

Alameda County Health Care Services Agency  
1131 Harbor Bay Pkwy, Suite 250  
Alameda, CA 94502

Subject: RO#0000262

Albany Hill Mini Mart  
800 San Pablo Avenue  
Albany, CA

Attached please find a copy of the most recent groundwater sampling report for the above referenced site. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,

Jasminder Sikand



**RECEIVED**

By Alameda County Environmental Health 9:12 am, Dec 07, 2015



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)

December 4, 2015

QUARTERLY GROUNDWATER MONITORING  
AND SOIL VAPOR SAMPLING REPORT  
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  
Danville, CA 94526  
(925) 820-9391



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)

## 1.0 INTRODUCTION

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

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

### Responsible Party

Jasminder & Sonia Sikand  
1066 Rock Harbor Point  
Hercules, CA 94547

### 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: Mark Detterman  
(510) 567-6876

The following is a report detailing the results of the October 2015 quarterly groundwater sampling at the Albany Hill Mini Mart property. Also included is a soil vapor sampling for soil vapor wells MW-4 (to confirm the elevated concentrations from the previous sampling event and SVW-1 (since a laboratory error on the previous sampling did not allow for usable data from this well). This sampling was originally scheduled for September 2015 to be in the third quarter of 2015. However, since it rained within the 5 day window prior to the scheduled soil vapor sampling, the work was delayed to allow the sampling to take place outside of the 5-days without prior rain requirement for a valid soil vapor sampling.

This sampling was conducted as required by the ACHCSA. The sampling schedule was reverted to a quarterly monitoring schedule at the request of the ACHCSA to monitor for possible rebound from the discontinuation of groundwater remediation, which ceased on March 2, 2015. ASE prepared this report on behalf of Jasminder and Sonia Sikand, the responsible party.



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)

## **2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT**

On October 7, 2015, 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 general groundwater flow direction is toward the east and north. The groundwater flow direction at the site varies significantly from quarter to quarter, and was likely previously effected by the ozone-sparging taking place at the site. In general, the groundwater gradient is much flatter this quarter than in previous sampling periods,

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

On October 7, 2015, 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 electrical conductivity were monitored during the well purging, and samples were not collected until these parameters stabilized. Monitoring well MW-9 went dry prior to completion of the purging of three well casing volumes and was allowed to recover for two hours prior to sampling. 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 McCampbell Analytical, Inc. of Pittsburg, California (ELAP #1644) under appropriate chain-of-custody documentation. Well sampling field logs are presented in Appendix A.

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

The groundwater samples were analyzed by McCampbell Analytical for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX), fuel oxygenates including methyl tertiary-butyl ether (MTBE), and naphthalene by EPA Method 8260B. Analysis for total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 8015M was previously discontinued as agreed upon by the Alameda County Health Care Services Agency, although this analysis was performed this quarter. The analytical results for this and previous sampling events are summarized in Table Two. TPH-G, benzene, and MTBE isoconcentration maps are presented as Figures 3, 4, and 5, respectively.

The certified analytical report and chain-of-custody documentation are included as Appendix B.

## **4.0 SOIL VAPOR SAMPLE COLLECTION AND ANALYSIS**

Prior to conducting the project, ASE verified that there was no significant rainfall (no more than ¼-inch) for 5 days prior to the soil vapor sampling. There were no nearby irrigation systems.



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)

On October 7, 2015, ASE collected soil vapor samples from soil vapor monitoring wells SVW-1 and SVW-5 (Figure 6). There was no measurable rainfall within 5 days prior to this sampling. The sampling was delayed from a prior date in September due to rainfall within the 5-previous day window.

Prior to sampling, a “vacuum shut in test” was conducted to verify there were no leaks in the sample train system. A minimum vacuum of 100-inches of water column was applied to the sampling manifold and valve system between the Summa canister and the probe for at least 5 minutes with all valves closed. A vacuum of 100-inches of water was maintained during the test for both points.

For the sampling, the vapor monitoring well and Summa canister were placed in a plastic shroud with glove entry. Helium was then added to the shroud as a tracer gas at a minimum concentration between 25 to 30% by volume, which was monitored by a helium detector. The tubing was then purged of at least three volumes to insure that all ambient air was removed from the tubing using a 5-liter Summa canister. The sample was then collected in a 1-liter Summa canister. The sample was labeled with the site location, sample designation, date and time the samples are collected, and the initials of the person collecting the sample. The samples were delivered under chain of custody to a CAL-EPA certified analytical laboratory for analysis.

It should be noted that all of the Summa canisters were very slow filling due to tight soil conditions, and neither Summa canister filled despite being open between 1.5 and 2.5 hours. Negative pressure in the Summa for SVW-1 only went from -29.5 to -25-inches of Hg in 90 minutes. Negative pressure in the Summa canister for SVW-5 only went from -30 to -23-inches of Hg in 150 minutes. Since the flow rate was so slow, it was not possible to collect the desired sample in the TO-17 cartridge for analysis since TO-17 canisters require a steady flow of vapor through relatively high permeability soil.

The vapor samples were analyzed by McCampbell Analytical of Pittsburg, California (ELAP certification 1644) for TPH-G, BTEX, five fuel oxygenates, and naphthalene by EPA Method TO-15 and oxygen, carbon dioxide, methane and helium by ASTM D1946. Nitrogen analysis wasn't performed since the Summa canisters were pressurized with nitrogen. The analytical results are tabulated in Table Three, and the certified analytical report and chain of custody form are included in Appendix C. Helium, used as a leak check gas, was not detected in either sample with detection limits below 10% of the helium concentration within the sampling shroud. The helium concentration in the shroud was always kept between 25-30%. This indicates that the sample train was leak free and the results considered valid.

## 5.0 RESULTS AND CONCLUSIONS

### 5.1 Groundwater

- In groundwater samples collected from monitoring well MW-1, TPH-D was detected at a concentration of 84 parts per billion (ppb), benzene at 1.7 ppb, and MTBE at 2.7 ppb. No other hydrocarbons were detected. Overall, there has been a significant long-term decreasing trend of hydrocarbon concentrations in this well. Although benzene and MTBE



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)

concentrations were slightly higher than last quarter, they are still near historic low concentrations.

- No TPH-G, BTEX, naphthalene or oxygenates were detected in groundwater samples collected from monitoring well MW-2. This is the 16th consecutive sampling event that no hydrocarbons or oxygenates were detected in this well.
- No TPH-G, BTEX, naphthalene or oxygenates were detected in groundwater samples collected from monitoring well MW-3. This is the 10th time in the last 12 sampling events that no hydrocarbons or oxygenates were detected in groundwater samples from this well.
- Groundwater samples collected from monitoring well MW-4 contained 110 ppb TPH-G, 2.9 ppb benzene, 7.3 ppb MTBE, and 2.5 ppb TBA. The benzene concentration is at a historic low, and the TPH-G, MTBE and TBA concentrations were among the lowest concentrations historically detected. There has been a significant long-term decreasing trend in hydrocarbon concentrations from this well.
- Groundwater samples collected from monitoring well MW-5R contained 290 ppb TPH-G and 51 ppb TPH-D. These results show a significant decrease in concentrations from the previous quarter, and there is a long-term decreasing trend in hydrocarbon concentrations from this well. The hydrocarbon concentrations are at their lowest since 2010. No BTEX, oxygenates or naphthalene were detected.
- The TPH-G concentration in groundwater samples collected from monitoring well MW-6 this quarter was 1,400 ppb, which is a significant increase from the concentration last quarter. The TBA and MTBE concentrations also increased slightly to 2.5 ppb and 11 ppb, respectively. No BTEX has been detected in this well since 2009. No naphthalene was detected in groundwater samples collected from monitoring well MW-6 during this sampling period. There has been a long-term decreasing trend in hydrocarbon concentrations from this well, other than sporadic TPH-G and MTBE concentrations being detected.
- No TPH-G, BTEX, naphthalene, or oxygenates were detected in groundwater samples collected from monitoring well MW-7. This is the 16th time in the last 18 sampling events and the 9<sup>th</sup> consecutive sampling event, that no hydrocarbons or oxygenates were detected in groundwater samples collected from this well.
- No hydrocarbons or oxygenates were detected in groundwater samples collected from monitoring well MW-8 this quarter. This is the 17th consecutive sampling event that no hydrocarbons were detected in groundwater samples collected from this well.
- Groundwater samples collected from monitoring well MW-9 contained 1,100 ppb TPH-G, 160 ppb TPH-D, 17 ppb benzene, 78 ppb ethyl benzene, 43 ppb total xylenes, and 17 ppb naphthalene. These results show a decrease in TPH-G, benzene, ethyl benzene, total xylenes, and naphthalene concentrations from the previous sampling event. There has been a long-term decreasing trend in hydrocarbon concentrations in this well, with the benzene, xylenes and naphthalene concentrations at historic lows.



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)

- The only compounds detected in groundwater samples collected from monitoring well MW-10 during this sampling period were 270 ppb TPH-G and 1.3 ppb MTBE. These concentrations are very similar to the previous sampling event.

Concentrations exceeding Environmental Screening Levels (ESLs) established by the California Regional Water Quality Control Board, San Francisco Bay Region in their “Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater” document dated December 2013 for sites where groundwater is a current or potential source of drinking water:

- In MW-1, no concentrations exceeded ESLs.
- In MW-2, no concentrations exceeded ESLs.
- In MW-3, no concentrations exceeded ESLs.
- In MW-4, TPH-G, benzene and MTBE concentrations exceeded ESLs.
- In MW-5R, the TPH-G concentration exceeded the ESL.
- In MW-6, TPH-G, TPH-D and MTBE concentrations exceeded ESLs.
- In MW-7, no concentrations exceeded ESLs.
- In MW-8, no concentrations exceeded ESLs.
- In MW-9, TPH-G, TPH-D, benzene, ethyl benzene, total xylene and naphthalene concentrations exceeded ESLs.
- In MW-10, the TPH-G concentration exceeded the ESL.

## 5.2 Soil Vapor

- The soil vapor sample collected from SVW-1 contained 1,300 ug/m<sup>3</sup> TPH-G, 4.1 ug/m<sup>3</sup> benzene, 12 ug/m<sup>3</sup> toluene, 13 ug/m<sup>3</sup> total xylenes, and 9.2 ug/m<sup>3</sup> naphthalene. These concentrations are approximately an order of magnitude less than what was detected in the previous sampling in February 2014. None of the concentrations detected exceeded either residential or commercial ESLs.
- The soil vapor sample collected from SVW-5 contained 4,700,000 ug/m<sup>3</sup> TPH-G, 20,000 ug/m<sup>3</sup> benzene, and 10,000 ug/m<sup>3</sup> ethyl benzene. All of these concentrations increased significantly from the previous sampling in June 2015, and all of these concentrations exceed both residential and commercial ESLs. No toluene, xylenes, naphthalene or oxygenates were detected. This vapor sample is from a depth of 10-feet bgs. These results are only relevant to the basement beneath the adjacent Mallard Club, as the results from SVW-4, which was collected from 5-feet bgs, is more relevant to the first story of the building. The adjacent building is approximately 12-feet from this boring. Closer borings are not possible due to the numerous underground utility lines in the sidewalk.

Besides the ESLs, ASE also compared the results to the Low-Risk Soil Gas Criteria outlined in Appendix 4, Scenario 4 – Direct Measurement of Soil Gas Concentrations with Bioattenuation zone from the State Water Resources Control Board, Low-Threat Underground Storage Tank Case Closure Policy, 2012. This scenario is relevant since a) there is minimum of five vertical feet of soil between the soil vapor measurement and the foundation of the building (except for



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)

the Mallard Club basement, which will be discussed below), b) all of the soil above 5-feet have total petroleum hydrocarbon concentrations well below 100 ppm (highest actual concentration is 2.5 ppm), and c) the oxygen concentration in the soil vapor samples exceeds 4% (except in SVW-5, which was just below 4% oxygen at 3.8% during this sampling event and 35% in June 2015). All of the soil vapor results were below both the residential and commercial Low-Risk Soil Gas Criteria where a bioattenuation zone is present.

However, for the soil vapor sample from SVW-5, this sample was collected from a depth of 10-feet bgs. It is unknown what the depth of the basement in the Mallard Club may be, but it is likely deeper than 5-feet, which would invalidate the use of the bioattenuation zone criteria since the sample was not deeper than 5-feet beneath the building foundation. There is no scenario within the Low-Risk Soil Gas Criteria for horizontal distances. It is not possible to collect a deeper sample or a closer sample to the building due to the depth to groundwater and the presence of utility lines within the sidewalk. For this reason, given the current data, it is not possible to determine whether the results from SVW-5 present a risk to indoor air in the basement of the Mallard Club. There is also a curious reduction in the oxygen content in the sample from SVW-5 from 35% in June 2015 to 3.8% in October 2015. Explanations for this could be a decrease in oxygen from the discontinuation of ozone sparging or possible laboratory issues from the low volume of sample within the Summa canisters.

## 6.0 RECOMMENDATIONS

ASE recommends the following:

- ASE recommends the removal of MW-2, MW-3, MW-7 and MW-8 from the groundwater monitoring program, since no hydrocarbons have been detected in any of these wells for at least 5 years.
- ASE recommends at least one additional soil vapor sampling from SVW-5, as well as a 24-hour indoor air sampling from within the basement of the Mallard Club.

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

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.

A handwritten signature in black ink that reads "Robert E. Kitay". The signature is fluid and cursive, with "Robert" and "E." being more formal and "Kitay" being more stylized.

Robert E. Kitay, P.G.  
Senior Geologist

Attachments: Figures 1 through 6  
Tables One through Three  
Appendices A through C

cc: Mr. Mark Detterman, ACHCSA via upload to ACHCSA database  
RWQCB via Geotracker



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)

## FIGURES



NORTH



#### LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

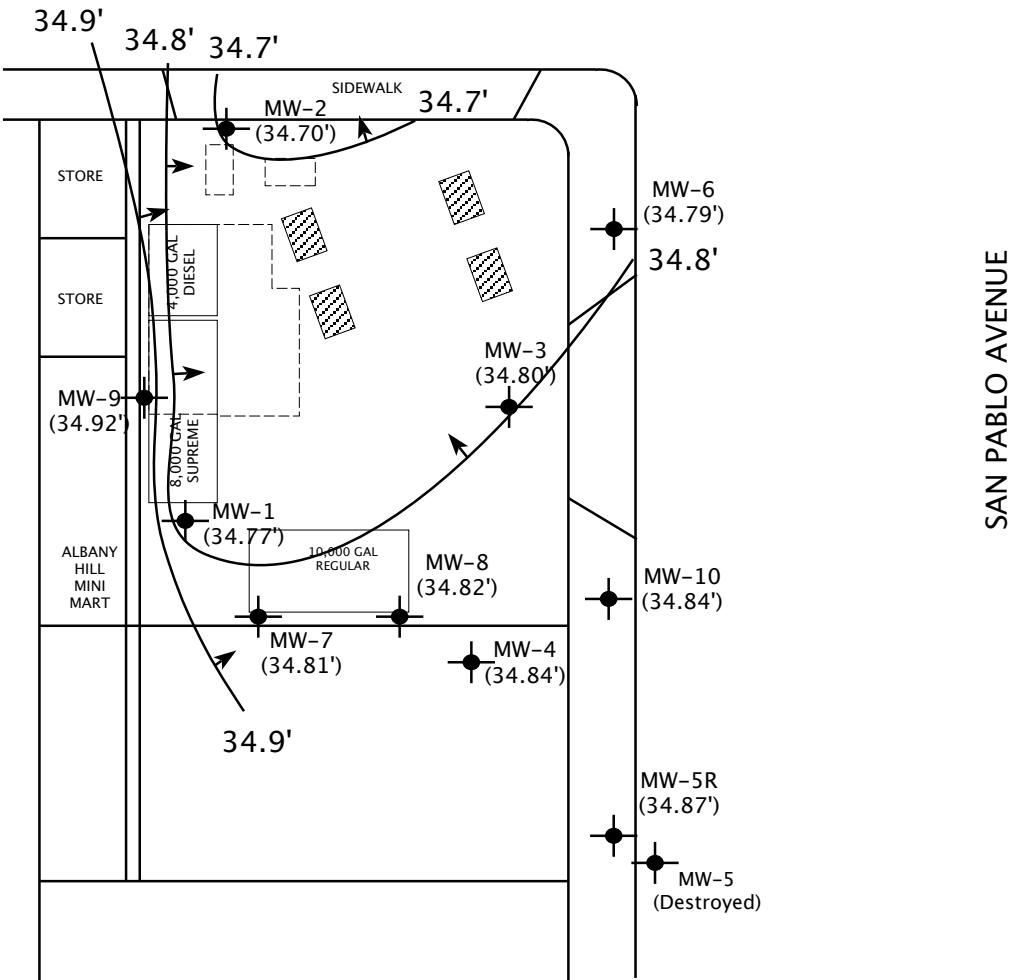
Figure 1



NORTH

WASHINGTON AVENUE

SCALE: 1" = 20'



SAN PABLO AVENUE

MW-9  
(34.92')

LEGEND

MONITORING WELL  
WITH GROUNDWATER ELEVATION IN FEET

GROUNDWATER ELEVATION CONTOUR LINE  
WITH FLOW DIRECTION

\* ANOMALOUS GROUNDWATER ELEVATION: NOT  
USED FOR CONTOURING

APPROXIMATE FORMER UST LOCATION  
AND AREA OF EXCAVATION

POTENTIOMETRIC  
SURFACE CONTOUR MAP  
OCTOBER 7, 2015

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 2

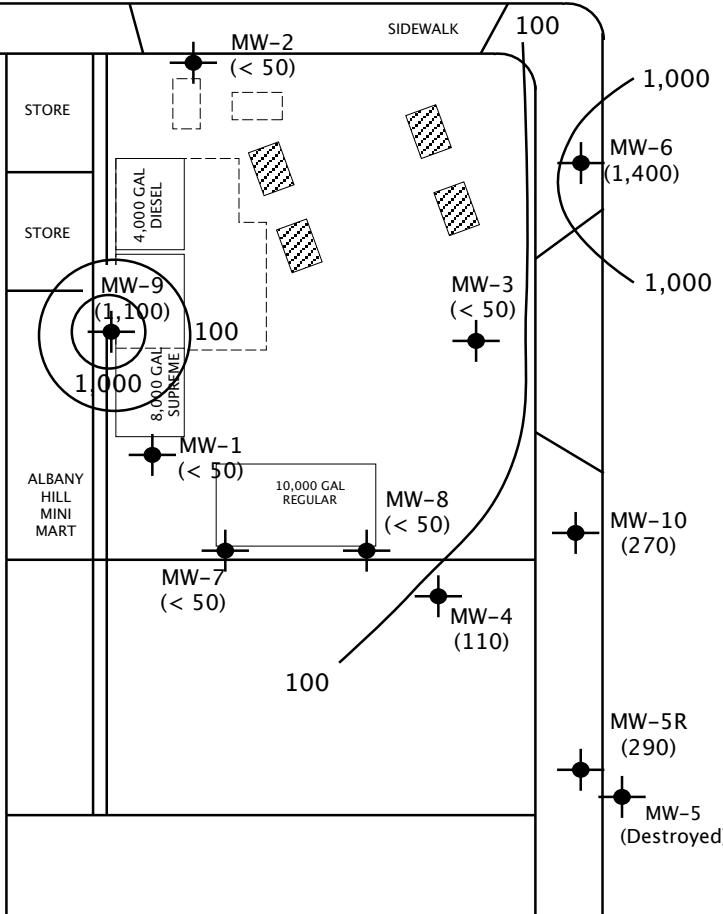


NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SAN PABLO AVENUE



LEGEND

MW-9  
(1,100)  
MONITORING WELL  
WITH TPH-G CONCENTRATION IN PPB

TPH-G CONCENTRATION CONTOUR LINE

APPROXIMATE FORMER UST LOCATION  
AND AREA OF EXCAVATION

TPH-G CONCENTRATION  
CONTOUR MAP  
OCTOBER 7, 2015

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 3

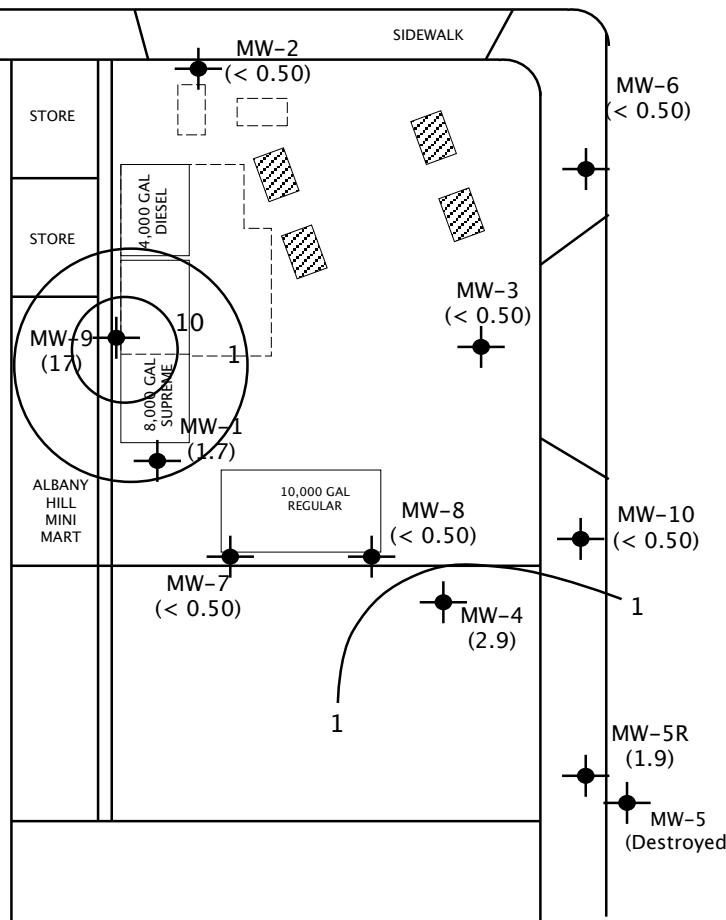


NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SAN PABLO AVENUE



#### LEGEND

MW-9  
(17)  
MONITORING WELL  
WITH BENZENE CONCENTRATION IN PPB

BENZENE CONCENTRATION CONTOUR LINE

APPROXIMATE FORMER UST LOCATION  
AND AREA OF EXCAVATION

BENZENE CONCENTRATION  
CONTOUR MAP  
OCTOBER 7, 2015

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

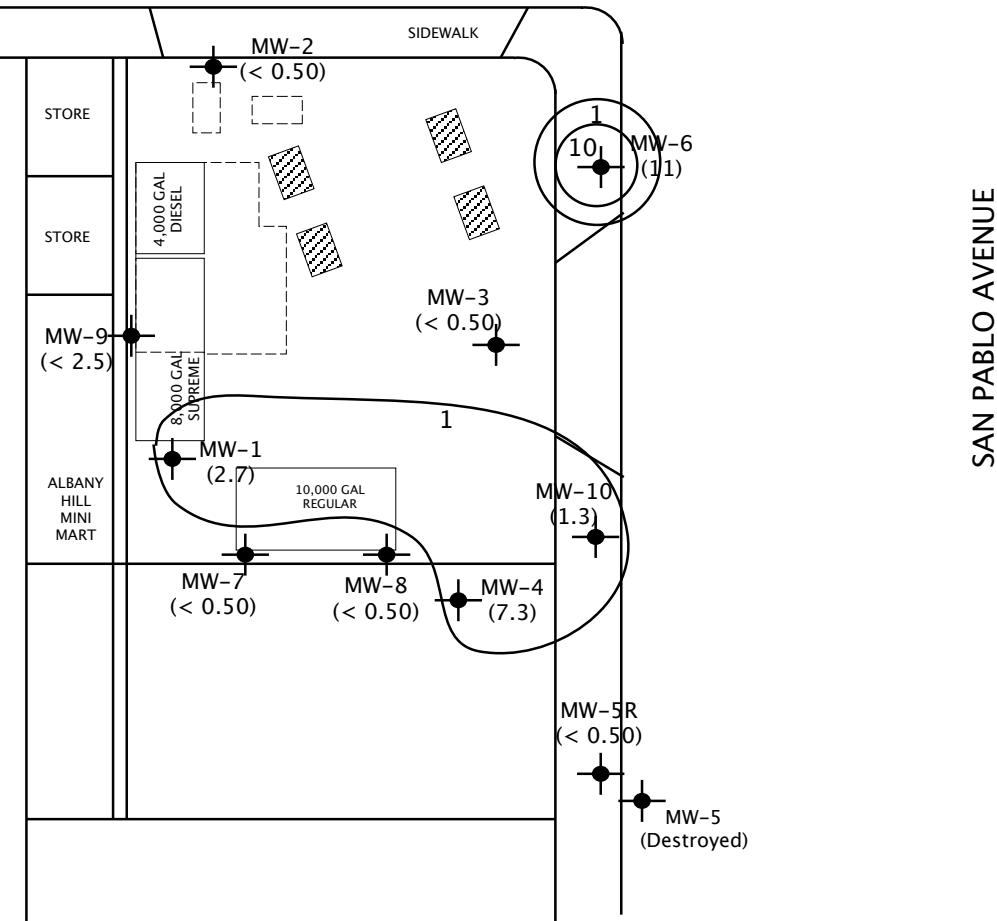
Figure 4



NORTH

SCALE: 1" = 20'

## WASHINGTON AVENUE



## SAN PABLO AVENUE

### LEGEND

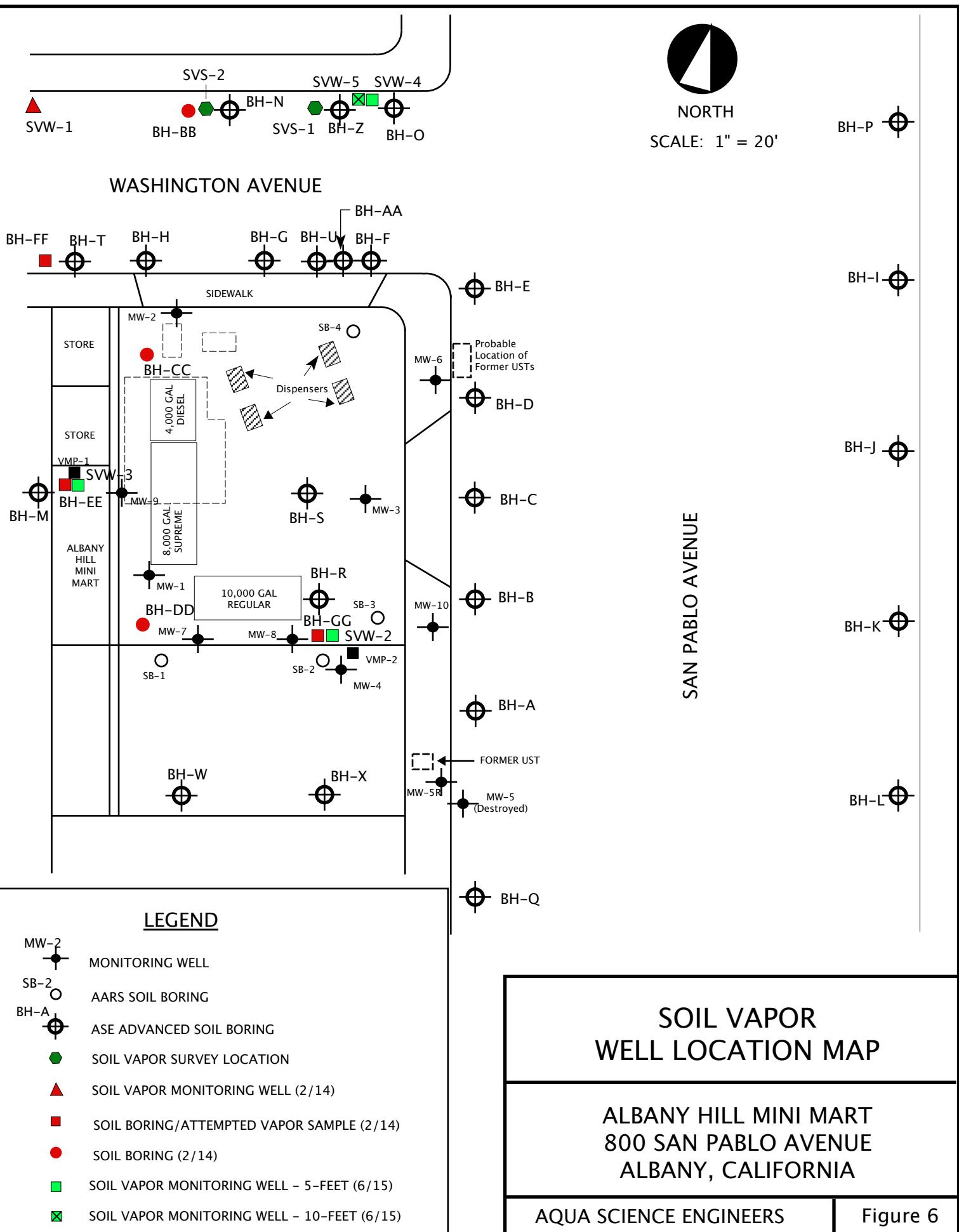
- MW-9 (< 2.5)  
MONITORING WELL  
WITH MTBE CONCENTRATION IN PPB
- MTBE CONCENTRATION CONTOUR LINE
- APPROXIMATE FORMER UST LOCATION  
AND AREA OF EXCAVATION

MTBE CONCENTRATION  
CONTOUR MAP  
OCTOBER 7, 2015

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 5





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)

## 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)
<b>MW-1</b>	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
	11/20/06		12.02	36.80
	2/5/07		11.68	37.14
	5/7/07		10.91	37.91
	8/3/07		12.34	36.48
	12/5/07		12.68	36.14
	2/25/08		9.68	39.14
	5/20/08		12.17	36.65
	8/22/08		13.06	35.76
	12/10/08		13.17	35.65
	3/20/09		10.09	38.73
	6/4/09		11.89	36.93
	12/3/09		12.91	35.91
	5/19/10		10.39	38.43
	12/21/10		10.72	38.10
	6/29/11		11.26	37.56
	12/13/11		12.15	36.67
	9/12/12		12.68	36.14
	3/30/13		11.63	37.19
	9/30/13		13.15	35.67
	3/31/14		10.81	38.01
	12/18/14		10.61	38.21
	3/31/15		12.35	36.47
	6/30/15		12.98	35.84
	<b>10/7/15</b>		<b>14.05</b>	<b>34.77</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-2</b>	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
	5/7/07		9.72	37.99
	8/3/07		11.47	36.24
	12/5/07		11.98	35.73
	2/25/08		8.93	38.78
	5/20/08		11.78	35.93
	8/22/08		12.21	35.50
	12/10/08		11.35	36.36
	3/20/09		9.26	38.45
	6/4/09		11.09	36.62
	12/3/09		11.86	35.85
	5/19/10		9.37	38.34
	12/21/10		9.54	38.17
	6/29/11		10.27	37.44
	12/13/11		11.17	36.54
	9/12/12		11.75	35.96
	3/30/13		10.50	37.21
	9/30/13		12.17	35.54
	3/31/14		9.73	37.98
	12/18/14		9.25	38.46
	3/31/15		11.35	36.36
	6/30/15		11.98	35.73
	<b>10/7/15</b>		<b>13.01</b>	<b>34.70</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-3</b>	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
	5/7/07		9.57	37.92
	8/3/07		11.06	36.43
	12/5/07		11.26	36.23
	2/25/08		8.33	39.16
	5/20/08		10.83	36.66
	8/22/08		11.74	35.75
	12/10/08		11.93	35.56
	3/20/09		8.46	39.03
	6/4/09		10.97	36.52
	12/3/09		11.54	35.95
	5/19/10		9.11	38.38
	12/21/10		9.38	38.11
	6/29/11		10.02	37.47
	12/13/11		10.86	36.63
	9/12/12		8.98	38.51
	3/30/13		10.26	37.23
	9/30/13		11.88	35.61
	3/31/14		9.22	38.27
	12/18/14		9.41	38.08
	3/31/15		11.02	36.47
	6/30/15		11.66	35.83
	<b>10/7/15</b>		<b>12.69</b>	<b>34.80</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-4</b>	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
	5/7/07		9.52	38.09
	8/3/07		11.33	36.28
	12/5/07		11.37	36.24
	2/25/08		8.75	38.86
	5/20/08		11.07	36.54
	8/22/08		11.82	35.79
	12/10/08		12.05	35.56
	3/20/09		9.05	38.56
	6/4/09		10.68	36.93
	12/3/09		11.55	36.06
	5/19/10		9.21	38.40
	12/21/10		9.49	38.12
	6/29/11		9.79	37.82
	12/13/11		10.98	36.63
	9/12/12		11.41	36.20
	3/30/13		10.25	37.36
	9/30/13		11.91	35.70
	3/31/14		9.65	37.96
	12/18/14		Not accessible	
	3/31/15		11.29	36.32
	6/30/15		11.74	35.87
	<b>10/7/15</b>		<b>12.77</b>	<b>34.84</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-5</b>	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		
<b>MW-5R</b>	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
	5/7/07		9.21	38.15
	8/3/07		10.60	36.76
	12/5/07		10.97	36.39
	2/25/08		8.64	38.72
	5/20/08		10.18	37.18
	8/22/08		11.08	36.28
	12/10/08		11.32	36.04
	3/20/09		8.46	38.90
	6/4/09		10.35	37.01
	12/3/09		10.83	36.53
	5/19/10		8.55	38.81
	12/21/10		9.00	38.36
	6/29/11		9.81	37.55
	12/13/11		10.65	36.71
	9/12/12		11.21	36.15
	3/30/13		10.83	36.53
	9/30/13		11.60	35.76
	3/31/14		9.16	38.20
	12/18/14		8.85	38.51
	3/31/15		10.80	36.56
	6/30/15		11.44	35.92
	<b>10/7/15</b>		<b>12.49</b>	<b>34.87</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-6</b>	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
	5/7/07		7.79	38.48
	8/3/07		9.96	36.31
	12/5/07		10.02	36.25
	2/25/08		6.77	39.50
	5/20/08		9.49	36.78
	8/22/08		10.49	35.78
	12/10/08		10.62	35.65
	3/20/09		7.65	38.62
	6/4/09		9.36	36.91
	12/3/09		10.14	36.13
	5/19/10		7.83	38.44
	12/21/10		6.35	39.92
	6/29/11		8.50	37.77
	12/13/11		9.60	36.67
	9/12/12		10.21	36.06
	3/30/13		9.50	36.77
	9/30/13		10.62	35.65
	3/31/14		6.31	39.96
	12/18/14		6.31	39.96
	3/31/15		9.81	36.46
	6/30/15		10.45	35.82
	<b>10/7/15</b>		<b>11.48</b>	<b>34.79</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-7</b>	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
	5/7/07		10.39	37.97
	8/3/07		12.09	36.27
	12/5/07		12.18	36.18
	2/25/08		Bubbling	---
	5/20/08		11.70	36.66
	8/22/08		12.66	35.70
	12/10/08		12.80	35.56
	3/20/09		Bubbling	---
	6/4/09		11.55	36.81
	12/3/09		12.41	35.95
	5/19/10		9.94	38.42
	12/21/10		10.77	37.59
	6/29/11		10.84	37.52
	12/13/11		11.71	36.65
	9/12/12		12.11	36.25
	3/30/13		11.04	37.32
	9/30/13		12.70	35.66
	3/31/14		10.39	37.97
	12/18/14		11.05	37.31
	3/31/15		11.85	36.51
	6/30/15		12.49	35.87
	<b>10/7/15</b>		<b>13.55</b>	<b>34.81</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-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
	11/20/06		11.12	36.87
	2/5/07		10.97	37.02
	5/7/07		9.94	38.05
	8/3/07		11.74	36.25
	12/5/07		11.80	36.19
	2/25/08		8.82	39.17
	5/20/08		11.38	36.61
	8/22/08		12.26	35.73
	12/10/08		12.49	35.50
	3/20/09		9.19	38.80
	6/4/09		11.29	36.70
	12/3/09		12.12	35.87
	5/19/10		9.64	38.35
	12/21/10		10.36	37.63
	6/29/11		10.48	37.51
	12/13/11		11.35	36.64
	9/12/12		11.57	36.42
	3/30/13		10.68	37.31
	9/30/13		12.32	35.67
	3/31/14		10.01	37.98
	12/18/14		11.00	36.99
	3/31/15		11.50	36.49
	6/30/15		12.12	35.87
	<b>10/7/15</b>		<b>13.17</b>	<b>34.82</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
	8/24/06		11.91	37.33
	11/20/06		12.42	36.82
	2/5/07		11.95	37.29
	5/7/07		11.20	38.04
	8/3/07		12.67	36.57
	12/5/07		12.96	36.28
	2/25/08		10.71	38.53
	5/20/08		12.15	37.09
	8/22/08		13.18	36.06
	12/10/08		13.32	35.92
	3/20/09		11.39	37.85
	6/4/09		11.82	37.42
	12/3/09		12.93	36.31
	5/19/10		10.26	38.98
	12/21/10		11.66	37.58
	6/29/11		11.50	37.74
	12/13/11		12.38	36.86
	9/12/12		13.00	36.24
	3/30/13		12.05	37.19
	9/30/13		13.36	35.88
	3/31/14		11.80	37.44
	12/18/14		11.74	37.50
	3/31/15		12.42	36.82
	6/30/15		13.27	35.97
	<b>10/7/15</b>		<b>14.32</b>	<b>34.92</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-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
	2/5/07		9.83	37.07
	5/7/07		8.85	38.05
	8/3/07		11.00	35.90
	12/5/07		10.64	36.26
	2/25/08		8.03	38.87
	5/20/08		10.58	36.32
	8/22/08		11.48	35.42
	12/10/08		11.68	35.22
	3/20/09		8.83	38.07
	6/4/09		10.00	36.90
	12/3/09		11.16	35.74
	5/19/10		8.87	38.03
	12/21/10		8.67	38.23
	6/29/11		9.44	37.46
	12/13/11		10.25	36.65
	9/12/12		9.61	37.29
	3/30/13		9.57	37.33
	9/30/13		11.20	35.70
	3/31/14		8.82	38.08
	12/18/14		8.71	38.19
	3/31/15		10.41	36.49
	6/30/15		11.03	35.87
	<b>10/7/15</b>		<b>12.06</b>	<b>34.84</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
	5/7/07	500	< 50	200	0.64	12	0.72	< 0.50	< 5.0	210	< 0.50
	8/3/07	930	< 80	300	2.8	49	6.8	< 0.50	7.1	160	< 0.50
	12/5/07	560	< 50	150	37	9.8	46	< 0.50	< 5.0	100	< 0.50
	2/25/08	1,000	100	340	11	14	23	< 0.50	11	170	< 0.50
	5/20/08	740	< 50	220	3.2	7.5	6.9	< 0.50	23	170	0.68 DIPE
	8/22/08	190	< 50	52	1.2	7.3	4.6	< 0.50	11	160	0.60 DIPE
	12/10/08	98	< 50	18	< 0.50	3.2	0.89	< 0.50	< 5.0	74	< 0.50
	3/20/09	61	< 50	1.8	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	65	< 0.50
	6/4/09	< 50	< 50	5.5	< 0.50	0.63	< 0.50	< 0.50	< 5.0	71	< 0.50
	12/3/09	75	< 50	2.8	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	30	< 0.50
	5/19/10	75	< 50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	47	< 0.50
	12/21/10	< 50	< 50	0.86	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	19	< 0.50
	6/29/11	68	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	20	< 0.50
	12/13/11	< 50	< 50	2.4	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	20	< 0.50
	9/12/12	< 50	---	2.9	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	13	< 0.50
	3/30/13	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	13	< 0.50
	9/30/13	< 50	< 50	0.67	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	8.1	< 0.50
	3/31/14	< 50	---	1.5	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	5.8	< 0.50
	12/18/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	3.4	< 0.50
	3/31/15	< 50	---	0.77	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	4.8	< 0.50
	6/30/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	2.2	< 0.50
	10/7/15	< 50	84	1.7	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	2.7	< 0.50

**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-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
	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
	5/7/07	< 90	< 50	22	< 0.90	< 0.90	< 0.90	< 0.90	6.0	450	< 0.90
	8/3/07	< 50	< 50	2.2	< 0.50	< 0.50	< 0.50	< 0.50	9.0	240	< 0.50
	12/5/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	37	82	< 0.50
	2/25/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	10	< 0.50
	5/20/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.71	< 0.50
	8/22/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.71	< 0.50
	12/10/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/20/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	6/4/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/3/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	5/19/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/21/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	6/29/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/13/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/12/12	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/30/13	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/30/13	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/18/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	6/30/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	10/7/15	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50

**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-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
	5/25/07	240	< 50	52	4.3	4.3	18	4.3	140	1,100	< 2.0
	8/3/07	500	< 50	190	7.2	12	40	4.4	320	860	< 1.5
	12/5/07	< 150	< 50	< 1.5	< 1.5	< 1.5	< 1.5	5.1	280	1,200	< 1.5
	2/25/08	< 200	< 50	< 2.0	< 2.0	< 2.0	< 2.0	5.0	13	1,300	< 2.0
	5/20/08	< 50	< 50	2.5	< 0.50	< 0.50	< 0.50	< 0.50	6.7	200	0.54 DIPE
	8/22/08	< 50	< 50	1.5	< 0.50	< 0.50	< 0.50	0.64	6.9	380	< 0.50
	12/10/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	7.2	< 0.50
	3/20/09	< 50	< 50	0.61	< 0.50	< 0.50	< 0.50	< 0.50	7.7	14	< 0.50
	6/4/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	< 0.50
	12/3/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	5/19/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	26	< 0.50
	12/21/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	6/29/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.9	< 0.50
	12/13/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/12/12	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/30/13	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/30/13	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/18/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	6/30/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	10/7/15	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50

**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)
	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
	5/7/07	2,900	< 200	1,200	5.0	89	95	< 1.5	18	34	< 1.5
	8/3/07	1,800	< 200	610	3.4	36	25	0.62	9.3	25	1.4 DIPE
	12/5/07	1,300	< 200	530	3.4	3.4	20	< 0.90	6.0	32	0.98 DIPE
	2/25/08	800	< 50	180	6.0	15	35	< 0.50	30	44	0.76 DIPE
	5/20/08	560	< 50	130	3.6	5.7	14	< 0.50	21	34	0.85 DIPE
	8/22/08	110	< 50	7.3	< 0.50	< 0.50	0.79	< 0.50	12	28	1.0 DIPE
	12/10/08	190	< 50	38	0.53	2.7	1.8	< 0.50	6.6	20	0.76 DIPE
	3/20/09	86	< 50	8.7	< 0.50	1.1	3.6	< 0.50	< 5.0	14	0.73 DIPE
	6/4/09	160	< 50	28	< 0.50	1.5	1.9	< 0.50	< 5.0	12	0.72 DIPE
	12/3/09	280	< 50	46	0.61	0.93	1.9	< 0.50	< 5.0	12	0.65 DIPE
	5/19/10	200	< 50	20	< 0.50	< 0.50	< 0.50	< 0.50	9.3	13	0.94 DIPE
	12/21/10	200	< 50	32	< 0.50	1.1	3.3	< 0.50	< 5.0	9.5	0.64 DIPE
	6/29/11	120	< 50	13	< 0.50	< 0.50	< 0.50	< 0.50	6.7	9.8	0.85 DIPE
	12/13/11	520	< 80	92	0.96	1.1	1.7	< 0.50	7.8	14	1.1 DIPE
	9/12/12	350	---	51	0.76	0.94	2.0	< 0.50	< 5.0	9.8	0.76 DIPE
	3/30/13	86	---	7.3	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	8.1	0.55 DIPE
	9/30/13	130	< 50	17	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	8.8	0.63 DIPE
	3/31/14	53	---	3.5	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.55	< 0.50
	12/18/14							Not Sampled - Car Parked Over Well			
	3/31/15	170	---	25	< 1.2	< 1.2	< 1.2	< 1.2	< 5.0	5.8	< 1.2
	6/30/15	200	---	28	< 0.50	< 0.50	< 0.50	< 0.50	2.2	7.7	0.53 DIPE
	10/7/15	110	< 50	2.9	< 0.50	< 0.50	< 0.50	< 0.50	2.5	7.3	< 0.50

**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-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
	5/7/07	5,600	< 500	61	2.4	510	19	< 0.90	11	< 0.90	< 0.90
	8/3/07	170	< 50	3.7	< 0.50	< 0.50	< 0.50	1.4	9.2	330	< 0.50
	12/5/07	4,500	< 800	32	1.3	240	10	< 0.50	< 5.0	< 0.50	< 0.50
	2/25/08	6,000	< 600	41	1.7	310	13	< 0.50	5.6	< 0.50	< 0.50
	5/20/08	220	< 50	2.4	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	37	< 0.50
	8/22/08	91	< 50	< 0.50	< 0.50	< 0.50	< 0.50	0.57	< 5.0	100	< 0.50
	12/10/08	140	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	41	< 0.50
	3/20/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	8.8	< 0.50
	6/4/09	4,300	<800	35	2.2	130	5.7	< 0.50	< 5.0	6.9	< 0.50
	12/3/09	55	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	13	< 0.50
	5/19/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.2	< 0.50
	12/21/10	2,700	< 50	16	1.4	29	1.6	< 0.50	< 5.0	< 0.50	< 0.50
	6/29/11	1,900	< 300	12	1.1	6.0	0.85	< 0.50	< 5.0	< 0.50	< 0.50
	12/13/11	3,200	< 400	15	1.2	10	1.3	< 0.50	< 5.0	< 0.50	< 0.50
	9/12/12	3,400	---	23	1.7	2.8	1.4	< 0.50	< 5.0	< 0.50	< 0.50
	3/30/13	2,200	---	5.7	0.85	4.2	0.62	< 0.50	< 5.0	< 0.50	< 0.50
	9/30/13	2,000	< 50	13	0.97	5.1	0.82	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/14	3,200	---	22	1.4	12	1.2	< 0.50	< 5.0	< 0.50	< 0.50
	12/18/14	3,000	---	19	1.5	18	1.3	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/15	1,900	---	10	0.86	2.1	1.0	< 0.50	< 2.0	< 0.50	< 0.50
	6/30/15	1,800	---	1.9	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	10/7/15	290	51	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50

**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-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
	5/7/07	290	< 50	3.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.0	< 0.50
	8/3/07	580	< 80	23	1.0	< 0.50	< 0.50	0.57	34	45	< 0.50
	12/5/07	870	< 800	2.8	< 0.50	< 0.50	< 0.50	0.58	20	54	< 0.50
	2/25/08	1,400	< 500	16	0.73	< 0.50	9.6	< 0.50	19	77	< 0.50
	5/20/08	1,600	< 200	42	2.0	< 0.50	1.1	0.72	59	58	< 0.50
	8/22/08	520	< 300	3.2	< 0.50	< 0.50	< 0.50	0.62	47	70	< 0.50
	12/10/08	1,000	< 6,000	0.53	< 0.50	< 0.50	< 0.50	< 0.50	24	21	< 0.50
	3/20/09	700	< 500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.9	< 0.50
	6/4/09	160	< 1, 500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10	18	< 0.50
	12/3/09	750	< 1, 500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	4.4	< 0.50
	5/19/10	210	< 200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.8	< 0.50
	12/21/10	130	< 400	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	6/29/11	390	< 200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.5	< 0.50
	12/13/11	94	< 100	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	18	< 0.50
	9/12/12	270	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	13	< 0.50
	3/30/13	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/30/13	300	850*	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/18/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	5.8	< 0.50
	6/30/15	330	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	1.2	< 0.50
	10/7/15	1,400	560*	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.5	11	< 0.50

**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-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
	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
	5/7/07	490	< 80	190	0.61	9.3	3.2	0.55	16	200	< 0.50
	8/3/07	2,100	< 200	390	2.4	94	73	0.61	19	220	0.51 DIPE
	12/5/07	140	< 50	7.2	0.67	3.0	18	0.98	150	180	< 0.50
	2/25/08	< 50	< 50	0.98	< 0.50	0.69	2.4	< 0.50	< 5.0	100	< 0.50
	5/20/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	1.3	< 0.50
	8/22/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/10/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/20/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	6/4/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/3/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	5/19/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.55	< 0.50
	12/21/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	6/29/11	180	< 80	< 0.50	< 0.50	2.8	14	< 0.50	< 5.0	< 0.50	< 0.50
	12/13/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/12/12	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/30/13	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/30/13	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/18/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	6/30/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	10/7/15	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50

**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-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
	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
	5/7/07	510	< 50	170	0.61	2.1	5.4	0.57	460	110	< 0.50
	8/3/07	840	< 80	240	1.6	7.0	18	< 0.50	100	100	< 0.50
	12/5/07	1,400	< 300	9.2	3.9	36	310	1.5	210	370	< 0.50
	2/25/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	130	< 0.50
	5/20/08	< 50	< 50	< 0.50	< 0.50	< 0.50	1.5	< 0.50	< 5.0	6.1	< 0.50
	8/22/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/10/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/20/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	6/4/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/3/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	5/19/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/21/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	6/29/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/13/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/12/12	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/30/13	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	9/30/13	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	12/18/14	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	6/30/15	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50
	10/7/15	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50

**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	4,500	< 400	370	120	190	720	< 1.0	< 5.0	< 1.0	< 1.0
	5/7/07	6,400	< 300	700	220	380	1,200	< 1.0	< 5.0	< 1.0	< 1.0
	8/3/07	5,300	< 300	380	140	290	830	< 0.90	< 5.0	< 0.90	< 0.90
	12/5/07	4,100	< 300	250	84	130	990	< 1.0	< 5.0	< 1.0	< 1.0
	2/25/08	2,600	< 300	250	20	120	290	< 0.50	< 5.0	< 0.50	< 0.50
	5/20/08	3,000	< 200	320	39	170	390	< 0.50	< 5.0	0.51	< 0.50
	8/22/08	3,700	< 600	220	68	190	610	< 0.50	< 5.0	0.72	< 0.50
	12/10/08	4,100	< 300	240	80	250	840	< 0.50	< 5.0	< 0.50	< 0.50
	3/20/09	1,800	< 200	170	22	81	250	< 0.50	< 5.0	< 0.50	< 0.50
	6/4/09	2,600	< 200	260	35	110	410	< 0.50	< 5.0	< 0.50	< 0.50
	12/3/09	5,200	< 300	260	63	320	970	< 0.50	< 5.0	< 0.50	< 0.50
	5/19/10	3,000	< 300	190	23	120	490	< 0.90	< 5.0	< 0.90	< 0.90
	12/21/10	4,900	< 300	200	35	260	1,000	< 0.90	< 5.0	< 0.90	< 0.90
	6/29/11	3,400	< 300	140	20	160	800	< 0.90	< 5.0	< 0.90	< 0.90
	12/13/11	7,300	< 400	170	32	340	1,600	< 0.50	< 5.0	< 0.50	< 0.50
	9/12/12	5,400	---	76	16	210	750	< 0.90	5.0	< 0.90	< 0.90
	3/30/13	3,400	---	46	8.2	130	500	< 0.50	< 5.0	< 0.50	< 0.50
	9/30/13	4,200	< 50	69	12	170	630	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/14	3,700	---	63	8.0	140	480	< 0.50	< 5.0	< 0.50	< 0.50
	12/18/14	3,100	---	45	6.3	120	420	< 0.50	< 5.0	< 0.50	< 0.50
	3/31/15	970	---	36	3.0	67	270	< 0.50	< 5.0	< 0.50	47 Naphthalene
	6/30/15	1,500	---	41	< 5.0	110	160	< 0.50	< 5.0	< 0.50	33 Naphthalene
	10/7/15	1,100	160*	17	< 2.5	78	43	< 2.5	< 10	< 2.5	17 Naphthalene

**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
<b>MW-10</b>	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
	5/7/07	96	< 50	2.3	< 0.50	< 0.50	< 0.50	0.83	< 5.0	180	< 0.50
	8/3/07	5,000	< 1,000	67	2.3	410	14	< 0.50	6.7	< 0.50	< 0.50
	12/5/07	310	< 50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
	2/25/08	240	240	5.3	< 0.50	< 0.50	< 0.50	< 0.50	9.3	57	< 0.50
	5/20/08	3,400	< 500	23	1.2	120	5.9	< 0.50	< 5.0	< 0.50	< 0.50
	8/22/08	1,900	< 500	22	0.89	3.8	2.1	< 0.50	5.1	< 0.50	< 0.50
	12/10/08	3,500	< 500	40	2.0	190	7.8	< 0.50	< 5.0	< 0.50	< 0.50
	3/20/09	4,100	< 600	40	1.7	150	5.8	< 0.50	5.9	< 0.50	< 0.50
	6/4/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	34	< 0.50	< 0.50
	12/3/09	4,500	< 800	36	2.5	140	4.3	< 0.50	< 5.0	< 0.50	< 0.50
	5/19/10	3,600	< 600	19	2.3	120	3.3	< 0.50	< 5.0	< 0.50	< 0.50
	12/21/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	7.2	< 0.50
	6/29/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.0	< 0.50
	12/13/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	3.5	< 0.50
	9/12/12	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.6	< 0.50
	3/30/13	< 50	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.67	< 0.50
	9/30/13	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	1.4	< 0.50
	3/31/14	120	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	1.5	< 0.50
	12/18/14	280	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.2	< 0.50
	3/31/15	130	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	1.5	< 0.50
	6/30/15	150	---	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	2.1	< 0.50
	<b>10/7/15</b>	<b>270</b>	<b>&lt; 100</b>	<b>&lt; 0.50</b>	<b>&lt; 0.50</b>	<b>&lt; 0.50</b>	<b>&lt; 0.50</b>	<b>&lt; 0.50</b>	<b>&lt; 2.0</b>	<b>1.3</b>	<b>&lt; 0.50</b>
<b>ESL</b>		<b>100</b>	<b>100</b>	<b>1.0</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>NE</b>	<b>12</b>	<b>5.0</b>	<b>Varies</b>

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 (May 2008)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region for sites where groundwater is a current or potential source of

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.

**TABLE THREE**  
 Summary of Analytical Results of Soil Vapor Samples  
 Petroleum Hydrocarbons, Atmospheric Gases and Helium  
 Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, California

Sample Location	Depth (ft)	Sample Date Sampled	TPH Gasoline (ug/m3)	Benzene (ug/m3)	Toluene (ug/m3)	Ethyl Benzene (ug/m3)	m,p-Xylenes (ug/m3)	<sup>o'</sup> Xylenes (ug/m3)	Total Xylenes (ug/m3)	Naphthalene (ug/m3)	TBA (ug/m3)	Oxygen (%)	Nitrogen (%)	Carbon Dioxide (%)	Methane (%)	Helium (%)
SVS-1	5	8/2/12	<b>24,000</b>	<b>12</b>	<b>86</b>	< 8.7	<b>28</b>	<b>9.4</b>	---	---	---	16	84	0.42	<b>0.0037</b>	< 0.34
SVS-2	5	8/2/12	<b>1,100,000</b>	<b>440</b>	<b>55</b>	< 37	< 37	< 37	---	---	---	18	81	0.24	<b>0.51</b>	< 0.086
VMP-1	1.5	8/2/12	<b>970</b>	< 2.7	< 3.2	< 3.6	< 3.6	< 3.6	---	---	---	21	79	0.14	< 0.00029	< 0.15
VMP-2	1.5	8/2/12	<b>950</b>	< 2.5	< 2.9	< 3.4	< 3.4	< 3.4	---	---	---	16	79	5.0	< 0.00026	< 0.13
SVW-1	5	2/25/14	<b>11,000</b>	<b>20</b>	<b>120</b>	<b>20</b>	<b>71</b>	<b>20</b>	---	< 10	20	80	0.42	<b>0.036</b>	< 0.12	
	5	7/1/15														
	5	10/7/15	<b>1,300</b>	<b>4.1</b>	<b>12</b>	< 2.8	---	---	<b>13</b>	<b>9.2</b>	< 39	10	---	<b>3.6</b>	<b>0.0015</b>	< 0.063
SVW-2	5	6/30/15	<b>8,500</b>	<b>74</b>	<b>180</b>	<b>60</b>	---	---	<b>170</b>	< 7.0	< 41	<b>40</b>	---	0.11	<b>0.00049</b>	<b>0.060</b>
SVW-3	5	6/30/15	<b>3,100</b>	<b>27</b>	<b>120</b>	<b>35</b>	---	---	<b>190</b>	< 5.3	<b>43</b>	<b>15</b>	---	0.080	<b>0.00022</b>	<b>1.7</b>
SVW-4	5	6/30/15	<b>11,000</b>	<b>17</b>	<b>41</b>	<b>49</b>	---	---	<b>390</b>	< 11	< 62	<b>30</b>	---	0.52	<b>0.011</b>	< 0.050
SVW-5	10	6/30/15	<b>190,000</b>	<b>12,000</b>	<b>210</b>	<b>320</b>	---	---	< 150	< 120	< 720	<b>35</b>	---	0.15	<b>0.0053</b>	< 0.050
	10	10/7/15	<b>4,700,000</b>	<b>20,000</b>	< 1,700	10,000	---	---	< 1700	< 1700	< 17,000	<b>3.8</b>	---	<b>3.1</b>	<b>0.074</b>	< 1.7
ESL (Residential)			300,000	42	16,000	490	52,000	52,000	52000	36	NE	NE	NE	NE	NE	NE
ESL (Commercial)			2,500,000	420	1,300,000	4,900	440,000	440,000	440000	360	NE	NE	NE	NE	NE	NE
<u>Low-Risk Soil Gas Criteria (With bioattenuation zonel)</u>																
Residential			NE	85,000	NE	280,000	NE	NE	NE	93,000	NE	NE	NE	NE	NE	NE
Commercial			NE	280,000	NE	3,600,000	NE	NE	NE	310,000	NE	NE	NE	NE	NE	NE

Notes:

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

Detectable concentrations in **BOLD**

ESL = Environmental Screening Levels 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 (RWQCB) dated December 2013.

Low-Risk Soil Gas Criteria is from Appendix 4, Scenario 4 - Direct Measurement of Soil Gas Concentrations with Bioattenuation zone from the State Water Resources Control Board, Low-Threat Underground Storage Tank Case Closure Policy, 2012.

NE = Not established



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 A**

### Well Sampling Field Logs

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW-1	SAMPLER	RK DA
TOTAL DEPTH OF WELL	24.2	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	14.05	TIME OF MEASUREMENT	
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	10.15		
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	4.8		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	1335	TIME EVACUATION COMPLETED	1350
TIME SAMPLES WERE COLLECTED	1405		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	-
VOLUME OF GROUNDWATER PURGED	5		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	LT GRAY	ODOR/SEDIMENT	N.S./SC

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	19.1	6.9	1150
2	19.1	6.8	1170
3	19.0	6.8	1160

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-1	5	40ml vials	8015/8260	HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW-2	SAMPLER	RE DA
TOTAL DEPTH OF WELL	24.8	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	13.0	TIME OF MEASUREMENT	
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	11.79		
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	5.6		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	1425	TIME EVACUATION COMPLETED	1440
TIME SAMPLES WERE COLLECTED	1445		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	-
VOLUME OF GROUNDWATER PURGED	5.6		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	LT BROWN	ODOR/SEDIMENT	NO/SC

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	20.0	7.1	720
2	20.1	7.0	700
3	20.2	7.1	710

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-2	5	40ml vials	8018/8260	HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW-3	SAMPLER	PK DA
TOTAL DEPTH OF WELL	23.8	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	12.69	TIME OF MEASUREMENT	
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	11.11		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.7		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	5.3		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
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	5.3		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	LT BLW	ODOR/SEDIMENT	NO/SL

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	20.7	6.8	620
2	20.8	6.9	630
3	20.9	6.8	640

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-3	5	40ml vials	8015/8260	HeL

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW - 4	SAMPLER	RE DA
TOTAL DEPTH OF WELL	24.5	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	12.77	TIME OF MEASUREMENT	
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	11.73		
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		5.7	
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	12:45	TIME EVACUATION COMPLETED	1700
TIME SAMPLES WERE COLLECTED	13:10		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED		5.7	
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	LT GRAY	ODOR/SEDIMENT	NO/SC

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	20.3	7.1	660
2	20.4	7.2	650
3	20.4	7.2	660

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-4	5	40ml vials	8015/8260	HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	AUBURN HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW - 5R	SAMPLER	RE DA
TOTAL DEPTH OF WELL	19.58	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	12.49	TIME OF MEASUREMENT	
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	7.09		
NUMBER OF GALLONS PER WELL CASING VOLUME		1.13	
NUMBER OF WELL CASING VOLUMES TO BE REMOVED		3	
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING		3.4	
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	0825	TIME EVACUATION COMPLETED	0835
TIME SAMPLES WERE COLLECTED	0840		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	
VOLUME OF GROUNDWATER PURGED		3.4	
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	LT GRAY	ODOR/SEDIMENT	SL HC / SL

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	21.4	6.1	900
2	21.5	6.0	950
3	24.6	6.1	950

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW- 5R	5	40ml vials	8015/8260	HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW-6	SAMPLER	RK DT
TOTAL DEPTH OF WELL	24.7	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	11.48	TIME OF MEASUREMENT	
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	13.22		
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	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	0945	TIME EVACUATION COMPLETED	1000
TIME SAMPLES WERE COLLECTED	1001		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	-
VOLUME OF GROUNDWATER PURGED	6.3		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	LT BROWN	ODOR/SEDIMENT	NO/SL

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	21.1	6.7	960
2	21.3	6.8	960
3	21.3	6.7	950

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-6	5	40ml vials	8015/8260	HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW-7	SAMPLER	RK DA
TOTAL DEPTH OF WELL	24.7	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	13.55	TIME OF MEASUREMENT	
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	11.15		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.8		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	5.4		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	1100	TIME EVACUATION COMPLETED	1115
TIME SAMPLES WERE COLLECTED	1120		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	
VOLUME OF GROUNDWATER PURGED	54		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	LT BROWN	ODOR/SEDIMENT	No SL

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	19.8	7.1	650
2	19.9	7.2	660
3	19.4	7.1	660

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-7	5	40ml vials	8018/8260	HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW-8	SAMPLER	RK DA
TOTAL DEPTH OF WELL	19.1	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	13.17	TIME OF MEASUREMENT	
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	5.93		
NUMBER OF GALLONS PER WELL CASING VOLUME	.94		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	28		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	10:00	TIME EVACUATION COMPLETED	10:30
TIME SAMPLES WERE COLLECTED	10:35		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	
VOLUME OF GROUNDWATER PURGED	3		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	Lt Brown	ODOR/SEDIMENT	No/SC

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	19.4	7.2	410
2	19.5	7.3	400
3	19.5	7.2	400

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-8	5	40ml vials	8018/8260	Hg

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW - 9	SAMPLER	PK DA
TOTAL DEPTH OF WELL	16.8	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	14.32	TIME OF MEASUREMENT	
PRODUCT THICKNESS	<del>0</del>		
DEPTH OF WELL CASING IN WATER	2.48		
NUMBER OF GALLONS PER WELL CASING VOLUME	4		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	1.2		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	0805	TIME EVACUATION COMPLETED	0810
TIME SAMPLES WERE COLLECTED	1510		
DID WELL GO DRY	Y	AFTER HOW MANY GALLONS	1
VOLUME OF GROUNDWATER PURGED	1		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	CLEAR	ODOR/SEDIMENT	MILD HCl NO

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	20.9	7.1	690
2	20.9	7.1	700
3			

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-9	5	40ml vials	8018/8260	HCl

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	ALBANY HILL MINI MART		
JOB NUMBER	3934	DATE OF SAMPLING	10-7-15
WELL ID.	MW-10	SAMPLER	RK DA
TOTAL DEPTH OF WELL	24.7	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	12.06	TIME OF MEASUREMENT	
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	12.64		
NUMBER OF GALLONS PER WELL CASING VOLUME	2		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	6		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	0900	TIME EVACUATION COMPLETED	0915
TIME SAMPLES WERE COLLECTED	0920		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	
VOLUME OF GROUNDWATER PURGED	6		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	LT BROWN	ODOR/SEDIMENT	NO / SL

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	20.8	6.6	1200
2	20.9	6.7	1240
3	20.9	6.7	1260

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-10	5	40ml vials	8015/8260	HCl



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  
For Groundwater Samples



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1510300

**Report Created for:** Aqua Science Engineers, Inc.

55 Oak Court Suite 220  
Danville, CA 94526

**Project Contact:** Dave Allen

**Project P.O.:**

**Project Name:** 3934; AHMM

**Project Received:** 10/08/2015

Analytical Report reviewed & approved for release on 10/15/2015 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** Aqua Science Engineers, Inc.  
**Project:** 3934; AHMM  
**WorkOrder:** 1510300

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Glossary of Terms & Qualifier Definitions

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

**Project:** 3934; AHMM

**WorkOrder:** 1510300

### **Analytical Qualifiers**

a3 sample diluted due to high organic content.

b1 aqueous sample that contains greater than ~1 vol. % sediment

e2 diesel range compounds are significant; no recognizable pattern

e4 gasoline range compounds are significant.

e11 stoddard solvent/mineral spirit (?)



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1510300-001B	Water	10/07/2015 14:05	GC10	111435

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	50	1	10/12/2015 12:41
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	101	70-130		10/12/2015 12:41
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1510300-002B	Water	10/07/2015 14:45	GC28	111435

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	50	1	10/13/2015 16:00
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	85	70-130		10/13/2015 16:00
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1510300-003B	Water	10/07/2015 12:20	GC10	111435

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	50	1	10/12/2015 21:15
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	98	70-130		10/12/2015 21:15
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4	1510300-004B	Water	10/07/2015 13:10	GC10	111435

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	110	50	1	10/12/2015 21:56
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	96	70-130		10/12/2015 21:56
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			

(Cont.)



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5R	1510300-005B	Water	10/07/2015 08:40	GC28	111435

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	290	50	1	10/13/2015 16:39
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	82	70-130		10/13/2015 16:39
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1510300-006B	Water	10/07/2015 10:05	GC10	111435

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	1400	50	1	10/12/2015 23:18
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	98	70-130		10/12/2015 23:18
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1510300-007B	Water	10/07/2015 11:20	GC10	111435

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	50	1	10/12/2015 23:59
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	99	70-130		10/12/2015 23:59
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1510300-008B	Water	10/07/2015 10:35	GC10	111435

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	50	1	10/13/2015 00:40
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	100	70-130		10/13/2015 00:40
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			

(Cont.)



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-9	1510300-009B	Water	10/07/2015 15:10	GC10	111435

Analyses	Result	RL	DF	Date Analyzed
TPH(g)	1100	50	1	10/13/2015 01:21

Surrogates	REC (%)	Limits		
Dibromofluoromethane	97	70-130		10/13/2015 01:21

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1510300-010B	Water	10/07/2015 09:20	GC10	111435

Analyses	Result	RL	DF	Date Analyzed
TPH(g)	270	50	1	10/13/2015 02:03

Surrogates	REC (%)	Limits		
Dibromofluoromethane	99	70-130		10/13/2015 02:03

Analyst(s): KF

Analytical Comments: b1



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1510300-001B	Water	10/07/2015 14:05	GC10	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/12/2015 12:41
Benzene	1.7		0.50	1	10/12/2015 12:41
t-Butyl alcohol (TBA)	ND		2.0	1	10/12/2015 12:41
Diisopropyl ether (DIPE)	ND		0.50	1	10/12/2015 12:41
Ethylbenzene	ND		0.50	1	10/12/2015 12:41
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/12/2015 12:41
Methyl-t-butyl ether (MTBE)	2.7		0.50	1	10/12/2015 12:41
Naphthalene	ND		0.50	1	10/12/2015 12:41
Toluene	ND		0.50	1	10/12/2015 12:41
Xylenes, Total	ND		0.50	1	10/12/2015 12:41
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	90		70-130		10/12/2015 12:41
Toluene-d8	81		70-130		10/12/2015 12:41
4-BFB	94		70-130		10/12/2015 12:41

Analyst(s): KF

Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1510300-002B	Water	10/07/2015 14:45	GC10	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/12/2015 13:22
Benzene	ND		0.50	1	10/12/2015 13:22
t-Butyl alcohol (TBA)	ND		2.0	1	10/12/2015 13:22
Diisopropyl ether (DIPE)	ND		0.50	1	10/12/2015 13:22
Ethylbenzene	ND		0.50	1	10/12/2015 13:22
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/12/2015 13:22
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/12/2015 13:22
Naphthalene	ND		0.50	1	10/12/2015 13:22
Toluene	ND		0.50	1	10/12/2015 13:22
Xylenes, Total	ND		0.50	1	10/12/2015 13:22
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	85		70-130		10/12/2015 13:22
Toluene-d8	81		70-130		10/12/2015 13:22
4-BFB	91		70-130		10/12/2015 13:22

Analyst(s): KF

Analytical Comments: b1

(Cont.)



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1510300-003B	Water	10/07/2015 12:20	GC10	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/12/2015 21:15
Benzene	ND		0.50	1	10/12/2015 21:15
t-Butyl alcohol (TBA)	ND		2.0	1	10/12/2015 21:15
Diisopropyl ether (DIPE)	ND		0.50	1	10/12/2015 21:15
Ethylbenzene	ND		0.50	1	10/12/2015 21:15
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/12/2015 21:15
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/12/2015 21:15
Naphthalene	ND		0.50	1	10/12/2015 21:15
Toluene	ND		0.50	1	10/12/2015 21:15
Xylenes, Total	ND		0.50	1	10/12/2015 21:15
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	87		70-130		10/12/2015 21:15
Toluene-d8	84		70-130		10/12/2015 21:15
4-BFB	93		70-130		10/12/2015 21:15

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4	1510300-004B	Water	10/07/2015 13:10	GC10	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/12/2015 21:56
Benzene	<b>2.9</b>		0.50	1	10/12/2015 21:56
t-Butyl alcohol (TBA)	<b>2.5</b>		2.0	1	10/12/2015 21:56
Diisopropyl ether (DIPE)	ND		0.50	1	10/12/2015 21:56
Ethylbenzene	ND		0.50	1	10/12/2015 21:56
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/12/2015 21:56
Methyl-t-butyl ether (MTBE)	<b>7.3</b>		0.50	1	10/12/2015 21:56
Naphthalene	ND		0.50	1	10/12/2015 21:56
Toluene	ND		0.50	1	10/12/2015 21:56
Xylenes, Total	ND		0.50	1	10/12/2015 21:56
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	85		70-130		10/12/2015 21:56
Toluene-d8	81		70-130		10/12/2015 21:56
4-BFB	93		70-130		10/12/2015 21:56

Analyst(s): KF

Analytical Comments: b1

(Cont.)



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5R	1510300-005B	Water	10/07/2015 08:40	GC28	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/13/2015 16:39
Benzene	ND		0.50	1	10/13/2015 16:39
t-Butyl alcohol (TBA)	ND		2.0	1	10/13/2015 16:39
Diisopropyl ether (DIPE)	ND		0.50	1	10/13/2015 16:39
Ethylbenzene	ND		0.50	1	10/13/2015 16:39
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/13/2015 16:39
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/13/2015 16:39
Naphthalene	ND		0.50	1	10/13/2015 16:39
Toluene	ND		0.50	1	10/13/2015 16:39
Xylenes, Total	ND		0.50	1	10/13/2015 16:39
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	106		70-130		10/13/2015 16:39
Toluene-d8	92		70-130		10/13/2015 16:39
4-BFB	103		70-130		10/13/2015 16:39
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u>	b1	

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1510300-006B	Water	10/07/2015 10:05	GC10	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/12/2015 23:18
Benzene	ND		0.50	1	10/12/2015 23:18
t-Butyl alcohol (TBA)	2.5		2.0	1	10/12/2015 23:18
Diisopropyl ether (DIPE)	ND		0.50	1	10/12/2015 23:18
Ethylbenzene	ND		0.50	1	10/12/2015 23:18
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/12/2015 23:18
Methyl-t-butyl ether (MTBE)	11		0.50	1	10/12/2015 23:18
Naphthalene	ND		0.50	1	10/12/2015 23:18
Toluene	ND		0.50	1	10/12/2015 23:18
Xylenes, Total	ND		0.50	1	10/12/2015 23:18
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	87		70-130		10/12/2015 23:18
Toluene-d8	82		70-130		10/12/2015 23:18
4-BFB	94		70-130		10/12/2015 23:18
<u>Analyst(s):</u> KF					

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1510300-007B	Water	10/07/2015 11:20	GC10	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/12/2015 23:59
Benzene	ND		0.50	1	10/12/2015 23:59
t-Butyl alcohol (TBA)	ND		2.0	1	10/12/2015 23:59
Diisopropyl ether (DIPE)	ND		0.50	1	10/12/2015 23:59
Ethylbenzene	ND		0.50	1	10/12/2015 23:59
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/12/2015 23:59
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/12/2015 23:59
Naphthalene	ND		0.50	1	10/12/2015 23:59
Toluene	ND		0.50	1	10/12/2015 23:59
Xylenes, Total	ND		0.50	1	10/12/2015 23:59
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	88		70-130		10/12/2015 23:59
Toluene-d8	82		70-130		10/12/2015 23:59
4-BFB	94		70-130		10/12/2015 23:59
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u>	b1	

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1510300-008B	Water	10/07/2015 10:35	GC10	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/13/2015 00:40
Benzene	ND		0.50	1	10/13/2015 00:40
t-Butyl alcohol (TBA)	ND		2.0	1	10/13/2015 00:40
Diisopropyl ether (DIPE)	ND		0.50	1	10/13/2015 00:40
Ethylbenzene	ND		0.50	1	10/13/2015 00:40
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/13/2015 00:40
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/13/2015 00:40
Naphthalene	ND		0.50	1	10/13/2015 00:40
Toluene	ND		0.50	1	10/13/2015 00:40
Xylenes, Total	ND		0.50	1	10/13/2015 00:40
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	88		70-130		10/13/2015 00:40
Toluene-d8	82		70-130		10/13/2015 00:40
4-BFB	91		70-130		10/13/2015 00:40
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u>	b1	

(Cont.)



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-9	1510300-009B	Water	10/07/2015 15:10	GC28	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		2.5	5	10/13/2015 17:17
Benzene	<b>17</b>		2.5	5	10/13/2015 17:17
t-Butyl alcohol (TBA)	ND		10	5	10/13/2015 17:17
Diisopropyl ether (DIPE)	ND		2.5	5	10/13/2015 17:17
Ethylbenzene	<b>78</b>		2.5	5	10/13/2015 17:17
Ethyl tert-butyl ether (ETBE)	ND		2.5	5	10/13/2015 17:17
Methyl-t-butyl ether (MTBE)	ND		2.5	5	10/13/2015 17:17
Naphthalene	<b>17</b>		2.5	5	10/13/2015 17:17
Toluene	ND		2.5	5	10/13/2015 17:17
Xylenes, Total	<b>43</b>		2.5	5	10/13/2015 17:17
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	108		70-130		10/13/2015 17:17
Toluene-d8	94		70-130		10/13/2015 17:17
4-BFB	104		70-130		10/13/2015 17:17

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1510300-010B	Water	10/07/2015 09:20	GC10	111435
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/13/2015 02:03
Benzene	ND		0.50	1	10/13/2015 02:03
t-Butyl alcohol (TBA)	ND		2.0	1	10/13/2015 02:03
Diisopropyl ether (DIPE)	ND		0.50	1	10/13/2015 02:03
Ethylbenzene	ND		0.50	1	10/13/2015 02:03
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/13/2015 02:03
Methyl-t-butyl ether (MTBE)	<b>1.3</b>		0.50	1	10/13/2015 02:03
Naphthalene	ND		0.50	1	10/13/2015 02:03
Toluene	ND		0.50	1	10/13/2015 02:03
Xylenes, Total	ND		0.50	1	10/13/2015 02:03
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	88		70-130		10/13/2015 02:03
Toluene-d8	81		70-130		10/13/2015 02:03
4-BFB	94		70-130		10/13/2015 02:03

Analyst(s): KF

Analytical Comments: b1



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/8/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1510300-001A	Water	10/07/2015 14:05	GC2B	111307
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	84		50	1	10/09/2015 18:59
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		10/09/2015 18:59
<u>Analyst(s):</u>	TK		<u>Analytical Comments:</u> e2,b1		
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1510300-002A	Water	10/07/2015 14:45	GC2B	111307
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	10/09/2015 21:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	99		70-130		10/09/2015 21:46
<u>Analyst(s):</u>	TK		<u>Analytical Comments:</u> b1		
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1510300-003A	Water	10/07/2015 12:20	GC2B	111307
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	10/10/2015 00:34
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		10/10/2015 00:34
<u>Analyst(s):</u>	TK				
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4	1510300-004A	Water	10/07/2015 13:10	GC2B	111307
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	10/10/2015 03:22
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	101		70-130		10/10/2015 03:22
<u>Analyst(s):</u>	TK		<u>Analytical Comments:</u> b1		

(Cont.)



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/8/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5R	1510300-005A	Water	10/07/2015 08:40	GC9a	111307

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	51	50	1	10/09/2015 17:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
C9	100	70-130		10/09/2015 17:55
<u>Analyst(s):</u>	<u>Analytical Comments:</u> e2,b1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1510300-006A	Water	10/07/2015 10:05	GC2B	111307

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	560	100	1	10/10/2015 13:09
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
C9	105	70-130		10/10/2015 13:09
<u>Analyst(s):</u>	<u>Analytical Comments:</u> e11			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1510300-007A	Water	10/07/2015 11:20	GC2B	111307

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	50	1	10/10/2015 07:33
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
C9	103	70-130		10/10/2015 07:33
<u>Analyst(s):</u>	<u>Analytical Comments:</u> b1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1510300-008A	Water	10/07/2015 10:35	GC2B	111307

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	50	1	10/10/2015 10:20
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
C9	104	70-130		10/10/2015 10:20
<u>Analyst(s):</u>	<u>Analytical Comments:</u> b1			

(Cont.)



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 21:10  
**Date Prepared:** 10/8/15  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-9	1510300-009A	Water	10/07/2015 15:10	GC11A	111307
Analyses	Result		RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	160		50	1	10/12/2015 13:56
Surrogates	REC (%)		Limits		
C9	101		70-130		10/12/2015 13:56
Analyst(s):	TK		Analytical Comments: e4		
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1510300-010A	Water	10/07/2015 09:20	GC9b	111307
Analyses	Result		RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND		100	1	10/09/2015 16:43
Surrogates	REC (%)		Limits		
C9	95		70-130		10/09/2015 16:43
Analyst(s):	TK		Analytical Comments: a3,b1		

**CLIENT:** Aqua Science Engineers, Inc.  
**Work Order:** 1510300  
**Project:** 3934; AHMM

**ANALYTICAL QC SUMMARY REPORT****BatchID: 111435**

SampleID	<b>MB-111435</b>	TestCode:	<b>8260GAS_W</b>	Units:	<b>µg/L</b>	Prep Date:	<b>10/12/2015</b>
Batch ID:	<b>111435</b>	TestNo:	<b>SW8260B</b>	Run ID:	<b>GC10_151013B</b>	Analysis Date:	<b>10/12/2015</b>
Analyte		Result		PQL	SPKValue	SPKRefVal	%REC
TPH(g)		ND		50	0	0	0 - 0

**Surrogate Recovery**

Dibromofluoromethane	24.1	25	96	70 - 130
----------------------	------	----	----	----------

**Qualifiers:**  
 ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

**CLIENT:** Aqua Science Engineers, Inc.  
**Work Order:** 1510300  
**Project:** 3934; AHMM

## ANALYTICAL QC SUMMARY REPORT

**BatchID:** 111435

SampleID	LCS-111435	TestCode:	8260GAS_W	Units:	µg/L	Prep Date:	10/12/2015	
Batch ID:	111435	TestNo:	SW8260B	Run ID:	GC10_151013B	Analysis Date:	10/12/2015	
Analyte		Result		PQL	SPKValue	SPKRefVal	%REC	
VOC (C6-C12)		602		50	644	0	94	75 - 105

**Surrogate Recovery**

Dibromofluoromethane	25.9	25	104	70 - 130
----------------------	------	----	-----	----------

**Qualifiers:**  
ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



## Quality Control Report

**Client:** Aqua Science Engineers, Inc.  
**Date Prepared:** 10/12/15  
**Date Analyzed:** 10/12/15  
**Instrument:** GC10  
**Matrix:** Water  
**Project:** 3934; AHMM

**WorkOrder:** 1510300  
**BatchID:** 111435  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-111435  
1510300-002BMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	9.78	0.50	10	-	98	54-140
Benzene	ND	10.5	0.50	10	-	105	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	39.0	2.0	40	-	98	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	9.63	0.50	10	-	96	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	8.96	0.50	10	-	90	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	10.3	0.50	10	-	103	66-125
1,1-Dichloroethylene	ND	9.64	0.50	10	-	96	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



## Quality Control Report

<b>Client:</b>	Aqua Science Engineers, Inc.	<b>WorkOrder:</b>	1510300
<b>Date Prepared:</b>	10/12/15	<b>BatchID:</b>	111435
<b>Date Analyzed:</b>	10/12/15	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC10	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	3934; AHMM	<b>Sample ID:</b>	MB/LCS-111435 1510300-002BMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	9.66	0.50	10	-	97	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.72	0.50	10	-	97	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	9.60	0.50	10	-	96	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	9.10	0.50	10	-	91	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.90	0.50	10	-	99	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

 QA/QC Officer



## Quality Control Report

<b>Client:</b>	Aqua Science Engineers, Inc.	<b>WorkOrder:</b>	1510300
<b>Date Prepared:</b>	10/12/15	<b>BatchID:</b>	111435
<b>Date Analyzed:</b>	10/12/15	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC10	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	3934; AHMM	<b>Sample ID:</b>	MB/LCS-111435 1510300-002BMS/MSD

---

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
<b>Surrogate Recovery</b>									
Dibromofluoromethane	21.3	22.9		25	85	92	70-130		
Toluene-d8	20.5	20.6		25	82	82	70-130		
4-BFB	2.25	2.32		2.5	90	93	70-130		
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	10.5	11.8	10	ND	105	118	69-139	11.7	20
Benzene	11.1	12.3	10	ND	111	123	69-141	10.5	20
t-Butyl alcohol (TBA)	47.0	52.8	40	ND	117	132	41-152	11.6	20
Chlorobenzene	9.64	10.6	10	ND	96	106	77-120	9.13	20
1,2-Dibromoethane (EDB)	9.32	10.5	10	ND	93	105	76-135	11.8	20
1,2-Dichloroethane (1,2-DCA)	11.1	12.4	10	ND	111	124	73-139	10.3	20
1,1-Dichloroethene	10.3	11.4	10	ND	103	114	59-140	10.2	20
Diisopropyl ether (DIPE)	10.2	11.3	10	ND	102	113	72-140	10.3	20
Ethyl tert-butyl ether (ETBE)	10.4	11.6	10	ND	104	116	71-140	10.3	20
Methyl-t-butyl ether (MTBE)	10.7	11.8	10	ND	106	116	73-139	9.23	20
Toluene	9.04	9.94	10	ND	90	99	71-128	9.43	20
Trichloroethene	10.4	11.5	10	ND	104	115	64-132	10.0	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	22.8	22.7	25		91	91	70-130	0	20
Toluene-d8	20.1	20.0	25		80	80	70-130	0	20
4-BFB	2.30	2.32	2.5		92	93	70-130	0.653	20



## Quality Control Report

**Client:** Aqua Science Engineers, Inc.      **WorkOrder:** 1510300  
**Date Prepared:** 10/8/15      **BatchID:** 111307  
**Date Analyzed:** 10/9/15      **Extraction Method:** SW3510C/3630C  
**Instrument:** GC6A      **Analytical Method:** SW8015B  
**Matrix:** Water      **Unit:** µg/L  
**Project:** 3934; AHMM      **Sample ID:** MB/LCS-111307

---

### QC Report for SW8015B w/SG Clean-Up

---

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	707	50	1000	-	71	59-151
TPH-Motor Oil (C18-C36)	ND	-	250	-	-	-	-
<b>Surrogate Recovery</b>							
C9	513	511		625	82	82	65-122

---



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1510300

ClientCode: ASE

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

## Report to:

Dave Allen  
Aqua Science Engineers, Inc.  
55 Oak Court Suite 220  
Danville, CA 94526  
(925) 820-9391    FAX: (925) 837-4853

Email: dallen@aquascienceengineers.com  
cc/3rd Party:  
PO:  
ProjectNo: 3934; AHMM

## Bill to:

Diane Schiell  
Aqua Science Engineers, Inc.  
217 Wild Flower Drive  
Roseville, CA 95678  
deezthng22@yahoo.com

Requested TAT: 5 days;

Date Received: 10/08/2015  
Date Printed: 10/08/2015

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1510300-001	MW-1	Water	10/7/2015 14:05	<input type="checkbox"/>	B	B	A	A								
1510300-002	MW-2	Water	10/7/2015 14:45	<input type="checkbox"/>	B	B		A								
1510300-003	MW-3	Water	10/7/2015 12:20	<input type="checkbox"/>	B	B		A								
1510300-004	MW-4	Water	10/7/2015 13:10	<input type="checkbox"/>	B	B		A								
1510300-005	MW-5R	Water	10/7/2015 8:40	<input type="checkbox"/>	B	B		A								
1510300-006	MW-6	Water	10/7/2015 10:05	<input type="checkbox"/>	B	B		A								
1510300-007	MW-7	Water	10/7/2015 11:20	<input type="checkbox"/>	B	B		A								
1510300-008	MW-8	Water	10/7/2015 10:35	<input type="checkbox"/>	B	B		A								
1510300-009	MW-9	Water	10/7/2015 15:10	<input type="checkbox"/>	B	B		A								
1510300-010	MW-10	Water	10/7/2015 9:20	<input type="checkbox"/>	B	B		A								

Test Legend:

1	8260GAS_W
5	
9	

2	8260VOC_W
6	
10	

3	PREDF REPORT
7	
11	

4	TPH(D)WSG_W
8	
12	

The following SamplIDs: 001B, 002B, 003B, 004B, 005B, 006B, 007B, 008B, 009B, 010B contain testgroup.

Prepared by: Agustina Venegas

## Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** AQUA SCIENCE ENGINEERS, INC.

**QC Level:** LEVEL 2

**Work Order:** 1510300

**Project:** 3934; AHMM

**Client Contact:** Dave Allen

**Date Received:** 10/8/2015

**Comments:**

**Contact's Email:** [dallen@aquascienceengineers.com](mailto:dallen@aquascienceengineers.com)

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1510300-001A	MW-1	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 14:05	5 days	5%+	<input type="checkbox"/>	
1510300-001B	MW-1	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 14:05	5 days	5%+	<input type="checkbox"/>	
1510300-002A	MW-2	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 14:45	5 days	5%+	<input type="checkbox"/>	
1510300-002B	MW-2	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 14:45	5 days	5%+	<input type="checkbox"/>	
1510300-003A	MW-3	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 12:20	5 days	Present	<input type="checkbox"/>	
1510300-003B	MW-3	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 12:20	5 days	Present	<input type="checkbox"/>	
1510300-004A	MW-4	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 13:10	5 days	5%+	<input type="checkbox"/>	
1510300-004B	MW-4	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 13:10	5 days	5%+	<input type="checkbox"/>	
1510300-005A	MW-5R	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 8:40	5 days	5%+	<input type="checkbox"/>	
1510300-005B	MW-5R	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 8:40	5 days	5%+	<input type="checkbox"/>	
1510300-006A	MW-6	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 10:05	5 days	Present	<input type="checkbox"/>	
1510300-006B	MW-6	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 10:05	5 days	Present	<input type="checkbox"/>	
1510300-007A	MW-7	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 11:20	5 days	5%+	<input type="checkbox"/>	
1510300-007B	MW-7	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 11:20	5 days	5%+	<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



## WORK ORDER SUMMARY

**Client Name:** AQUA SCIENCE ENGINEERS, INC.

**QC Level:** LEVEL 2

**Work Order:** 1510300

**Project:** 3934; AHMM

**Client Contact:** Dave Allen

**Date Received:** 10/8/2015

**Comments:**

**Contact's Email:** [dallen@aquascienceengineers.com](mailto:dallen@aquascienceengineers.com)

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1510300-008A	MW-8	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 10:35	5 days	5%+	<input type="checkbox"/>	
1510300-008B	MW-8	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 10:35	5 days	5%+	<input type="checkbox"/>	
1510300-009A	MW-9	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 15:10	5 days	Present	<input type="checkbox"/>	
1510300-009B	MW-9	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 15:10	5 days	Present	<input type="checkbox"/>	
1510300-010A	MW-10	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 9:20	5 days	5%+	<input type="checkbox"/>	
1510300-010B	MW-10	Water	TPH(g) & 8260 (Misc. Compounds) by P&T GCMS	3	VOA w/ HCl	<input type="checkbox"/>	10/7/2015 9:20	5 days	5%+	<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1510300

# Chain of Custody

PAGE 1 of 1

SAMPLER (SIGNATURE) <u>D. Allen</u>				PROJECT NAME <u>AH MM</u>				JOB NO. <u>3934</u>													
ANALYSIS REQUEST				ADDRESS <u>800 SAN PABLO AVE, ALBANY</u>																	
SPECIAL INSTRUCTIONS:																					
SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015) w/ 5% CLEA NCE	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	ORGANOCHLORINATED HERBICIDES (EPA 8151A)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs (EPA 8082)	ORGANOCHLORINATED PESTICIDES (EPA 8081A)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	TPH-G, BTEX & 5 OXY's (EPA 8260)	ARSENIC, LEAD & MERCURY (EPA 6010)	COMPOSITE	EDF	HOLD
MW-1	10/7/15	1405			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-2		1445			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-3		1220			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-4		1310			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-5R		0840			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-6		1005			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-7		1120			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-8		1035			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-9		1510			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
MW-10		0920			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
RELINQUISHED BY: <u>D. Allen</u> (signature)				RECEIVED BY: <u>B. Allen</u> (signature)				RELINQUISHED BY: <u>B. Allen</u> (signature)				RECEIVED BY LABORATORY <u>AUGUSTINIAN</u> (signature)				COMMENTS:					
D. Allen (printed name)				B. Allen (printed name)				B. Allen (printed name)				AUGUSTINIAN (printed name)				TURN AROUND TIME					
Company-ASE, INC.				Company- <u>MAI</u>				Company- <u>MAI</u>				Company- <u>MAI</u>				STANDARD 24Hr 48Hr 72Hr					
																OTHER:					



## Sample Receipt Checklist

Client Name: **Aqua Science Engineers, Inc.**

Date and Time Received: **10/8/2015 9:10:31 PM**

Project Name: **3934; AHMM**

Login Reviewed by: **Agustina Venegas**

WorkOrder No: **1510300**

Matrix: Water

Carrier: Benjamin Yslas (MAI Courier)

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample/Temp Blank temperature                               | Temp: 3.8°C                             |                             | NA <input type="checkbox"/>            |
| Water - VOA vials have zero headspace / no bubbles?         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>            |
| Sample labels checked for correct preservation?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

### UCMR3 Samples:

- |  |                              |                             |  |
|--|------------------------------|-----------------------------|--|
| Total Chlorine tested and acceptable upon receipt for EPA 522?                   | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

\* NOTE: If the "No" box is checked, see comments below.

Comments:



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 C**

Certified Analytical Report  
and  
Chain of Custody Documentation  
For Soil Vapor Samples



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1510310

**Report Created for:** Aqua Science Engineers, Inc.

55 Oak Court Suite 220  
Danville, CA 94526

**Project Contact:** Robert Kitay

**Project P.O.:**

**Project Name:** 3834; Albany Hill

**Project Received:** 10/08/2015

Analytical Report reviewed & approved for release on 10/16/2015 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** Aqua Science Engineers, Inc.  
**Project:** 3834; Albany Hill  
**WorkOrder:** 1510310

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
c7	Surrogate value diluted out of range



## Glossary of Terms & Qualifier Definitions

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

**Project:** 3834; Albany Hill

**WorkOrder:** 1510310

### **Quality Control Qualifiers**

- F1 MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.  
F2 LCS recovery for this compound is outside of acceptance limits.



## Case Narrative

**Client:** Aqua Science Engineers, Inc.  
**Project:** 3834; Albany Hill

**Work Order:** 1510310  
October 16, 2015

### TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Advisory of April 2012.



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 16:50  
**Date Prepared:** 10/13/15  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %

---

### Helium

---

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVW-1	1510310-001A	SoilGas	10/07/2015 13:00	GC26	111487

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
7.14	18.07	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.063	1	10/13/2015 15:13

---

SVW-5	1510310-002A	SoilGas	10/07/2015 11:00	GC26	111487
-------	--------------	---------	------------------	------	--------

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
5.23	18.13	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	1.7	20	10/13/2015 16:17



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 16:50  
**Date Prepared:** 10/12/15-10/13/15  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %

### Light Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVW-1	1510310-001A	SoilGas	10/07/2015 13:00	GC26	111488

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)		
7.14	18.07	AK, MG		
Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	3.6	0.10	20	10/13/2015 11:14
Methane	0.0015	0.00025	1	10/13/2015 10:03
Oxygen	10	0.51	1	10/12/2015 14:52

SVW-5	1510310-002A	SoilGas	10/07/2015 11:00	GC26	111488
-------	--------------	---------	------------------	------	--------

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)		
5.23	18.13	AK, MG		
Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	3.1	0.14	20	10/13/2015 11:34
Methane	0.074	0.00035	1	10/13/2015 10:24
Oxygen	3.8	0.69	1	10/12/2015 15:13



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 16:50  
**Date Prepared:** 10/14/15  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

---

### TPH gas in $\mu\text{g}/\text{m}^3$

---

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVW-1	1510310-001A	SoilGas	10/07/2015 13:00	GC24	111548

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)		
7.14	18.07	AK		
Analytes	Result	RL	DF	Date Analyzed
TPH(g)	1300	910	1	10/14/2015 23:54
Surrogates	REC (%)	Limits		
1,2-DCA-d4	98	70-130		10/14/2015 23:54

---



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 16:50  
**Date Prepared:** 10/14/15  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:**  $\mu\text{g}/\text{m}^3$

---

### TPH gas by P&T and GC/MS in $\mu\text{g}/\text{m}^3$

---

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVW-5	1510310-002A	SoilGas	10/07/2015 11:00	GC28	111542

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
5.23	18.13	KF
Analytes	Result	RL DF Date Analyzed
TPH(g)	4,700,000	870,000 10 10/14/2015 20:46
Surrogates	REC (%)	Limits
Dibromofluoromethane	107	70-130 10/14/2015 20:46

---



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 16:50  
**Date Prepared:** 10/15/15  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:**  $\mu\text{g}/\text{m}^3$

### Volatile Organics by P&T and GC/MS in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVW-5	1510310-002A	SoilGas	10/07/2015 11:00	GC10	111542

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)		
5.23	18.13	AK		
Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	1700	2	10/15/2015 16:39
Benzene	20,000	1700	2	10/15/2015 16:39
t-Butyl alcohol (TBA)	ND	17,000	2	10/15/2015 16:39
Diisopropyl ether (DIPE)	ND	1700	2	10/15/2015 16:39
Ethylbenzene	10,000	1700	2	10/15/2015 16:39
Ethyl tert-butyl ether (ETBE)	ND	1700	2	10/15/2015 16:39
Naphthalene	ND	1700	2	10/15/2015 16:39
Toluene	ND	1700	2	10/15/2015 16:39
Xylenes, Total	ND	1700	2	10/15/2015 16:39
Surrogates	REC (%)	Qualifiers	Limits	
Dibromofluoromethane	61	S	70-130	10/15/2015 16:39
Toluene-d8	84		70-130	10/15/2015 16:39
4-BFB	87		70-130	10/15/2015 16:39

Analytical Comments: c7



## Analytical Report

**Client:** Aqua Science Engineers, Inc.  
**Date Received:** 10/8/15 16:50  
**Date Prepared:** 10/14/15  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVW-1	1510310-001A	SoilGas	10/07/2015 13:00	GC24	111548

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)		
7.14	18.07	AK		
Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	2.7	1	10/14/2015 23:54
Benzene	4.1	2.0	1	10/14/2015 23:54
t-Butyl alcohol (TBA)	ND	39	1	10/14/2015 23:54
Diisopropyl ether (DIPE)	ND	2.7	1	10/14/2015 23:54
Ethyl tert-butyl ether (ETBE)	ND	2.7	1	10/14/2015 23:54
Ethylbenzene	ND	2.8	1	10/14/2015 23:54
Methyl-t-butyl ether (MTBE)	ND	2.3	1	10/14/2015 23:54
Naphthalene	9.2	6.7	1	10/14/2015 23:54
Toluene	12	2.4	1	10/14/2015 23:54
Xylenes, Total	13	8.4	1	10/14/2015 23:54
Surrogates	REC (%)	Limits		
1,2-DCA-d4	85	70-130		
Toluene-d8	99	70-130		
4-BFB	99	70-130		



## Quality Control Report

**Client:** Aqua Science Engineers, Inc.      **WorkOrder:** 1510310  
**Date Prepared:** 10/13/15      **BatchID:** 111487  
**Date Analyzed:** 10/13/15      **Extraction Method:** ASTM D 1946-90  
**Instrument:** GC26      **Analytical Method:** ASTM D 1946-90  
**Matrix:** Soilgas      **Unit:** %  
**Project:** 3834; Albany Hill      **Sample ID:** MB/LCS-111487

---

### QC Summary Report for ASTM D1946-90

---

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.0842	0.025	0.10	-	84	60-140

---



## Quality Control Report

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

**WorkOrder:** 1510310

**Date Prepared:** 10/12/15 - 10/13/15

**BatchID:** 111488

**Date Analyzed:** 10/12/15 - 10/13/15

**Extraction Method:** ASTM D 1946-90

**Instrument:** GC26

**Analytical Method:** ASTM D 1946-90

**Matrix:** SoilGas

**Unit:** %

**Project:** 3834; Albany Hill

**Sample ID:** MB/LCS-111488

---

### QC Summary Report for ASTM D1946-90

---

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Carbon Dioxide	ND	0.00757	0.0020	0.010	-	76	70-130
Methane	ND	0.0113	0.00010	0.010	-	113	70-130
Oxygen	ND	0.707	0.20	0.70	-	101	70-130

---



## Quality Control Report

**Client:** Aqua Science Engineers, Inc.  
**Date Prepared:** 10/14/15  
**Date Analyzed:** 10/14/15  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**BatchID:** 111542  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-111542  
1510104-005AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	13.2	0.50	10	-	132	54-140
Benzene	ND	11.5	0.50	10	-	115	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	51.5	2.0	40	-	129	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	10.6	0.50	10	-	106	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	11.1	0.50	10	-	111	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	11.9	0.50	10	-	119	66-125
1,1-Dichloroethene	ND	11.1	0.50	10	-	111	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

 QA/QC Officer



## Quality Control Report

<b>Client:</b>	Aqua Science Engineers, Inc.	<b>WorkOrder:</b>	1510310
<b>Date Prepared:</b>	10/14/15	<b>BatchID:</b>	111542
<b>Date Analyzed:</b>	10/14/15	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC28	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	3834; Albany Hill	<b>Sample ID:</b>	MB/LCS-111542 1510104-005AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	11.6	0.50	10	-	116	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	12.4	0.50	10	-	125	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	12.4	0.50	10	-	124	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	10.3	0.50	10	-	103	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	11.5	0.50	10	-	115	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

 QA/QC Officer



## Quality Control Report

**Client:** Aqua Science Engineers, Inc.  
**Date Prepared:** 10/14/15  
**Date Analyzed:** 10/14/15  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**BatchID:** 111542  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-111542  
1510104-005AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
<b>Surrogate Recovery</b>									
Dibromofluoromethane	26.1	26.6		25	104	107	70-130		
Toluene-d8	23.2	23.1		25	93	93	70-130		
4-BFB	2.26	2.15		2.5	90	86	70-130		
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	13.6	13.9	10	ND	137	139	69-139	1.78	20
Benzene	11.0	10.6	10	ND	110	106	69-141	3.55	20
t-Butyl alcohol (TBA)	70.2	60.1	40	ND	175,F1	150	41-152	15.6	20
Chlorobenzene	9.73	10.0	10	ND	97	100	77-120	2.74	20
1,2-Dibromoethane (EDB)	11.6	12.3	10	ND	116	123	76-135	5.93	20
1,2-Dichloroethane (1,2-DCA)	12.0	11.3	10	ND	121	113	73-139	6.79	20
1,1-Dichloroethene	10.5	8.79	10	ND	105	88	59-140	17.9	20
Diisopropyl ether (DIPE)	11.9	11.4	10	ND	119	114	72-140	4.39	20
Ethyl tert-butyl ether (ETBE)	13.0	12.4	10	ND	130	124	71-140	4.74	20
Methyl-t-butyl ether (MTBE)	13.6	13.0	10	ND	136	130	73-139	3.92	20
Tetrachloroethene	9.42	10.2	10	ND	94	102	71-125	7.57	20
Toluene	9.38	9.70	10	ND	94	97	71-128	3.31	20
Trichloroethene	10.5	10.6	10	ND	105	106	64-132	0.912	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	27.9	26.9	25		112	108	70-130	3.72	20
Toluene-d8	22.7	23.1	25		91	93	70-130	2.01	20
4-BFB	2.12	2.48	2.5		85	99	70-130	15.8	20



## Quality Control Report

**Client:** Aqua Science Engineers, Inc.  
**Date Prepared:** 10/14/15  
**Date Analyzed:** 10/14/15  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**BatchID:** 111548  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-111548

### QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	12	-	-	-	-
Acrolein	ND	24.4	1.2	25	-	97	60-140
Acrylonitrile	ND	27.7	0.25	25	-	111	60-140
tert-Amyl methyl ether (TAME)	ND	25.6	0.25	25	-	103	60-140
Benzene	ND	22.7	0.25	25	-	91	60-140
Benzyl chloride	ND	28.7	0.25	25	-	115	60-140
Bromodichloromethane	ND	22.0	0.25	25	-	88	60-140
Bromoform	ND	24.2	0.25	25	-	97	60-140
Bromomethane	ND	24.2	0.25	25	-	97	60-140
1,3-Butadiene	ND	22.2	0.25	25	-	89	60-140
2-Butanone (MEK)	ND	-	12	-	-	-	-
t-Butyl alcohol (TBA)	ND	24.9	5.0	25	-	100	60-140
Carbon Disulfide	ND	27.5	0.25	25	-	110	60-140
Carbon Tetrachloride	ND	23.6	0.25	25	-	94	60-140
Chlorobenzene	ND	25.6	0.25	25	-	102	60-140
Chloroethane	ND	28.8	0.25	25	-	115	60-140
Chloroform	ND	19.5	0.25	25	-	78	60-140
Chloromethane	ND	25.1	0.25	25	-	101	60-140
Cyclohexane	ND	23.8	2.5	25	-	95	60-140
Dibromochloromethane	ND	24.5	0.25	25	-	98	60-140
1,2-Dibromo-3-chloropropane	ND	28.5	0.0060	25	-	114	60-140
1,2-Dibromoethane (EDB)	ND	24.9	0.25	25	-	100	60-140
1,2-Dichlorobenzene	ND	26.3	0.25	25	-	105	60-140
1,3-Dichlorobenzene	ND	25.7	0.25	25	-	103	60-140
1,4-Dichlorobenzene	ND	24.3	0.25	25	-	97	60-140
Dichlorodifluoromethane	ND	22.4	0.25	25	-	90	60-140
1,1-Dichloroethane	ND	23.4	0.25	25	-	93	60-140
1,2-Dichloroethane (1,2-DCA)	ND	20.5	0.25	25	-	82	60-140
1,1-Dichloroethene	ND	21.7	0.25	25	-	87	60-140
cis-1,2-Dichloroethene	ND	22.5	0.25	25	-	90	60-140
trans-1,2-Dichloroethene	ND	23.9	0.25	25	-	95	60-140
1,2-Dichloropropane	ND	22.2	0.25	25	-	89	60-140
cis-1,3-Dichloropropene	ND	26.9	0.25	25	-	108	60-140
trans-1,3-Dichloropropene	ND	26.9	0.25	25	-	108	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	25.7	0.25	25	-	103	60-140
Diisopropyl ether (DIPE)	ND	24.6	0.25	25	-	99	60-140
1,4-Dioxane	ND	24.4	0.25	25	-	98	60-140
Ethanol	ND	-	25	-	-	-	-

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

 QA/QC Officer



## Quality Control Report

**Client:** Aqua Science Engineers, Inc.  
**Date Prepared:** 10/14/15  
**Date Analyzed:** 10/14/15  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** 3834; Albany Hill

**WorkOrder:** 1510310  
**BatchID:** 111548  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-111548

### QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethyl acetate	ND	26.1	0.25	25	-	104	60-140
Ethyl tert-butyl ether (ETBE)	ND	24.2	0.25	25	-	97	60-140
Ethylbenzene	ND	26.0	0.25	25	-	104	60-140
4-Ethyltoluene	ND	26.3	0.25	25	-	105	60-140
Freon 113	ND	22.0	0.25	25	-	88	60-140
Heptane	ND	26.2	2.5	25	-	105	60-140
Hexachlorobutadiene	ND	28.6	0.25	25	-	114	60-140
Hexane	ND	23.6	2.5	25	-	94	60-140
2-Hexanone	ND	25.7	0.25	25	-	103	60-140
4-Methyl-2-pentanone (MIBK)	ND	34.7	0.25	25	-	139	60-140
Methyl-t-butyl ether (MTBE)	ND	24.0	0.25	25	-	96	60-140
Methylene chloride	ND	22.9	1.2	25	-	91	60-140
Methyl methacrylate	ND	28.4	0.25	25	-	114	60-140
Naphthalene	ND	55.1	0.50	50	-	110	60-140
Propene	ND	-	25	-	-	-	-
Styrene	ND	26.6	0.25	25	-	106	60-140
1,1,1,2-Tetrachloroethane	ND	22.5	0.25	25	-	90	60-140
1,1,2,2-Tetrachloroethane	ND	24.6	0.25	25	-	99	60-140
Tetrachloroethene	ND	24.6	0.25	25	-	99	60-140
Tetrahydrofuran	ND	25.4	0.50	25	-	102	60-140
Toluene	ND	26.2	0.25	25	-	105	60-140
1,2,4-Trichlorobenzene	ND	30.0	0.25	25	-	120	60-140
1,1,1-Trichloroethane	ND	23.8	0.25	25	-	95	60-140
1,1,2-Trichloroethane	ND	25.2	0.10	25	-	101	60-140
Trichloroethene	ND	22.2	0.25	25	-	89	60-140
Trichlorofluoromethane	ND	24.3	0.25	25	-	97	60-140
1,2,4-Trimethylbenzene	ND	26.4	0.25	25	-	105	60-140
1,3,5-Trimethylbenzene	ND	26.0	0.25	25	-	104	60-140
Vinyl Acetate	ND	31.7	2.5	25	-	127	60-140
Vinyl Chloride	ND	19.0	0.25	25	-	76	60-140
Xylenes, Total	ND	76.4	0.75	75	-	102	60-140
<b>Surrogate Recovery</b>							
1,2-DCA-d4	446	418		500	89	84	70-130
Toluene-d8	487	511		500	97	102	70-130
4-BFB	466	471		500	93	94	70-130



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1510310

ClientCode: ASE

WaterTrax  WriteOn  EDF  Excel  EQuIS  Email  HardCopy  ThirdParty  J-flag

## Report to:

Robert Kitay  
Aqua Science Engineers, Inc.  
55 Oak Court Suite 220  
Danville, CA 94526  
(925) 820-9391 FAX: (925) 837-4853

Email: rkitay@aquascienceengineers.com  
cc/3rd Party:  
PO:  
ProjectNo: 3834; Albany Hill

## Bill to:

Diane Schiell  
Aqua Science Engineers, Inc.  
217 Wild Flower Drive  
Roseville, CA 95678  
deezthng22@yahoo.com

Requested TAT: 5 days;

Date Received: 10/08/2015  
Date Printed: 10/09/2015

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1510310-001	SVW-1	SoilGas	10/7/2015 13:00	<input type="checkbox"/>	A	A	A	A	A	A	A					
1510310-002	SVW-5	SoilGas	10/7/2015 11:00	<input type="checkbox"/>	A	A		A	A	A	A					

Test Legend:

1	HELIUM_LC_SOILGAS(%)
5	TO15_Scan-SIM_SOIL(UG/M3)
9	

2	LG_SUMMA_SOILGAS(%)
6	TO15-8260_SOIL(UG/M3)
10	

3	PREDF REPORT
7	TO15GAS_Scan-SIM_SOIL(UG/M3)
11	

4	PRHELIUM SHROUD
8	
12	

The following SampIDs: 001A, 002A contain testgroup.

Prepared by: Maria Venegas

## Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** AQUA SCIENCE ENGINEERS, INC.

**QC Level:** LEVEL 2

**Work Order:** 1510310

**Project:** 3834; Albany Hill

**Client Contact:** Robert Kitay

**Date Received:** 10/8/2015

**Comments:**

**Contact's Email:** rkitay@aquascienceengineers.com

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1510310-001A	SVW-1	SoilGas	ASTM D1946-90 (Light Gases) <Carbon Dioxide_2, Methane_4, Oxygen>  TO15 + Gas w/ Helium	1	1L Summa	<input type="checkbox"/>	10/7/2015 13:00	5 days		<input type="checkbox"/>	
1510310-002A	SVW-5	SoilGas	ASTM D1946-90 (Light Gases) <Carbon Dioxide_2, Methane_4, Oxygen>  TO15 + Gas w/ Helium	1	1L Summa	<input type="checkbox"/>	10/7/2015 11:00	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).  
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701  
www.mccampbell.com / main@mccampbell.com  
Telephone: (877) 252-9262 / Fax: (925) 252-9269

Report To: Robert Kitay Bill To: Robert Kitay

Company: Aqua Science Engineers

55 Oak Ct. Ste 220

Panvill et al 94526 E-Mail: skitay@uga.edu

Telephone, 22)

E-Mail: skitay@aguarisience.org.mn

Project #: 3834

Project Name: Albany It: 11

Project Location: 800 San Pablo Ave., Albany, CA

*[Signature]*

## CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH  1 Day  2 Day  3 Day  5 DAY

1 Day  2 Day  3 Day  5 DAY

GeoTracker EDF  PDF  EDD  EQuIS  10 DAY

PDF

E

2

QuIS

10 DAY

UST Clean Up Fund Project  Claim #

Please talk to Blatner regarding pricing



## Sample Receipt Checklist

Client Name: **Aqua Science Engineers, Inc.**

Date and Time Received: **10/8/2015 4:50:00 PM**

Project Name: **3834; Albany Hill**

Login Reviewed by: **Maria Venegas**

WorkOrder No: **1510310**

Matrix: **SoilGas**

Carrier: **Benjamin Yslas (MAI Courier)**

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |  |  |
|---|---|--|--|
| All samples received within holding time?                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| Sample/Temp Blank temperature                               | Temp:                                   |  | NA <input checked="" type="checkbox"/> |
| Water - VOA vials have zero headspace / no bubbles?         | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                                    | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |  |

### UCMR3 Samples:

- |  |                              |                             |  |
|--|------------------------------|-----------------------------|--|
| Total Chlorine tested and acceptable upon receipt for EPA 522?                   | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

\* NOTE: If the "No" box is checked, see comments below.

Comments: