODUCT THICKNESS 0  
 DEPTH OF WELL CASING IN WATER 15.55  
 NUMBER OF GALLONS PER WELL CASING VOLUME 2.5  
 NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3  
 REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 7.8  
 EQUIPMENT USED TO PURGE WELL Bailer  
 TIME EVACUATION STARTED 1020 TIME EVACUATION COMPLETED 1035  
 TIME SAMPLES WERE COLLECTED 1040  
 DID WELL GO DRY No AFTER HOW MANY GALLONS —  
 VOLUME OF GROUNDWATER PURGED 8.0  
 SAMPLING DEVICE Bailer  
 SAMPLE COLOR Clear ODOR/SEDIMENT No 0 / No Sed

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
<u>1</u>	<u>69.4</u>	<u>7.60</u>	<u>564</u>
<u>2</u>	<u>68.3</u>	<u>7.19</u>	<u>540</u>
<u>3</u>	<u>67.9</u>	<u>7.15</u>	<u>523</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
<u>MW-6</u>	<u>5</u>	<u>VOA</u>		<u>HCL</u>

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Albany Hill  
 JOB NUMBER 3434 DATE OF SAMPLING 8-24-06  
 WELL ID. MW-7 SAMPLER MLR  
 TOTAL DEPTH OF WELL 24.7 WELL DIAMETER 2  
 DEPTH TO WATER PRIOR TO PURGING 11.21  
 PRODUCT THICKNESS 0  
 DEPTH OF WELL CASING IN WATER 13.49  
 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 6.7  
 EQUIPMENT USED TO PURGE WELL Bailer  
 TIME EVACUATION STARTED 925 TIME EVACUATION COMPLETED 945  
 TIME SAMPLES WERE COLLECTED 950  
 DID WELL GO DRY No AFTER HOW MANY GALLONS —  
 VOLUME OF GROUNDWATER PURGED Bailer 7.0  
 SAMPLING DEVICE Bailer  
 SAMPLE COLOR clear ODOR/SEDIMENT HCL odor / no S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	66.2	7.28	802
2	65.7	7.17	805
3	65.4	7.10	809

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVE
MW-7	5	VOA		HCL

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Albany Hill

JOB NUMBER 3934 DATE OF SAMPLING 8-29-06

WELL ID. MW-8 SAMPLER MLK

TOTAL DEPTH OF WELL 19.1 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 10.77

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 8.33

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 Bailer

TIME EVACUATION STARTED 900 TIME EVACUATION COMPLETED 915

TIME SAMPLES WERE COLLECTED 920

DID WELL GO DRY No AFTER HOW MANY GALLONS —

VOLUME OF GROUNDWATER PURGED 4.0

SAMPLING DEVICE Bailer

SAMPLE COLOR clear ODOR/SEDIMENT Slight O / No S

### TEMPERATURE DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	68.1	7.7.3	793
2	67.4	7.40	800
3	67.1	7.34	811

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINERS	ANALYSIS	PRESERVED
MW-8	5	VOA		HCL



# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Albany Hill

JOB NUMBER 3934

DATE OF SAMPLING 8-29-06

WELL ID. MW-9

SAMPLER MLR

TOTAL DEPTH OF WELL 16.8

WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 11.91

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 4.89

NUMBER OF GALLONS PER WELL CASING VOLUME .81

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 2.4

EQUIPMENT USED TO PURGE WELL Bailer

TIME EVACUATION STARTED 1245

TIME EVACUATION COMPLETED 1:05

TIME SAMPLES WERE COLLECTED 110

DID WELL GO DRY No

AFTER HOW MANY GALLONS -

VOLUME OF GROUNDWATER PURGED 3.0

SAMPLING DEVICE Bailer

SAMPLE COLOR clear

ODOR/SEDIMENT Strong 0 / No S

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
<u>1</u>	<u>71.4</u>	<u>7.60</u>	<u>700</u>
<u>2</u>	<u>68.6</u>	<u>7.44</u>	<u>666</u>
<u>3</u>	<u>67.9</u>	<u>7.39</u>	<u>651</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVE
<u>MW-9</u>	<u>5</u>	<u>VVA</u>		<u>HG</u>

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME

Albany Hill

JOB NUMBER

3934

DATE OF SAMPLING

8-29-06

WELL ID.

MW-10

SAMPLER

MLR

TOTAL DEPTH OF WELL

24.7

WELL DIAMETER

2

DEPTH TO WATER PRIOR TO PURGING

9.75

PRODUCT THICKNESS

0

DEPTH OF WELL CASING IN WATER

14.95

NUMBER OF GALLONS PER WELL CASING VOLUME

249

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

Bailer

TIME EVACUATION STARTED

1045

TIME EVACUATION COMPLETED

1100

TIME SAMPLES WERE COLLECTED

1105

DID WELL GO DRY

No

AFTER HOW MANY GALLONS ~

VOLUME OF GROUNDWATER PURGED

8.0

SAMPLING DEVICE

SAMPLE COLOR

gray - green

ODOR/SEDIMENT

slight O/some gray S.

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	69.1	7.31	990
2	68.7	7.10	1014
3	68.5	7.07	1037

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-10	5	VOA		HCE





Aqua Science Engineers, Inc. 208 West El Pintado, Suite C, 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 : 51882

Date : 8/31/2006

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

Subject : 10 Water Samples  
Project Name : Albany Hill  
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,



Joel Kiff

Subject : 10 Water Samples  
Project Name : Albany Hill  
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-1, MW-4, MW-5R, MW-7 and MW-9.

Tert-Butanol results for sample MW-3 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.

Matrix Spike/Matrix Spike Duplicate Results associated with sample MW-4 for the analyte Benzene were affected by the analyte concentrations already present in the un-spiked sample.

Approved By: \_\_\_\_\_

Joe Kiff



Report Number : 51882

Date : 8/31/2006

Project Name : **Albany Hill**Project Number : **3934**Sample : **MW-1**

Matrix : Water

Lab Number : 51882-01

Sample Date :8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>1100</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Toluene</b>	<b>6.6</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Ethylbenzene</b>	<b>170</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Total Xylenes</b>	<b>16</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>250</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 2.0</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 2.0</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 2.0</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Tert-Butanol</b>	<b>&lt; 9.0</b>	9.0	ug/L	EPA 8260B	8/29/2006
<b>TPH as Gasoline</b>	<b>3200</b>	200	ug/L	EPA 8260B	8/29/2006
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	8/29/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	8/29/2006
<b>TPH as Diesel</b>	<b>&lt; 200</b>	200	ug/L	M EPA 8015	8/30/2006
Octacosane (Diesel Surrogate)	97.0		% Recovery	M EPA 8015	8/30/2006

Approved By:

Joel Kiff



Report Number : 51882

Date : 8/31/2006

Project Name : **Albany Hill**

Project Number : **3934**

Sample : **MW-2**

Matrix : Water

Lab Number : 51882-02

Sample Date :8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>13</b>	0.50	ug/L	EPA 8260B	8/30/2006
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/30/2006
<b>Ethylbenzene</b>	<b>1.3</b>	0.50	ug/L	EPA 8260B	8/30/2006
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/30/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>480</b>	1.5	ug/L	EPA 8260B	8/29/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/30/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/30/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/30/2006
<b>Tert-Butanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	8/30/2006
<b>TPH as Gasoline</b>	<b>110</b>	50	ug/L	EPA 8260B	8/30/2006
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	8/30/2006
4-Bromofluorobenzene (Surr)	95.1		% Recovery	EPA 8260B	8/30/2006
<b>TPH as Diesel</b>	<b>120</b>	50	ug/L	M EPA 8015	8/29/2006
Octacosane (Diesel Surrogate)	97.8		% Recovery	M EPA 8015	8/29/2006

Approved By:

Joel Kiff





Report Number : 51882

Date : 8/31/2006

Project Name : **Albany Hill**Project Number : **3934**Sample : **MW-3**

Matrix : Water

Lab Number : 51882-03

Sample Date : 8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>24</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Toluene</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Ethylbenzene</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Total Xylenes</b>	<b>14</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>2800</b>	4.0	ug/L	EPA 8260B	8/29/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>9.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Tert-Butanol</b>	<b>40 J</b>	20	ug/L	EPA 8260B	8/29/2006
<b>TPH as Gasoline</b>	<b>&lt; 400</b>	400	ug/L	EPA 8260B	8/28/2006
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	8/28/2006
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	8/28/2006
<b>TPH as Diesel</b>	<b>130</b>	50	ug/L	M EPA 8015	8/29/2006
Octacosane(Diesel Surrogate)	100		% Recovery	M EPA 8015	8/29/2006

Approved By:

Joel Kiff



Report Number : 51882

Date : 8/31/2006

Project Name : **Albany Hill**

Project Number : **3934**

Sample : **MW-4**

Matrix : Water

Lab Number : 51882-04

Sample Date : 8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>830</b>	2.5	ug/L	EPA 8260B	8/29/2006
<b>Toluene</b>	<b>6.5</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Ethylbenzene</b>	<b>120</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Total Xylenes</b>	<b>120</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>95</b>	2.5	ug/L	EPA 8260B	8/29/2006
<b>Diisopropyl ether (DIPE)</b>	<b>1.6</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.90</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.90</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Tert-Butanol</b>	<b>18</b>	15	ug/L	EPA 8260B	8/29/2006
<b>TPH as Gasoline</b>	<b>2500</b>	90	ug/L	EPA 8260B	8/28/2006
Toluene - d8 (Surr)	96.2		% Recovery	EPA 8260B	8/28/2006
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	8/28/2006
<b>TPH as Diesel</b>	<b>&lt; 300</b>	300	ug/L	M EPA 8015	8/29/2006
Octacosane (Diesel Surrogate)	104		% Recovery	M EPA 8015	8/29/2006

Approved By:

Joel Kiff



Report Number : 51882

Date : 8/31/2006

Project Name : **Albany Hill**

Project Number : **3934**

Sample : **MW-5R**

Matrix : Water

Lab Number : 51882-05

Sample Date : 8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>80</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Toluene</b>	<b>1.8</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Ethylbenzene</b>	<b>510</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Total Xylenes</b>	<b>18</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 0.90</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.90</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.90</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.90</b>	0.90	ug/L	EPA 8260B	8/28/2006
<b>Tert-Butanol</b>	<b>9.9</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>TPH as Gasoline</b>	<b>6500</b>	90	ug/L	EPA 8260B	8/28/2006
Toluene - d8 (Surr)	95.6		% Recovery	EPA 8260B	8/28/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	8/28/2006
<b>TPH as Diesel</b>	<b>&lt; 2000</b>	2000	ug/L	M EPA 8015	8/29/2006
Octacosane (Diesel Surrogate)	102		% Recovery	M EPA 8015	8/29/2006

Approved By:

Joel Kiff



Report Number : 51882

Date : 8/31/2006

Project Name : **Albany Hill**

Project Number : **3934**

Sample : **MW-6**

Matrix : Water

Lab Number : 51882-06

Sample Date : 8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>57</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Toluene</b>	<b>2.3</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Total Xylenes</b>	<b>1.1</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>64</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>0.82</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Tert-Butanol</b>	<b>34</b>	5.0	ug/L	EPA 8260B	8/29/2006
<b>TPH as Gasoline</b>	<b>1200</b>	50	ug/L	EPA 8260B	8/29/2006
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	8/29/2006
4-Bromofluorobenzene (Surr)	95.7		% Recovery	EPA 8260B	8/29/2006
<b>TPH as Diesel</b>	<b>960</b>	50	ug/L	M EPA 8015	8/29/2006
Octacosane (Diesel Surrogate)	97.8		% Recovery	M EPA 8015	8/29/2006

Approved By:

Joel Kiff



Project Name : **Albany Hill**

Project Number : **3934**

Sample : **MW-7**

Matrix : Water

Lab Number : 51882-07

Sample Date :8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>120</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Toluene</b>	<b>0.96</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Ethylbenzene</b>	<b>36</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Total Xylenes</b>	<b>51</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>180</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	8/29/2006
<b>Tert-Butanol</b>	<b>13</b>	5.0	ug/L	EPA 8260B	8/29/2006
<b>TPH as Gasoline</b>	<b>990</b>	50	ug/L	EPA 8260B	8/29/2006
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	8/29/2006
4-Bromofluorobenzene (Surr)	95.5		% Recovery	EPA 8260B	8/29/2006
<b>TPH as Diesel</b>	<b>&lt; 200</b>	200	ug/L	M EPA 8015	8/29/2006
Octacosane (Diesel Surrogate)	102		% Recovery	M EPA 8015	8/29/2006

Approved By:

Joel Kiff

Project Name : **Albany Hill**

Project Number : **3934**

Sample : **MW-8**

Matrix : Water

Lab Number : 51882-08

Sample Date : 8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>74</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>Toluene</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>Ethylbenzene</b>	<b>5.4</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>Total Xylenes</b>	<b>45</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>2700</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>15</b>	5.0	ug/L	EPA 8260B	8/28/2006
<b>Tert-Butanol</b>	<b>&lt; 25</b>	25	ug/L	EPA 8260B	8/28/2006
<b>TPH as Gasoline</b>	<b>540</b>	500	ug/L	EPA 8260B	8/28/2006
Toluene - d8 (Surr)	97.0		% Recovery	EPA 8260B	8/28/2006
4-Bromofluorobenzene (Surr)	109		% Recovery	EPA 8260B	8/28/2006
<b>TPH as Diesel</b>	<b>260</b>	50	ug/L	M EPA 8015	8/29/2006
Octacosane (Diesel Surrogate)	101		% Recovery	M EPA 8015	8/29/2006

Approved By:

Joel Kiff



Report Number : 51882

Date : 8/31/2006

Project Name : **Albany Hill**

Project Number : **3934**

Sample : **MW-9**

Matrix : Water

Lab Number : 51882-09

Sample Date : 8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>550</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Toluene</b>	<b>220</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Ethylbenzene</b>	<b>280</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Total Xylenes</b>	<b>1200</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 2.0</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 2.0</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 2.0</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 2.0</b>	2.0	ug/L	EPA 8260B	8/29/2006
<b>Tert-Butanol</b>	<b>&lt; 9.0</b>	9.0	ug/L	EPA 8260B	8/29/2006
<b>TPH as Gasoline</b>	<b>6100</b>	200	ug/L	EPA 8260B	8/29/2006
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	8/29/2006
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	8/29/2006
<b>TPH as Diesel</b>	<b>&lt; 800</b>	800	ug/L	M EPA 8015	8/30/2006
Octacosane (Diesel Surrogate)	105		% Recovery	M EPA 8015	8/30/2006

Approved By:

Joel Kiff



Report Number : 51882

Date : 8/31/2006

Project Name : **Albany Hill**

Project Number : **3934**

Sample : **MW-10**

Matrix : Water

Lab Number : 51882-10

Sample Date :8/24/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Toluene</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Ethylbenzene</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Total Xylenes</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1400</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 4.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Tert-amyl methyl ether (TAME)</b>	<b>7.0</b>	4.0	ug/L	EPA 8260B	8/28/2006
<b>Tert-Butanol</b>	<b>&lt; 20</b>	20	ug/L	EPA 8260B	8/28/2006
<b>TPH as Gasoline</b>	<b>&lt; 400</b>	400	ug/L	EPA 8260B	8/28/2006
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	8/28/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	8/28/2006
<b>TPH as Diesel</b>	<b>140</b>	50	ug/L	M EPA 8015	8/30/2006
Octacosane (Diesel Surrogate)	107		% Recovery	M EPA 8015	8/30/2006

Approved By:

Joel Kiff



Report Number : 51882

Date : 8/31/2006

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

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	8/29/2006
Octacosane (Diesel Surrogate)	99.8		%	M EPA 8015	8/29/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	8/28/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/28/2006
Toluene - d8 (Surr)	95.8		%	EPA 8260B	8/28/2006
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	8/28/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	8/28/2006
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	8/28/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/28/2006
Toluene - d8 (Surr)	100		%	EPA 8260B	8/28/2006
4-Bromofluorobenzene (Surr)	92.2		%	EPA 8260B	8/28/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	8/29/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	8/29/2006
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	8/29/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/29/2006
Toluene - d8 (Surr)	97.6		%	EPA 8260B	8/29/2006
4-Bromofluorobenzene (Surr)	95.2		%	EPA 8260B	8/29/2006

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

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

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Albany Hill**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	942	1000	ug/L	M EPA 8015	8/29/06	94.2	100	6.45	70-130	25
Benzene	51879-05	<0.50	39.9	39.8	39.7	39.9	ug/L	EPA 8260B	8/28/06	99.5	100	0.836	70-130	25
Toluene	51879-05	<0.50	39.9	39.8	37.9	38.0	ug/L	EPA 8260B	8/28/06	95.0	95.6	0.633	70-130	25
Tert-Butanol	51879-05	<5.0	200	199	198	194	ug/L	EPA 8260B	8/28/06	99.0	97.5	1.50	70-130	25
Methyl-t-Butyl Ether	51879-05	<0.50	39.9	39.8	43.2	41.2	ug/L	EPA 8260B	8/28/06	108	104	4.31	70-130	25
Benzene	51869-01	<0.50	40.0	40.0	43.3	42.8	ug/L	EPA 8260B	8/28/06	108	107	1.06	70-130	25
Toluene	51869-01	<0.50	40.0	40.0	43.1	42.8	ug/L	EPA 8260B	8/28/06	108	107	0.765	70-130	25
Tert-Butanol	51869-01	<5.0	200	200	204	199	ug/L	EPA 8260B	8/28/06	102	99.5	2.54	70-130	25
Methyl-t-Butyl Ether	51869-01	1.0	40.0	40.0	44.8	44.8	ug/L	EPA 8260B	8/28/06	110	109	0.203	70-130	25
Benzene	51877-02	110	40.0	40.0	166	161	ug/L	EPA 8260B	8/29/06	135	123	9.58	70-130	25
Toluene	51877-02	1.2	40.0	40.0	43.0	41.7	ug/L	EPA 8260B	8/29/06	104	101	3.25	70-130	25
Tert-Butanol	51877-02	200	200	200	408	410	ug/L	EPA 8260B	8/29/06	103	104	0.753	70-130	25
Methyl-t-Butyl Ether	51877-02	0.71	40.0	40.0	41.7	41.8	ug/L	EPA 8260B	8/29/06	102	103	0.121	70-130	25
Benzene	51887-02	<0.50	40.0	40.0	43.0	40.5	ug/L	EPA 8260B	8/29/06	108	101	6.18	70-130	25
Toluene	51887-02	<0.50	40.0	40.0	41.5	38.5	ug/L	EPA 8260B	8/29/06	104	96.2	7.47	70-130	25
Tert-Butanol	51887-02	<5.0	200	200	199	181	ug/L	EPA 8260B	8/29/06	99.7	90.6	9.57	70-130	25
Methyl-t-Butyl Ether	51887-02	4.1	40.0	40.0	43.4	40.5	ug/L	EPA 8260B	8/29/06	98.2	91.1	7.57	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 51882

Date : 8/31/2006

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **Albany Hill**

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	8/28/06	99.1	70-130
Toluene	40.0	ug/L	EPA 8260B	8/28/06	94.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/28/06	96.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/28/06	106	70-130
Benzene	40.0	ug/L	EPA 8260B	8/28/06	104	70-130
Toluene	40.0	ug/L	EPA 8260B	8/28/06	106	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/28/06	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/28/06	106	70-130
Benzene	40.0	ug/L	EPA 8260B	8/29/06	102	70-130
Toluene	40.0	ug/L	EPA 8260B	8/29/06	105	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/29/06	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/29/06	108	70-130
Benzene	40.0	ug/L	EPA 8260B	8/29/06	103	70-130
Toluene	40.0	ug/L	EPA 8260B	8/29/06	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/29/06	94.5	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/29/06	96.7	70-130

KIFF ANALYTICAL, LLC

Approved By:

Joel Kiff

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



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

# Chain of Custody

51882

SAMPLER (SIGNATURE)

*M.R.*

PROJECT NAME

Albany Hill

PAGE 1 OF 1

ADDRESS

800 San Pablo

JOB NO. 3934

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

ANALYSIS REQUEST					SPECIAL INSTRUCTIONS:																	HOLD	EDF
SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/8080)	FUEL OXYGENATES - 5 (EPA 8260) BTEX/THG	Pb (TOTAL or DISSOLVED) (EPA 6010)	PURGEABLE HALOCARBONS (EPA 601/8010)	MULTI-RANGE HYDROCARBONS	SILICA-GEL CLEANUP				
MW-1	8-24-06	1240	W	5		X									X						X	0	
MW-2		1015				X									X						X	0	
MW-3		1210				X									X						X	0	
MW-4		1150				X									X						X	0	
MW-5R		1125				X									X						X	04	
MW-6		1040				X									X						X	05	
MW-7		950				X									X						X	06	
MW-8		920				X									X						X	07	
MW-9		110				X									X						X	08	
MW-10		1105				X									X						X	09	
																						10	

SAMPLE RECEIPT

Temp °C 22 Therm. ID# 105

Initial JAH Date 082806

Time 1405 Coolant present Yes/No

### SAMPLE RECEIPT

Temp °C 22 Therm. ID# 1105  
Initial G.H. Date 082806  
Time 1405 Coolant present (Yes/No)

RELINQUISHED BY:

*M.R.* (signature) 1700 (time)

RECEIVED BY:

(signature) (time)

RELINQUISHED BY:

(signature) (time)

RECEIVED BY LABORATORY:

*Kitt* (signature) 1130 (time)

COMMENTS:

HCL

D. ALLEN  
(printed name) (date)

Company-ASE, INC.

(printed name) (date)

Company-

(printed name) (date)

Company-

*Jason P. Harris* (signature) 082806 (date)

Company-

*Kitt Analytical*

TURN AROUND TIME

STANDARD 24Hr 48Hr 72Hr

OTHER: