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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

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

July 11, 2014

SOIL AND SOIL VAPOR ASSESSMENT REPORT
ASE JOB NO. 3834

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

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
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1.0 INTRODUCTION

This report presents the methods and findings of Aqua Science Engineers, Inc. (ASE)'s soil and soil vapor survey assessment performed at and surrounding the Albany Hill Mini Mart located at 800 San Pablo Avenue in Albany, California (Figures 1 and 2). The site assessment activities were initiated by Jasminder and Sonia Sikand, owners of the property, as requested by the Alameda County Health Care Services Agency (ACHCSA) in their directive letter dated January 4, 2013.

2.0 SITE HISTORY

Please see ASE's "Updated Site Conceptual Model" document dated August 4, 2011 and September 20, 2012 "Soil, Groundwater, and Soil Vapor Assessment Report" for detailed description of the site history and environmental condition of the site.

3.0 SCOPE OF WORK (SOW)

The purpose of this assessment is to provide additional data to be used to determine whether the site may be closed as a low-threat case under the new California Regional Water Quality Control Board, San Francisco Bay Region Low-Threat Closure Policy. The specific scope of work was as follows:

1) Obtain a drilling permit from the Alameda County Public Works Agency and an encroachment permit from the City of Albany.

2) Notify Underground Service Alert (USA) of the drilling and have drilling locations cleared of subsurface utility lines by a private subsurface utility line locating company.

3) Drill six soil borings in locations on and off-site using a Geoprobe, and collect shallow soil samples for analysis.

4) Analyze one soil sample from each boring collected at a depth shallower than 5-feet below ground surface (bgs) at a CAL-EPA certified analytical laboratory for total petroleum hydrocarbons as diesel (TPH-D) by modified Method 8015 and total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX), naphthalene, and fuel oxygenates by EPA Method 8260B.

5) Collect soil vapor samples in five of the borings described in Task 3.

6) Analyze the soil vapor sample from each boring at a CAL-EPA certified analytical laboratory for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene and total xylenes (collectively known as BTEX) and naphthalene by EPA Method TO-15, and carbon dioxide, oxygen, nitrogen, methane and helium by ASTM D1946.

7) Backfill each boring with neat cement.

8) Review City of Albany Building Department records, if available, to determine construction details of the building foundations at 800 San Pablo Avenue (site), 752 San Pablo Avenue (Mallard Club) and 1020 Washington Avenue (apartment west of the site).

9) Prepare a report presenting the methods and findings of this assessment.

Details of the assessment are presented below.

4.0 DRILL SOIL BORINGS AND COLLECT SOIL SAMPLES

4.1 Permits, Access Agreements, and Subsurface Utility Line Clearance

Prior to drilling, ASE obtained a drilling permit from the Alameda County Public Works Agency. ASE also obtained an encroachment permit from the City of Albany to allow for drilling in the city's right-of-way. Copies of these permits are presented in Appendix A.

ASE also notified Underground Service Alert (USA) to have public underground utility lines marked in the site vicinity. A private underground utility line locating service, Cruz Brothers Locators of Scott's Valley, California, was also contracted to clear each boring location of underground utility lines.

4.2 Drilling and Soil Sample Collection

On February 25, 2014, Vironex Environmental Field Services of Concord, California drilled soil borings BH-BB through BH-DD, BH-FF, BH-GG and SVW-1 using a Geoprobe direct push drilling rig. Boring BH-EE was drilled with a sampler driven into place with a rotohammer. ASE senior geologist Robert E. Kitay, P.G. directed the drilling.

Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible chemical analysis. The samples were collected by driving a sampler lined with acetate tubes using hydraulic direct push methods. Selective soil samples were immediately cut, sealed with Teflon tape and plastic end caps, labeled and chilled in an ice chest with wet ice for transport to Kiff Analytical of Davis, California (ELAP certification 08263CA) under chain of custody documentation.

Soil from the remaining tubes was described by the site geologist using the Unified Soil Classification System (USCS) and was screened for volatile compounds using a photoionization detector (PID). The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. After the VOCs were allowed to volatilize, the PID measured the vapor in the bag through a small hole punched in the bag. PID readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory. The PID readings are shown on the boring logs presented in Appendix B.

4.3 Decontamination and Borehole Backfilling

Drilling equipment was cleaned with an Alconox solution between sampling intervals and between borings to prevent potential cross-contamination. Following collection of the samples, each boring was backfilled with neat cement to the ground surface.

4.4 Subsurface Lithology and Hydrogeology

Sediments encountered during drilling varied significantly from boring to boring. Boring BH-FF was located in a tight space between two utility lines, and the sand encountered should be considered sand fill and not native soil. With the exception of SVW-1, water was encountered in each boring between 3.5-feet bgs and 4.5-feet bgs. This is shallower than water has ever been detected at the site, and given that this field work took place during a drought, ASE speculates that a water line may have broke unrelated to this assessment or have been leaking near the site or uphill from the site. Boring logs are presented as Appendix B.

5.0 COLLECT SOIL VAPOR SAMPLES

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. In all of the planned soil vapor sampling locations except SVW-1, water was present in the borings at depths between 3.5 and 4.5-feet bgs; therefore, none of the locations other than SVM-1 were available for soil vapor sampling from the requested depth.

On February 25, 2014, Vironex pushed soil vapor point SVW-1 to a depth of 5-feet bgs using a Geoprobe. The location is shown on Figure 2. ASE senior geologist Robert E. Kitay, P.G. directed the drilling.

The bottom of the rod contained an expendable point. Once at depth, ¼" Teflon tubing with a 1-inch screen was inserted inside the drive rod. The drive rod was then retracted approximately 6-inches separating the expendable point and the rods and creating the desired void for the sample collection membrane. Sand was then added to fill the void to 6-inches above the sample point. Above the sand, 6-inches of dry granulated bentonite was added followed by a cement sanitary seal to the surface to prevent ambient air intrusion into the borehole. A traffic rated wellbox was also installed to protect this vapor well.

The borehole was then allowed to equilibrate two hours prior to purging and sampling. A "vacuum shut in test" was then 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 sampling probe and Summa canister were placed in a shroud consisting of a plastic shroud with glove entry. Helium was then added to the shroud as a tracer gas at a minimum concentration of 15% by volume. 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 at a vacuum of approximately 100-inches of water. 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 the Summa canister for SVW-1 was very slow filling due to tight soil conditions, and the Summa canister never completely filled. 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.

6.0 ANALYTICAL RESULTS FOR SOIL

One soil sample collected from each boring, from depths between 3 and 4-feet bgs, was analyzed by McCampbell Analytical of Pittsburg, California (ELAP certification 1644) for TPH-G by EPA Method 8015, BTEX, naphthalene, and the fuel oxygenates methyl-t-butyl ether (MTBE), diisopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and tert-butanol (TBA) by EPA Method 8260B. These soil samples were also analyzed for TPH-D by EPA Method 8015 (with silica gel cleanup). The analytical results are tabulated in Table One, and the certified analytical report and chain of custody record are included in Appendix C.

- The only soil sample to contain TPH-G was the soil sample collected from 3.5-feet bgs in boring BH-BB, which contained 0.99 parts per million (ppm) TPH-G.

- The only soil samples to contain TPH-D were the soil samples collected from 3.5-feet bgs in boring BH-EE, 3.0-feet bgs in boring BH-FF, and 6.5-feet bgs in boring BH-GG. All of the detected TPH-D concentrations ranged from 1.6 ppm to 16 ppm.

- No BTEX, naphthalene or fuel oxygenates were detected in any of the samples analyzed.

These results were compared to Environmental Screening Levels (ESLs) for soil in areas where groundwater is a current or potential source of drinking water. These ESLs were presented in Table A of 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. None of the detected concentrations exceeded any ESL.

In addition, all of the total TPH concentrations (gasoline plus diesel) were well below 100 ppm, as required for soil to be considered a bioattenuation zone per the RWQCB "Low-Threat Underground Storage Tank Closure Policy" guidelines.

7.0 ANALYTICAL RESULTS FOR SOIL VAPOR SAMPLES

The vapor sample collected from SVW-1 was analyzed by Eurofins Air Toxics of Folsom, California (ELAP 02110) for TPH-G and BTEX by EPA Method TO-15 and oxygen, nitrogen, carbon dioxide, methane and helium by ASTM D1946. The analytical results are tabulated in Table Two, and the certified analytical report and chain of custody form are included in Appendix D. No helium was detected in the sample indicating that there were no leaks in the sample train and that the sample was valid.

The soil vapor sample collected from SVW-1 contained 11,000 ug/m3 TPH-G, 20 ug/m3 benzene, 120 ug/m3 toluene, 20 ug/m3 ethyl benzene, 71 ug/m3 m,p-xylenes, and 20 ug/m3 0-xylene. All hydrocarbon concentrations detected were below ESLs for both residential and commercial property. ESLs are 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.

Since the soil vapor ESLs were revised significantly since the previous soil vapor survey in 2012, ASE also compared the previous results from 2012 to the newer ESLs. The TPH-G and benzene concentrations in previous boring SVS-2 exceeded the residential ESL, and the benzene concentration slightly exceeded the commercial ESL. However, since (a) the oxygen concentration in all of the soil vapor samples exceeds 16%, which is well in excess of the required 4% minimum for a bioattenuation zone, and (b) the total petroleum hydrocarbons (gasoline plus diesel) in all borings shallower than 5-feet bgs were below 100 ppm, it appears that the low-risk soil gas criteria for sites with a bioattenuation zone may be used per the RWQCB "Low-Threat Underground Storage Tank Closure Policy" guidelines. None of the hydrocarbon concentrations detected either in the recent or the previous soil vapor survey exceeds the low-risk soil gas criteria for closure regardless of property usage.

Ratios of atmospheric gasses show slight evidence of bioremediation in SVS-1, SVS-2 and SVW-1, with slightly depleted oxygen, and slightly increased nitrogen, carbon dioxide and methane from natural atmospheric conditions. Ratios of atmospheric gasses in VMP-2 show depleted oxygen and elevated carbon dioxide; however, the nitrogen and methane concentrations do not suggest bioremediation activity. Ratios of atmospheric gasses in VMP-1 do not indicate the presence of bioremediation activity.

8.0 FORMER USTS LOCATED IN SAN PABLO AVENUE RIGHT-OF-WAY DISCOVERED DURING SEWER REPLACEMENT IN 2005

As ASE previously reported, in 2005 the City of Albany replaced a sewer line along the western side of San Pablo Avenue, and in the process found three USTs. The City of Albany referred ASE to Mr. Greg Jacobs of Jacobs Engineering, who conducted the work, to obtain further information on these USTs. Mr. Jacobs previously stated in 2005 that three USTs were encountered while installing the sewer line near the site. Two USTs were located adjacent to the gas station in the street. These USTs were left in place. One other UST, filled with cement, was located just south of the gas station. This UST was removed.

The ACHCSA requested that ASE attempt to find out additional information regarding the exact location of these USTs. ASE again contacted Mr. Greg Jacobs of Jacobs Engineers again to see if he could provide additional information on the location of these USTs. Mr. Jacobs stated that he did not have any drawings that showed the exact locations. He said that he remembered "one or two" USTs very close to the intersection of San Pablo with Washington Blvd, no farther than 10 to 15-feet from the intersection. Based on his description, ASE would guess that the location was very close to monitoring well MW-6. Mr. Jacobs did not remember how far south of the 800 San Pablo Avenue property the other UST was located.

ASE spoke with Mr. Larry Oakers, owner of United Transmission at 810 San Pablo Avenue, to determine whether he remembered the USTs being removed and their locations. He did not have any information on the USTs adjacent to the gas station. However, he remembered the exact location of the UST that was located in front of his property. This location is now been plotted on Figure 2. This location is only a few feet away from monitoring well MW-5R.

ASE believes that all possible leads on the location of these USTs have now been exhausted.

9.0 BACKGROUND RESEARCH OF 752 SAN PABLO AVENUE PROPERTY

ASE reviewed City of Albany Building Department records to determine construction details of the building foundations at 800 San Pablo Avenue (site), 752 San Pablo Avenue (Mallard Club) and 1020 Washington Avenue (apartment west of the site).

9.1 800 San Pablo Avenue

Building department records for 800 San Pablo Avenue (the site) show the foundation being concrete slab on grade. Both vinyl and tile flooring are used in this building.

9.2 1020 Washington Avenue

Building department records for 1020 Washington Avenue (the apartment building west of the site) shows the foundation consisting of concrete slab on grade. No flooring materials were noted.

9.3 752 San Pablo Avenue

Building department records for 752 San Pablo Avenue (Mallard Club) do not show the foundation construction. ASE visited the site and spoke to a bartender, who had no information on the building construction. We requested that the owner call us, but we have yet to receive a call back. ASE has made multiple additional phone calls to the club requesting a return call from the owner or manager. We have not received a return call as of the date of this report. Upon close inspection of the outside of the building, it appears that there are stairs going down into a basement. ASE has not been able to obtain further information on the foundation or to confirm the existence of a basement. During one of the phone calls to the site a bartender, upon questioning, stated that she believed that the building had a basement, but she refused to provide any additional information stating that we would have to speak to the owner.

10.0 CONCLUSIONS

Despite multiple drilling events at the site over many years, and during all seasons, and never having encountered water at depths as shallow as 5-feet bgs, all borings during this sampling event south of the centerline of Washington Avenue contained water at depth ranging from 3.5 to 4.5-feet bgs. This is especially unusual considering this fieldwork took place following a very dry winter during drought conditions. ASE speculates that this may be due to a break in a waterline near the site that may have flooded utility conduits and created a perched water-bearing zone. For this reason, it was not possible to collect any of the planned soil vapor samples south of Washington Avenue.

Only very low hydrocarbon concentrations were detected in soil samples collected from the surface to 5-foot depth in the borings drilled for this assessment. The highest concentrations were 0.99 ppm TPH-G and 16 ppm TPH-D. No BTEX, oxygenates or naphthalene were detected in any of these samples. All of the detected concentrations are below both commercial and residential ESLs. In addition, the total TPH concentrations are well below 100 ppm, indicating concentrations that would allow to top 5-feet to be considered a bioattenuation zone.

The soil vapor sample collected from SVW-1 contained 11,000 ug/m3 TPH-G, 20 ug/m3 benzene, 120 ug/m3 toluene, 20 ug/m3 ethyl benzene, 71 ug/m3 m,p-xylenes, and 20 ug/m3 0-xylene. All hydrocarbon concentrations detected were below ESLs for both residential and commercial property. In addition, since the oxygen content in all of the soil vapor samples exceeds 4%, and since the total petroleum hydrocarbons (gasoline plus diesel) in all borings shallower than 5-feet bgs were below 100 ppm, it appears that the low-risk soil gas criteria for sites with a bioattenuation zone may be used per then RWQCB "Low-Threat Underground Storage Tank Closure Policy" guidelines. None of the hydrocarbon concentrations detected either in the recent or the previous soil vapor survey exceeds the low-risk soil gas criteria for closure regardless of property usage.

ASE reviewed City of Albany Building Department records to determine construction details of the building foundations at 800 San Pablo Avenue (site), 752 San Pablo Avenue (Mallard Club) and 1020 Washington Avenue (apartment building west of the site). Both the site (800 San Pablo Avenue) and the apartment building behind the site (1020 Washington Avenue) have concrete slab on grade construction. No records were present for the foundation of 752 San Pablo Avenue (the Mallard Club) and requests for a phone call from the property owner or manager went unanswered on multiple occasions. ASE believes, however, that there is a basement in this location based on a stairway visible from the outside of the building and a comment from an employee.

It appears that the hydrocarbons that have been detected in MW-5R are related to the former UST that was located adjacent to this well, rather than the USTs that are located on-site. This is consistent with hydrocarbon concentrations being lower in groundwater samples collected in monitoring wells between MW-5R and the site than in MW-5R itself.

The location of the two USTs that were adjacent to the site appears to be very close to monitoring well MW-6. It is possible that backfill related to these USTs may be responsible for

the water levels in MW-6 often being higher than water levels in monitoring wells in rest of the site. Since no hydrocarbons were detected in groundwater samples collected from monitoring well MW-6 during the most recent sampling event, it appears that the presence of those former USTs adjacent to the site do not present a threat to human health of the environment.

11.0 RECOMMENDATIONS

ASE recommends making one further attempt to collect soil vapor samples from a 5-foot depth near BH-EE and BH-GG.

12.0 REPORT LIMITATIONS

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ASE and the party for whom this report was originally prepared. The report is an instrument of professional services and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representations, warranty, or guarantee, expressed or implied, is intended or given. To the extent that ASE relied upon any information prepared by other parties, ASE makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared has the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigation or testing and any findings presented in this report apply solely to conditions existing at the time when ASE's investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the project site may vary from those locations where data were collected. ASE's ability to interpret investigation results is related to the availability of the data and the extent of the investigational activities. As such, 100% confidence in environmental investigation conclusions cannot be reasonably achieved.

ASE therefore does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

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

Aqua Science Engineers appreciates the opportunity provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Robert E. Kitay, P.G.
Senior Geologist

Attachments: Figures 1 and 2
Tables One and Two
Appendices A through D

Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
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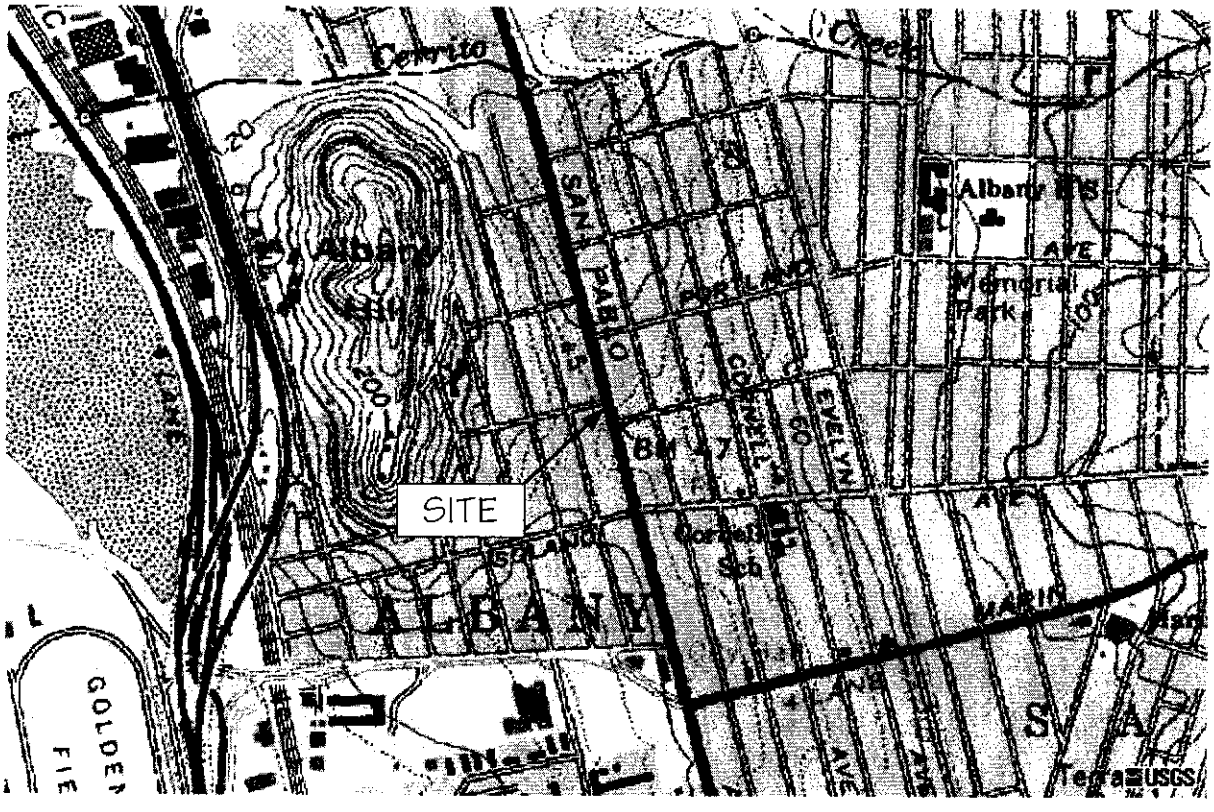
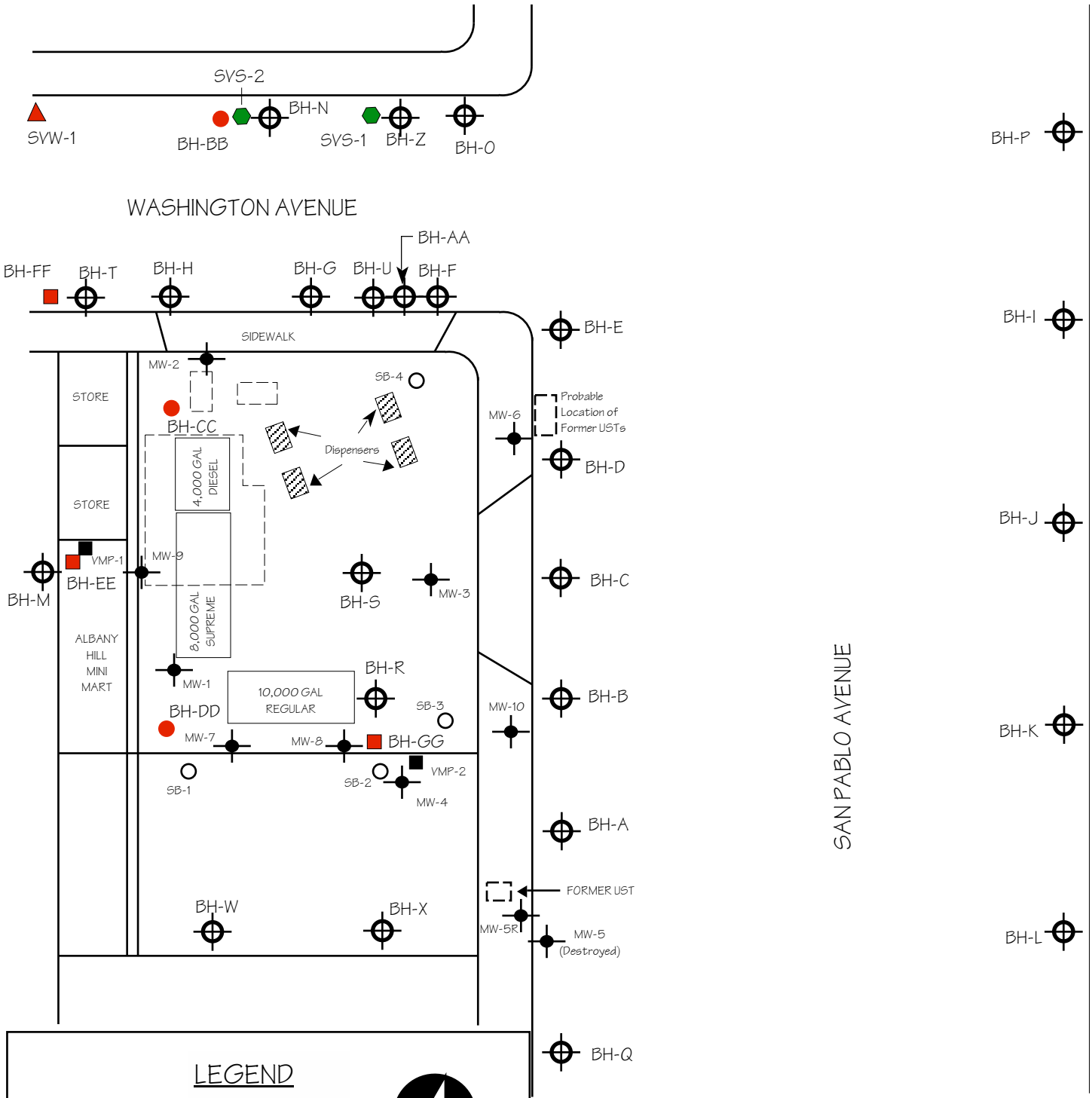
FIGURES

NORTH



LOCATION MAP	
ALBANY HILL MINI MART 800 SAN PABLO AVENUE ALBANY, CALIFORNIA	
AQUA SCIENCE ENGINEERS, INC.	Figure 1



SOIL VAPOR AND SOIL BORING LOCATION MAP

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS | Figure 2

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TABLES

TABLE ONE

Certified Analytical Results for **SOIL** Samples
Albany Hill Mini Mart
800 San Pablo Avenue, Albany, CA
All results are in **parts per million (ppm)**

Well or Boring	Sample Depth (feet)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Naphthalene	TAME	TBA	MTBE	Other VOCs
BH-BB	3.5	2/25/14	**0.99**	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0050	< 0.0050
BH-CC	4.0	2/25/14	< 0.25	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0050	< 0.0050
BH-DD	3.0	2/25/14	< 0.25	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0050	< 0.0050
BH-EE	3.5	2/25/14	< 0.25	**16**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0050	< 0.0050
BH-FF	3.0	2/25/14	< 0.25	**2.3**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0050	< 0.0050
BH-GG	3.0	2/25/14	< 0.25	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0050	< 0.0050
	6.5	2/25/14	< 0.25	**1.6**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0050	< 0.0050
SVW-1	3.0	2/25/14	< 0.25	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0050	< 0.0050
ESL (Drinking Water)			100	100	0.044	2.9	3.3	2.3	1.2	NE	0.075	0.023	Varies

Notes:

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (December 2013)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region for commercial sites where groundwater is used for drinking water (Table A) and not used for drinking water (Table A).

Most recent data in Bold.

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

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

TABLE TWO

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	Sample Depth (ft)	Date Sampled	TPH Gasoline (ug/m3)	Benzene (ug/m3)	Toluene (ug/m3)	Ethyl Benzene (ug/m3)	m,p-Xylenes (ug/m3)	o' Xylenes (ug/m3)	Naphthalene (ug/m3)	Oxygen (%)	Nitrogen (%)	Carbon Dioxide (%)	Methane (%)	Helium (%)
SVS-1	5	8/2/12	**24,000**	**12**	**86**	< 8.7	**28**	**9.4**	---	**16**	**84**	**0.42**	**0.0037**	< 0.34
SVS-2	5	8/2/12	**1,100,000**	**440**	**55**	< 37	< 37	< 37	---	**18**	**81**	**0.24**	**0.51**	< 0.086
VMP-1	1.5	8/2/12	**970**	< 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	**950**	< 2.5	< 2.9	< 3.4	< 3.4	< 3.4	---	**16**	**79**	**5.0**	< 0.00026	< 0.13
SVW-1	5	2/25/14	**11,000**	**20**	**120**	**20**	**71**	**20**	< 10	**20**	**80**	**0.42**	**0.036**	< 0.12
ESL (Residential)			300000	42	16000	490	52000	52000	36	NE	NE	NE	NE	NE
ESL (Commercial)			2500000	420	1300000	4,900	440000	440000	360	NE	NE	NE	NE	NE
Low-Risk Soil Gas Criteria (With bioattenuation zone)														
Residential			NE	85000	NE	280000	NE	NE	93000	NE	NE	NE	NE	NE
Commercial			NE	280000	NE	3600000	NE	NE	310000	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-Thread Underground Storage Tank Case Closure Policy, 2012.

NE = Not established

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APPENDIX A

Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 02/19/2014 By jamesy

Permit Numbers: W2014-0154
Permits Valid from 02/26/2014 to 02/26/2014

Application Id:	1392171440561	**City of Project Site:**	Albany
Site Location:	800 San Pablo Avenue		
Project Start Date:	02/26/2014	**Completion Date:**	02/26/2014
Assigned Inspector:	Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org		
Applicant:	Aqua Science Engineers - Robert Kitay 55 Oak Court, Suite 220, Danville, CA 94526	**Phone:**	925-820-9391
Property Owner:	Jasminder Sikand 1066 Rock Harbor Point, Hercules, CA 94547	**Phone:**	--
Client:	** same as Property Owner **		

	Total Due:	$265.00
Receipt Number: WR2014-0057	**Total Amount Paid:**	$265.00
Payer Name : David Allen	Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 1 Wells
Driller: Vironex - Lic #: 705927 - Method: DP **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2014-0154	02/19/2014	05/27/2014	VW-1	2.50 in.	1.00 in.	3.00 ft	5.00 ft

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

5. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground

Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

7. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

8. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

9. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

11. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

PERMIT NO. 14-031

City of Albany

ENCROACHMENT PERMIT
PERMANENT OR TEMPORARY CONSTRUCTION WITHIN CITY RIGHT OF WAY

LOCATION: 800 San Pablo Ave

NAME	ADDRESS	Phone No. Normal/Emergency	Business Lic. No. Workers Comp. No.
Applicant: Contractor	N/A	N/A	N/A
Owner: Jasminder + Sonia Sikand	1066 Rock Harbor Pt, Hercules, CA 94547	(510) 701-2685	N/A
Engineer / Architect:			N/A
Contractor: Aqua Science Engineers	55 Oak Ct, Ste 220, Danville, CA 94526	(925) 413-8604	4347 1969658-13 Exp 8/14

TYPE OF WORK

☐ Sidewalk ☐ Curb & Gutter ☐ Sewer ☐ Street Tree
☐ Utility Co. ☐ Permanent Structure ☒ Other: Vapor Monitoring Wells + Soil borings.

DESCRIPTION OF WORK

Drill temporary soil borings and construct soil vapor monitoring wells.

REQUIRED CONDITIONS

1. All work shall be in accordance with the attached standard conditions.
2. No refund after 120 days or work begins; 70% of fee refundable within 120 days provided no work has begun.
3. Permanent structures require City Council approval (City Code 14-2).
4. CALL USA 1-800-227-2600 before excavating.
5. Call for Final Inspection and Sign-Off 48 hr. in advance at ☒ (510) 528-5760 ☐ ~~(510) 524-0543~~.
6. Special Conditions may be imposed following City review and ~~prior to issuance of~~ this permit.

Contractor's Signature: R. J. C. Kilty Date: 10-15-13

STAFF USE ONLY

Permit Fee Computation

Total construction cost subject to fee:	
New construction at 8% of construction cost	
In-Lieu slurry seal fee (when street is out)	
Minimum fee per schedule (if greater than % fee)	
Total Fee due (transfer to fee schedule from) (Utilities to be billed, copy of permit to Finance)	$154.65

Special Conditions: All work per City Standard Details; any sidewalk concrete removed must be replaced with 14 days.

Issued by: _____ Date: 1/30/14

Permit Expiration Date: 7/30/14 (not to exceed 180 days from date issued)

Final Sign Off by: _____ Date: _____

City of Albany

PERMIT NO. 14-031

SPECIAL PROVISIONS FOR ENCROACHMENT PERMIT FOR PERMANENT IMPROVEMENT IN CITY RIGHT-OF-WAY

LOCATION: 800 San Pablo Ave

This APPLICATION MUST BE ACCOMPANIED by the DATA and PLANS indicated below:

- ☐ Description of Job
- ☐ APPROVED Construction Plans and/or Documents
- ☐ An Engineer's Estimate of the value of all public improvements and utility services within the public right-of-way
- ☐ A Soils Report prepared by a Registered Civil Engineer
- ☐ Others: Specify _____

ALL FEES SHALL BE PAID AND DEPOSITS MADE PRIOR TO THE ISSUANCE OF THIS PERMIT: except Utility Companies. Utility Companies will be invoiced.

Standards/Specification:
The following conditions and provisions of the Albany Municipal Code apply to this permit. All work shall be in accordance with City Standard Specifications and Drawings.

Commencement of Work
The permittee shall begin the work or use authorized by a permit issued pursuant to this chapter within ninety (90) days from the date of the issuance unless a different period is stated in the permit, or an extension of time is granted by the Director of Community Development * Environmental Resources. If the work or use is not begun accordingly, the permit shall become void.

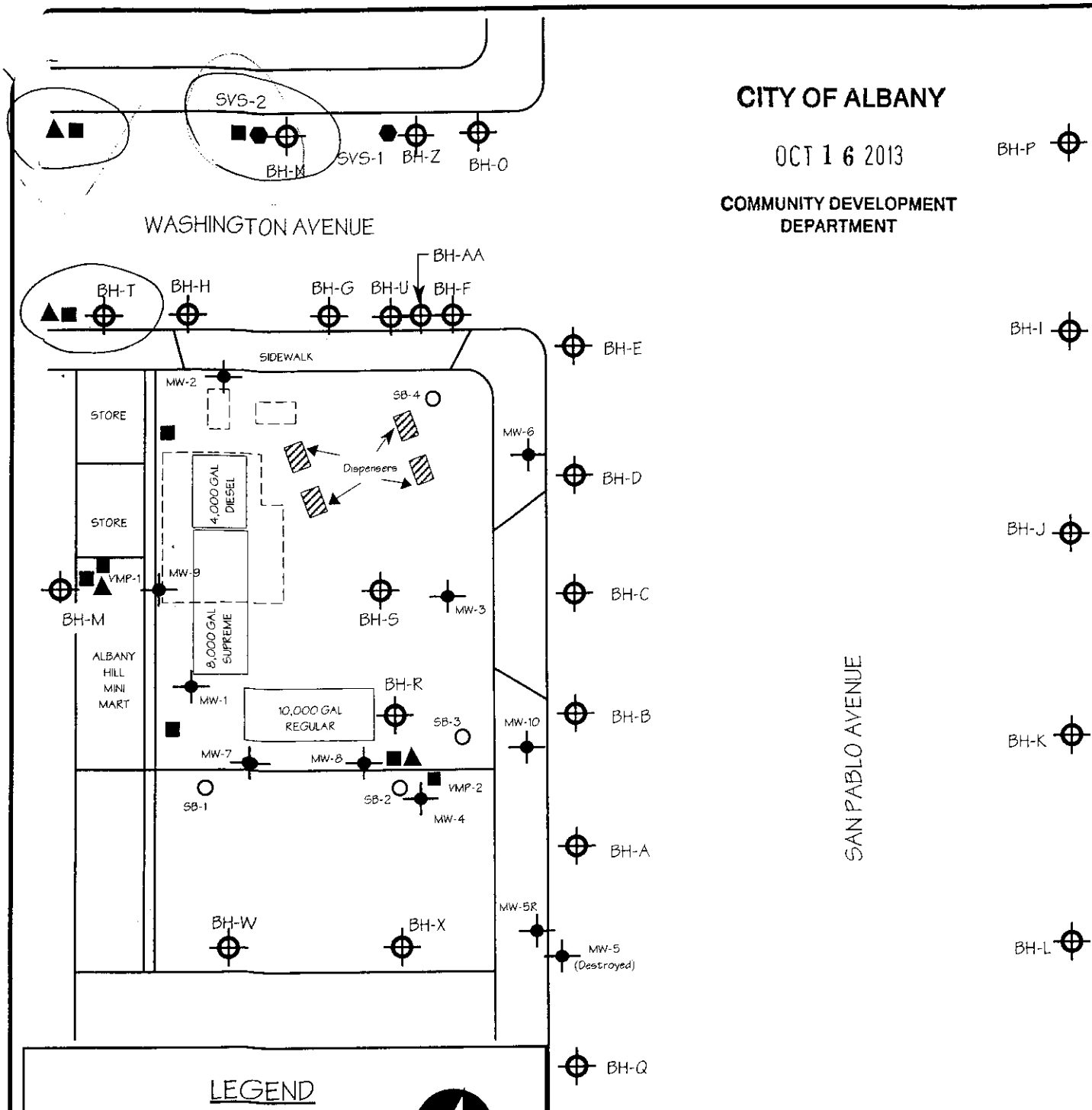
INSPECTION
In general, inspection producers and requirements shall be as established by the Director of Community Development & Environmental Resources. Unless specifically exempted by the City Code, no encroachment work shall take place without inspection by the Director of Community Development & Environmental Resources or his/her authorized agent. Inspections by the City must be requested at least TWENTY-FOUR (24) HOURS (excluding weekends) IN ADVANCE of the work to be performed. No work shall be performed on weekends without PRIOR AUTHORIZATION of the Director of Community Development & Environmental Resources.

DISPLAY OF PERMIT
The permittee shall keep a copy of this permit at the site of the work, or in the cab of a vehicle when movement on a public street is involved. The permit shall be shown to any authorized representative of the Director of Community Development & Environmental Resources or Law Enforcement Officer on demand.

ACCEPTANCE OF PERMIT BY APPLICANT
Acceptance by the applicant of the permit shall be conclusive evidence of the reasonableness of the terms imposed and shall constitute a waiver of any right to legislative determination thereof..

NON-ASSIGNMENT OF PERMIT
Permits shall only be issued only to the person making application and may not be assigned to another person by the permittee. If any permittee assigns his permit to another, the permit will be revoked.

CHANGES IN PERMIT AND WORK



CITY OF ALBANY

OCT 16 2013

COMMUNITY DEVELOPMENT DEPARTMENT

LEGEND

MW-2 — MONITORING WELL

SB-2 — AARS SOIL BORING

BH-A — ASE ADVANCED SOIL BORING

SOIL VAPOR SURVEY LOCATION

PROPOSED SOIL VAPOR LOCATION

PROPOSED SOIL BORING

NORTH

SCALE: 1" = 20'

PROPOSED SOIL VAPOR AND SOIL BORING LOCATION MAP

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS | Figure 2

City of Albany

Date: 01/30/14

Special Conditions

Encroachment Permit for

Drilling 3-2" diameter borings to obtain soil/groundwater and gas samples at around gas station located at 800 San Pablo Avenue at the Washington side.

1. All exploratory holes (wells and borings) construction and destruction under this permit are subject to the standards for the construction of Wells in the Alameda County Public Works Agency Guidelines, Policies & Procedures, the State Water Well Standards, and any instruction by the Health Department. Applicant is required to submit a copy of the Alameda county Permit before any drilling is done.
2. All drill cuttings and boring development water and soil shall be properly and legally handled and disposed of.
3. All soil boring must be completely filled with cement grout mixture. The top 6"of the borings shall be backfilled to match original surface material. The applicant shall be responsible for the replacement of any and all obliterated or removed pavement markers or stripping.
4. Provide for traffic control and pedestrian safety and lane closures per the General Provisions of the City and Caltrans Standard Specifications (T-13 – attached).
5. No open excavations shall be left unsupervised. All excavations shall be back filled or covered at the end the working day.
6. Post for no parking in advance per City requirements. (Minimum of 48 hours)
7. Prior to drilling, notify USA to identify any potential drilling obstructions.
8. Conform to the requirements of the City's monument preservation plan. Any survey monument encountered shall be referenced and preserved or restored per State law.
9. Do not drill within 5 feet of existing sanitary sewers main or laterals and other utilities.
10. Attention is directed to City Sanitary Sewer and Storm Drain Maintenance Maps at these locations.
11. Permitee shall be responsible for full compliance with the City's Storm Water program and the Alameda County NPDES permit requirements. For additional information, visit the Alameda Countywide Clean Water Program at http://www.cleanwaterprogram.org
12. Contact the City's Inspector at 510-528-5760 to schedule inspection a minimum of 48 hours in advance of drilling.

Office: 548 Cleveland Avenue, Albany, CA 94710
Mail: 1000 San Pablo Avenue, Albany, CA 94706
phone 510-524-3751
fax 510-558-3201

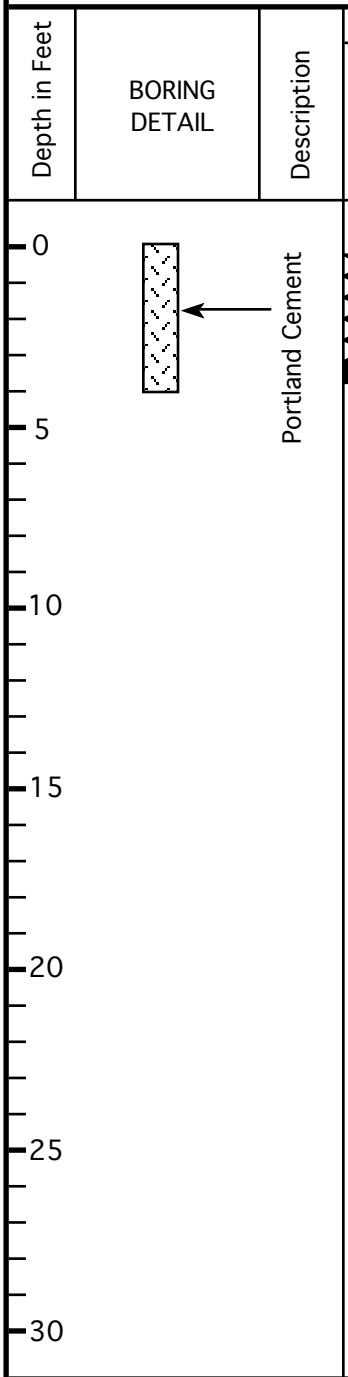
Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX B

Boring Logs

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS		BORING: BH-BB
Project Name: Albany Hill	Project Location: 800 San Pablo Ave, Albany, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Robert Kitay	Date Drilled: February 25, 2014	Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA	
Depth of Water First Encountered: NA	Total Depth of Well Completed: NA
	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 4'	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler

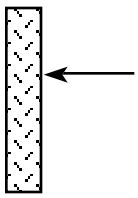


Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Asphalt/Base
	Silty CLAY (CH); olive; moist; stiff; 70% clay; 30% silt; trace gravel; moderate plasticity; very low estimated K; no odor
5	End of boring
10	
15	
20	
25	
30	

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS		BORING: BH-CC
Project Name: Albany Hill	Project Location: 800 San Pablo Ave, Albany, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Robert Kitay, P.G.	Date Drilled: February 25, 2014	Checked By: Robert E. Kitay, P.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 4.5'	Total Depth of Well Completed: NA
	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 5'	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler

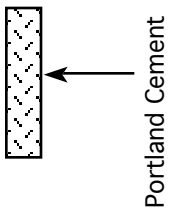
Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA: Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log	Depth in Feet	DESCRIPTION OF LITHOLOGY (standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.)
0		Portland Cement			0			0	Asphalt/Base
									Silty CLAY (CH); olive; moist; stiff; 80% clay; 20% silt; trace gravel; moderate plasticity; very low estimated K; no odor
5								5	wet at 4.5'
									End of boring
10								10	
15								15	
20								20	
25								25	
30								30	

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS		BORING: BH-DD
Project Name: Albany Hill	Project Location: 800 San Pablo Ave, Albany, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Robert Kitay, P.G.	Date Drilled: February 25, 2014	Checked By: Robert E. Kitay, P.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 3.5'	Total Depth of Well Completed: NA
	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 4'	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler

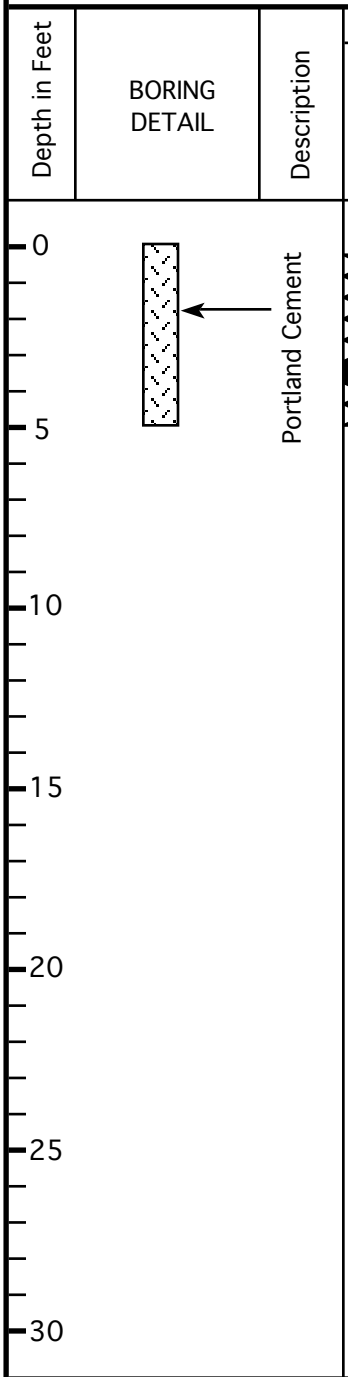
Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA: Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log	Depth in Feet	DESCRIPTION OF LITHOLOGY (standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.)
0								0	Asphalt/Base
		Portland Cement			0				Silty CLAY (CH); olive; moist; stiff; 80% clay; 20% silt; trace gravel; moderate plasticity; very low estimated K; no odor
5								5	Sandy SILT (ML); yellow brown; wet; medium stiff; 70% silt; 25% fine sand; 5% clay; non-plastic; low estimated K; no odor
									End of boring
10								10	
15								15	
20								20	
25								25	
30								30	



AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS		BORING: BH-EE
Project Name: Albany Hill	Project Location: 800 San Pablo Ave, Albany, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Robert Kitay, P.G.	Date Drilled: February 25, 2014	Checked By: Robert E. Kitay, P.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 4'	Total Depth of Well Completed: NA
	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 5'	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler



SOIL/ROCK SAMPLE DATA

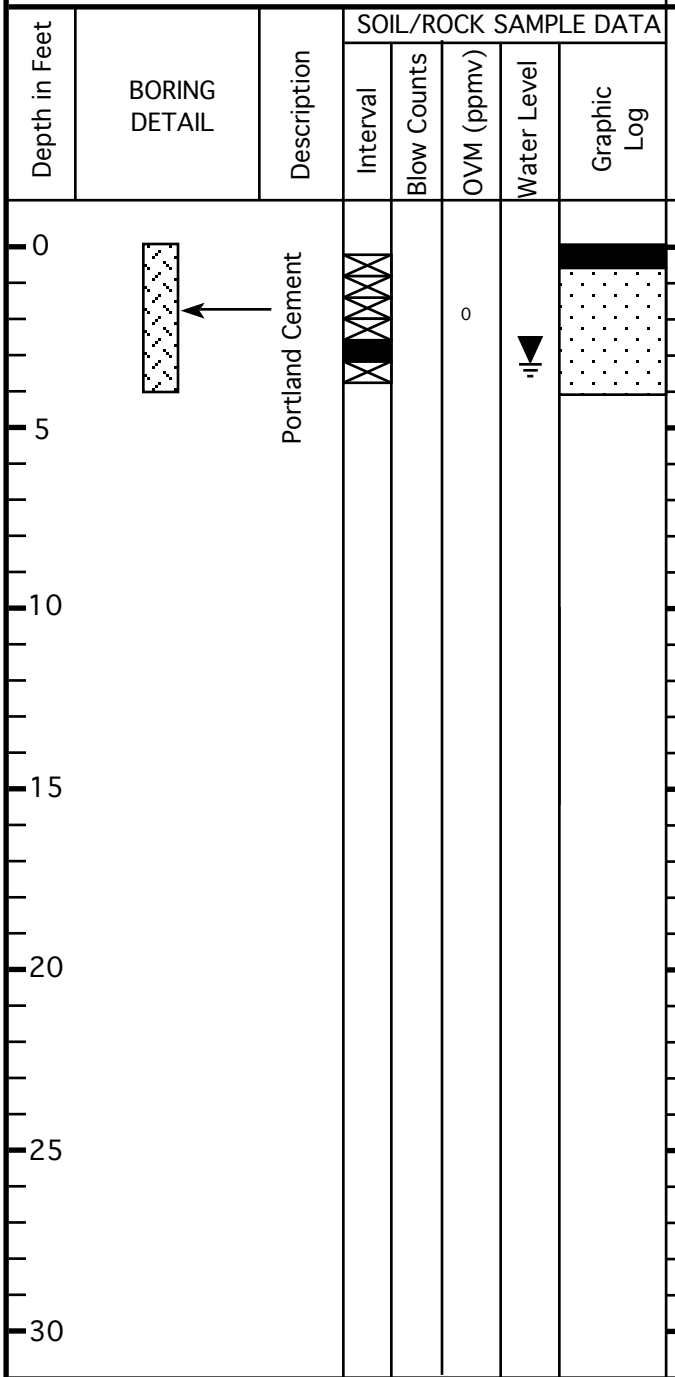
Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log
		0		

Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Concrete
	Silty SAND (SM); yellow brown; dry; medium dense; 70% fine sand; 30% silt; high estimated K; no odor
5	Silty CLAY (CH); olive; moist; stiff; 80% clay; 20% silt; trace gravel; moderate plasticity; very low estimated K; no odor
	End of boring

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS		BORING: BH-FF
Project Name: Albany Hill	Project Location: 800 San Pablo Ave, Albany, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Robert Kitay	Date Drilled: February 25, 2014	Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 3.5'	Total Depth of Well Completed: NA
	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 4'	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler

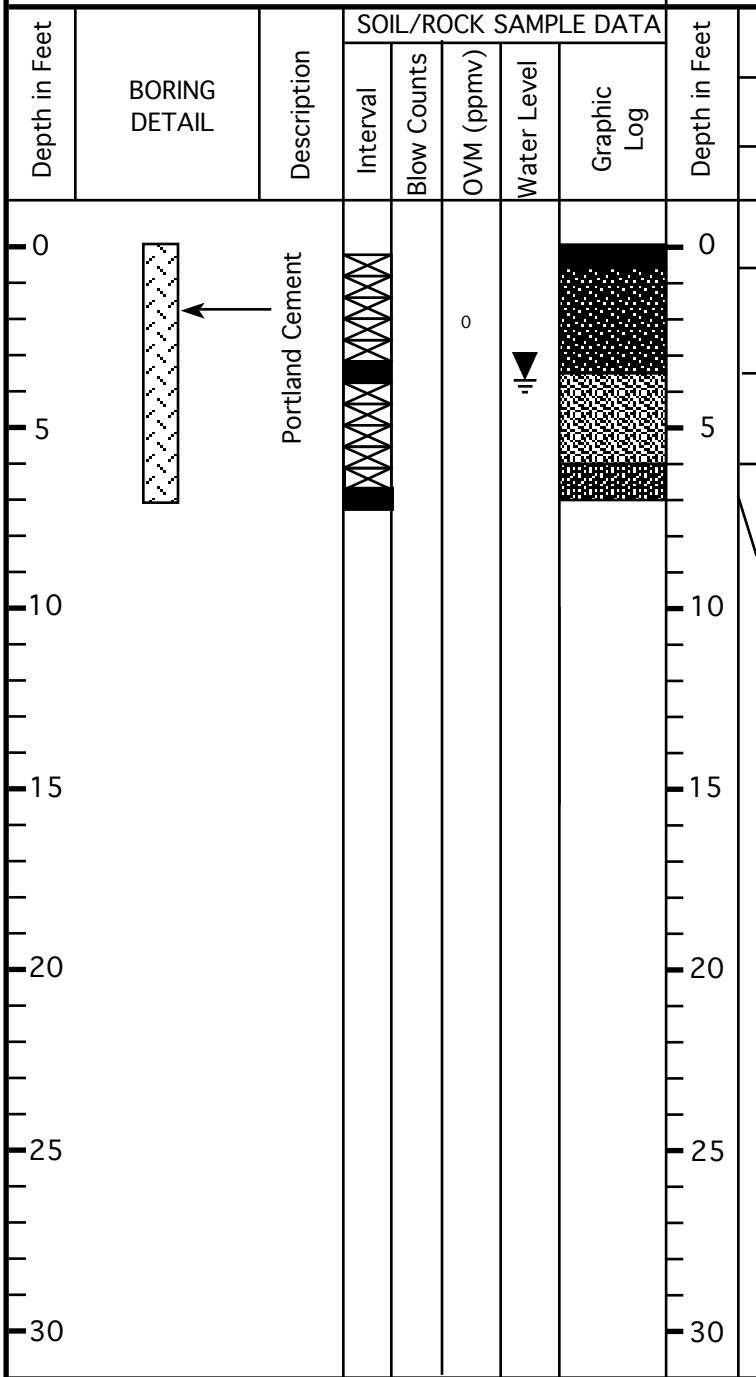


Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Asphalt/Base
	SAND (SP); yellow brown; moist; loose; 100% medium sand; very high estimated K; no odor wet at 3.5'
5	End of boring
10	
15	
20	
25	
30	

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS		BORING: BH-GG
Project Name: Albany Hill	Project Location: 800 San Pablo Ave, Albany, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Robert Kitay, P.G.	Date Drilled: February 25, 2014	Checked By: Robert E. Kitay, P.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 3.5'	Total Depth of Well Completed: NA
	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 7'	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler



Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Asphalt/Base
	Silty CLAY (CH); olive; moist; stiff; 80% clay; 20% silt; trace gravel; moderate plasticity; very low estimated K; no odor
5	Sandy SILT (ML); yellow brown; wet; medium stiff; 70% silt; 25% fine sand; 5% clay; non-plastic; low estimated K; no odor
	Clayey SAND (SC); light brown; damp; loose; 70% fine sand; 25% clay; 5% silt; low plasticity; low estimated K; no odor
10	End of boring
15	
20	
25	
30	

AQUA SCIENCE ENGINEERS, INC.

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

APPENDIX C

Certified Analytical Report
and
Chain of Custody Documentation
For Soil Samples

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1402A23

Report Created for: Aqua Science Engineers, Inc.
55 Oak Court Suite 220
Danville, CA 94526

Project Contact: Robert Kitay
Project P.O.:
Project Name: #3934; Albany Hill Mini Mart

Project Received: 02/28/2014

Analytical Report reviewed & approved for release on 03/06/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com
NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Aqua Science Engineers, Inc.
Project: #3934; Albany Hill Mini Mart
WorkOrder: 1402A23

Glossary Abbreviation	Description
95% Interval	95% Confident Interval
DF	Dilution Factor
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
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
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
TEQ	Toxicity Equivalence

Analytical Qualifier	
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Project:	#3934; Albany Hill Mini Mart	**Extraction Method**	SW5030B
Date Received:	2/28/14 15:21	**Analytical Method:**	SW8260B
Date Prepared:	2/28/14	**Unit:**	mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-BB 3.5'	**1402A23-001A**	**Soil**	**02/25/2014 14:00**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**0.99**	0.25	1	02/28/2014 23:20

Surrogates	REC (%)	Limits	
Toluene-d8	106	70-130	02/28/2014 23:20

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-CC 4.0'	**1402A23-002A**	**Soil**	**02/25/2014 14:30**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	03/01/2014 00:03

Surrogates	REC (%)	Limits	
Toluene-d8	108	70-130	03/01/2014 00:03

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-DD 3.0'	**1402A23-003A**	**Soil**	**02/25/2014 16:57**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	03/01/2014 00:46

Surrogates	REC (%)	Limits	
Toluene-d8	107	70-130	03/01/2014 00:46

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-EE 3.5'	**1402A23-004A**	**Soil**	**02/25/2014 15:40**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	03/01/2014 01:29

Surrogates	REC (%)	Limits	
Toluene-d8	107	70-130	03/01/2014 01:29

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-FF 3.0'	**1402A23-005A**	**Soil**	**02/25/2014 13:19**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	03/01/2014 02:12

Surrogates	REC (%)	Limits	
Toluene-d8	106	70-130	03/01/2014 02:12

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Project:	#3934; Albany Hill Mini Mart	**Extraction Method**	SW5030B
Date Received:	2/28/14 15:21	**Analytical Method:**	SW8260B
Date Prepared:	2/28/14	**Unit:**	mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-GG 3.0'	**1402A23-006A**	**Soil**	**02/25/2014 10:09**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	03/01/2014 02:55

Surrogates	REC (%)	Limits	
Toluene-d8	105	70-130	03/01/2014 02:55

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-GG 6.5'	**1402A23-007A**	**Soil**	**02/25/2014 10:25**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	03/01/2014 03:38

Surrogates	REC (%)	Limits	
Toluene-d8	106	70-130	03/01/2014 03:38

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SVW-1 3.0'	**1402A23-008A**	**Soil**	**02/25/2014 11:30**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	03/01/2014 04:21

Surrogates	REC (%)	Limits	
Toluene-d8	105	70-130	03/01/2014 04:21

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Analytical Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Project:	#3934; Albany Hill Mini Mart	**Extraction Method**	SW5030B
Date Received:	2/28/14 15:21	**Analytical Method:**	SW8260B
Date Prepared:	2/28/14	**Unit:**	mg/kg

MTBE and BTEX by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-BB 3.5'	**1402A23-001A**	**Soil**	**02/25/2014 14:00**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	02/28/2014 23:20
Benzene	ND	0.0050	1	02/28/2014 23:20
t-Butyl alcohol (TBA)	ND	0.050	1	02/28/2014 23:20
Diisopropyl ether (DIPE)	ND	0.0050	1	02/28/2014 23:20
Ethylbenzene	ND	0.0050	1	02/28/2014 23:20
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	02/28/2014 23:20
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	02/28/2014 23:20
Naphthalene	ND	0.0050	1	02/28/2014 23:20
Toluene	ND	0.0050	1	02/28/2014 23:20
Xylenes, Total	ND	0.0050	1	02/28/2014 23:20
Surrogates	REC (%)	Limits		
Dibromofluoromethane	106	70-130		02/28/2014 23:20
Toluene-d8	100	70-130		02/28/2014 23:20

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-CC 4.0'	**1402A23-002A**	**Soil**	**02/25/2014 14:30**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/01/2014 00:03
Benzene	ND	0.0050	1	03/01/2014 00:03
t-Butyl alcohol (TBA)	ND	0.050	1	03/01/2014 00:03
Diisopropyl ether (DIPE)	ND	0.0050	1	03/01/2014 00:03
Ethylbenzene	ND	0.0050	1	03/01/2014 00:03
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/01/2014 00:03
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/01/2014 00:03
Naphthalene	ND	0.0050	1	03/01/2014 00:03
Toluene	ND	0.0050	1	03/01/2014 00:03
Xylenes, Total	ND	0.0050	1	03/01/2014 00:03
Surrogates	REC (%)	Limits		
Dibromofluoromethane	107	70-130		03/01/2014 00:03
Toluene-d8	101	70-130		03/01/2014 00:03

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Analytical Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Project:	#3934; Albany Hill Mini Mart	**Extraction Method**	SW5030B
Date Received:	2/28/14 15:21	**Analytical Method:**	SW8260B
Date Prepared:	2/28/14	**Unit:**	mg/kg

MTBE and BTEX by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-DD 3.0'	**1402A23-003A**	**Soil**	**02/25/2014 16:57**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/01/2014 00:46
Benzene	ND	0.0050	1	03/01/2014 00:46
t-Butyl alcohol (TBA)	ND	0.050	1	03/01/2014 00:46
Diisopropyl ether (DIPE)	ND	0.0050	1	03/01/2014 00:46
Ethylbenzene	ND	0.0050	1	03/01/2014 00:46
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/01/2014 00:46
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/01/2014 00:46
Naphthalene	ND	0.0050	1	03/01/2014 00:46
Toluene	ND	0.0050	1	03/01/2014 00:46
Xylenes, Total	ND	0.0050	1	03/01/2014 00:46

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	03/01/2014 00:46
Toluene-d8	100	70-130	03/01/2014 00:46

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-EE 3.5'	**1402A23-004A**	**Soil**	**02/25/2014 15:40**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/01/2014 01:29
Benzene	ND	0.0050	1	03/01/2014 01:29
t-Butyl alcohol (TBA)	ND	0.050	1	03/01/2014 01:29
Diisopropyl ether (DIPE)	ND	0.0050	1	03/01/2014 01:29
Ethylbenzene	ND	0.0050	1	03/01/2014 01:29
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/01/2014 01:29
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/01/2014 01:29
Naphthalene	ND	0.0050	1	03/01/2014 01:29
Toluene	ND	0.0050	1	03/01/2014 01:29
Xylenes, Total	ND	0.0050	1	03/01/2014 01:29

Surrogates	REC (%)	Limits	
Dibromofluoromethane	106	70-130	03/01/2014 01:29
Toluene-d8	101	70-130	03/01/2014 01:29

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Analytical Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Project:	#3934; Albany Hill Mini Mart	**Extraction Method**	SW5030B
Date Received:	2/28/14 15:21	**Analytical Method:**	SW8260B
Date Prepared:	2/28/14	**Unit:**	mg/kg

MTBE and BTEX by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-FF 3.0'	**1402A23-005A**	**Soil**	**02/25/2014 13:19**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/01/2014 02:12
Benzene	ND	0.0050	1	03/01/2014 02:12
t-Butyl alcohol (TBA)	ND	0.050	1	03/01/2014 02:12
Diisopropyl ether (DIPE)	ND	0.0050	1	03/01/2014 02:12
Ethylbenzene	ND	0.0050	1	03/01/2014 02:12
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/01/2014 02:12
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/01/2014 02:12
Naphthalene	ND	0.0050	1	03/01/2014 02:12
Toluene	ND	0.0050	1	03/01/2014 02:12
Xylenes, Total	ND	0.0050	1	03/01/2014 02:12

Surrogates	REC (%)	Limits	
Dibromofluoromethane	109	70-130	03/01/2014 02:12
Toluene-d8	100	70-130	03/01/2014 02:12

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-GG 3.0'	**1402A23-006A**	**Soil**	**02/25/2014 10:09**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/01/2014 02:55
Benzene	ND	0.0050	1	03/01/2014 02:55
t-Butyl alcohol (TBA)	ND	0.050	1	03/01/2014 02:55
Diisopropyl ether (DIPE)	ND	0.0050	1	03/01/2014 02:55
Ethylbenzene	ND	0.0050	1	03/01/2014 02:55
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/01/2014 02:55
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/01/2014 02:55
Naphthalene	ND	0.0050	1	03/01/2014 02:55
Toluene	ND	0.0050	1	03/01/2014 02:55
Xylenes, Total	ND	0.0050	1	03/01/2014 02:55

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	03/01/2014 02:55
Toluene-d8	99	70-130	03/01/2014 02:55

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Analytical Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Project:	#3934; Albany Hill Mini Mart	**Extraction Method**	SW5030B
Date Received:	2/28/14 15:21	**Analytical Method:**	SW8260B
Date Prepared:	2/28/14	**Unit:**	mg/kg

MTBE and BTEX by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-GG 6.5'	**1402A23-007A**	**Soil**	**02/25/2014 10:25**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/01/2014 03:38
Benzene	ND	0.0050	1	03/01/2014 03:38
t-Butyl alcohol (TBA)	ND	0.050	1	03/01/2014 03:38
Diisopropyl ether (DIPE)	ND	0.0050	1	03/01/2014 03:38
Ethylbenzene	ND	0.0050	1	03/01/2014 03:38
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/01/2014 03:38
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/01/2014 03:38
Naphthalene	ND	0.0050	1	03/01/2014 03:38
Toluene	ND	0.0050	1	03/01/2014 03:38
Xylenes, Total	ND	0.0050	1	03/01/2014 03:38

Surrogates	REC (%)	Limits	
Dibromofluoromethane	108	70-130	03/01/2014 03:38
Toluene-d8	100	70-130	03/01/2014 03:38

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SVW-1 3.0'	**1402A23-008A**	**Soil**	**02/25/2014 11:30**	**GC16**	**87613**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/01/2014 04:21
Benzene	ND	0.0050	1	03/01/2014 04:21
t-Butyl alcohol (TBA)	ND	0.050	1	03/01/2014 04:21
Diisopropyl ether (DIPE)	ND	0.0050	1	03/01/2014 04:21
Ethylbenzene	ND	0.0050	1	03/01/2014 04:21
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/01/2014 04:21
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/01/2014 04:21
Naphthalene	ND	0.0050	1	03/01/2014 04:21
Toluene	ND	0.0050	1	03/01/2014 04:21
Xylenes, Total	ND	0.0050	1	03/01/2014 04:21

Surrogates	REC (%)	Limits	
Dibromofluoromethane	108	70-130	03/01/2014 04:21
Toluene-d8	99	70-130	03/01/2014 04:21

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Analytical Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Project:	#3934; Albany Hill Mini Mart	**Extraction Method**	SW3550B/3630C
Date Received:	2/28/14 15:21	**Analytical Method:**	SW8015B
Date Prepared:	2/28/14	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-BB 3.5'	**1402A23-001A**	**Soil**	**02/25/2014 14:00**	**GC6A**	**87614**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/02/2014 04:47

Surrogates	REC (%)	Limits	
C9	109	70-130	03/02/2014 04:47

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-CC 4.0'	**1402A23-002A**	**Soil**	**02/25/2014 14:30**	**GC6B**	**87614**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/01/2014 15:26

Surrogates	REC (%)	Limits	
C9	112	70-130	03/01/2014 15:26

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-DD 3.0'	**1402A23-003A**	**Soil**	**02/25/2014 16:57**	**GC6B**	**87614**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/02/2014 04:47

Surrogates	REC (%)	Limits	
C9	115	70-130	03/02/2014 04:47

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-EE 3.5'	**1402A23-004A**	**Soil**	**02/25/2014 15:40**	**GC6B**	**87614**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**16**	1.0	1	03/02/2014 05:59

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2	
C9	114	70-130		03/02/2014 05:59

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-FF 3.0'	**1402A23-005A**	**Soil**	**02/25/2014 13:19**	**GC6B**	**87614**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**2.3**	1.0	1	03/01/2014 21:32

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2	
C9	113	70-130		03/01/2014 21:32

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Analytical Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Project:	#3934; Albany Hill Mini Mart	**Extraction Method**	SW3550B/3630C
Date Received:	2/28/14 15:21	**Analytical Method:**	SW8015B
Date Prepared:	2/28/14	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-GG 3.0'	**1402A23-006A**	**Soil**	**02/25/2014 10:09**	**GC6B**	**87614**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/01/2014 22:45

Surrogates	REC (%)	Limits	
C9	113	70-130	03/01/2014 22:45

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BH-GG 6.5'	**1402A23-007A**	**Soil**	**02/25/2014 10:25**	**GC6A**	**87614**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**1.6**	1.0	1	03/02/2014 05:59

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2	
C9	111	70-130		03/02/2014 05:59

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SVW-1 3.0'	**1402A23-008A**	**Soil**	**02/25/2014 11:30**	**GC6B**	**87614**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/01/2014 23:58

Surrogates	REC (%)	Limits	
C9	113	70-130	03/01/2014 23:58

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Quality Control Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Date Prepared:	2/28/14	**BatchID:**	87613
Date Analyzed:	3/3/14	**Extraction Method**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#3934; Albany Hill Mini Mart	**Sample ID:**	MB/LCS-87613 1402A23-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.03867	0.0050	0.050	-	77.3	70-130
Benzene	ND	0.04677	0.0050	0.050	-	93.5	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.1596	0.050	0.20	-	79.8	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.05041	0.0050	0.050	-	101	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.04417	0.0040	0.050	-	88.3	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.04057	0.0040	0.050	-	81.1	70-130
1,1-Dichloroethene	ND	0.03873	0.0050	0.050	-	77.5	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

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Quality Control Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Date Prepared:	2/28/14	**BatchID:**	87613
Date Analyzed:	3/3/14	**Extraction Method**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#3934; Albany Hill Mini Mart	**Sample ID:**	MB/LCS-87613 1402A23-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.03899	0.0050	0.050	-	78	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.03971	0.0050	0.050	-	79.4	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.04092	0.0050	0.050	-	81.8	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.05156	0.0050	0.050	-	103	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.05014	0.0050	0.050	-	100	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	0.1107	0.1569		0.18	89	90	70-130
Toluene-d8	0.155	0.2118		0.18	124	121	70-130
4-BFB	0.01293	0.01816		0.018	103	104	70-130

(Cont.)

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Quality Control Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Date Prepared:	2/28/14	**BatchID:**	87613
Date Analyzed:	3/3/14	**Extraction Method**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#3934; Albany Hill Mini Mart	**Sample ID:**	MB/LCS-87613 1402A23-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.03283	0.03347	0.050	ND	65.7,F1	66.9,F1	70-130	1.94	30
Benzene	0.03749	0.03904	0.050	ND	75	78.1	70-130	4.06	30
t-Butyl alcohol (TBA)	0.1319	0.1401	0.20	ND	66,F1	70	70-130	6.00	30
Chlorobenzene	0.04106	0.04323	0.050	ND	82.1	86.5	70-130	5.13	30
1,2-Dibromoethane (EDB)	0.0373	0.03763	0.050	ND	74.6	75.3	70-130	0.896	30
1,2-Dichloroethane (1,2-DCA)	0.03293	0.03405	0.050	ND	65.9,F1	68.1,F1	70-130	3.33	30
1,1-Dichloroethene	0.0297	0.02922	0.050	ND	59.4,F1	58.4,F1	70-130	1.64	30
Diisopropyl ether (DIPE)	0.03171	0.03346	0.050	ND	63.4,F1	66.9,F1	70-130	5.35	30
Ethyl tert-butyl ether (ETBE)	0.03235	0.03343	0.050	ND	64.7,F1	66.9,F1	70-130	3.29	30
Methyl-t-butyl ether (MTBE)	0.0382	0.03919	0.050	ND	76.4	78.4	70-130	2.57	30
Toluene	0.04071	0.04181	0.050	ND	81.4	83.6	70-130	2.65	30
Trichloroethene	0.04062	0.04244	0.050	ND	81.2	84.9	70-130	4.39	30
Surrogate Recovery									
Dibromofluoromethane	0.149	0.1527	0.18		85	87	70-130	2.50	30
Toluene-d8	0.1959	0.1981	0.18		112	113	70-130	1.11	30
4-BFB	0.01724	0.01751	0.018		99	100	70-130	1.57	30

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Quality Control Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Date Prepared:	2/28/14	**BatchID:**	87613
Date Analyzed:	3/3/14	**Extraction Method**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#3934; Albany Hill Mini Mart	**Sample ID:**	MB/LCS-87613 1402A23-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	-	0.0050	-	-	-	-
Benzene	ND	0.04677	0.0050	0.050	-	93.5	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	-	0.050	-	-	-	-
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	-	0.0050	-	-	-	-
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	-	0.0040	-	-	-	-
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	-	0.0040	-	-	-	-
1,1-Dichloroethene	ND	-	0.0050	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)

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Quality Control Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Date Prepared:	2/28/14	**BatchID:**	87613
Date Analyzed:	3/3/14	**Extraction Method**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#3934; Albany Hill Mini Mart	**Sample ID:**	MB/LCS-87613 1402A23-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	-	0.0050	-	-	-	-
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	-	0.0050	-	-	-	-
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.04092	0.0050	0.050	-	81.8	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.05156	0.0050	0.050	-	103	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	-	0.0050	-	-	-	-
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	0.1107	0.1569		0.18	89	90	70-130
Toluene-d8	0.155	0.2118		0.18	124	121	70-130
4-BFB	0.01293	-		0.0125	103	-	-

(Cont.)

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Quality Control Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Date Prepared:	2/28/14	**BatchID:**	87613
Date Analyzed:	3/3/14	**Extraction Method**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#3934; Albany Hill Mini Mart	**Sample ID:**	MB/LCS-87613 1402A23-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Benzene	0.03749	0.03904	0.050	ND	75	78.1	70-130	4.06	30
Methyl-t-butyl ether (MTBE)	0.0382	0.03919	0.050	ND	76.4	78.4	70-130	2.57	30
Toluene	0.04071	0.04181	0.050	ND	81.4	83.6	70-130	2.65	30
Surrogate Recovery									
Dibromofluoromethane	0.149	0.1527	0.18		85	87	70-130	2.50	30
Toluene-d8	0.1959	0.1981	0.18		112	113	70-130	1.11	30

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Quality Control Report

Client:	Aqua Science Engineers, Inc.	**WorkOrder:**	1402A23
Date Prepared:	2/28/14	**BatchID:**	87614
Date Analyzed:	3/1/14	**Extraction Method**	SW3550B/3630C
Instrument:	GC6B	**Analytical Method:**	SW8015B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#3934; Albany Hill Mini Mart	**Sample ID:**	MB/LCS-87614 1402A23-002AMS/MSD

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	44.36	1.0	40	-	111	70-130
Surrogate Recovery							
C9	27.54	26.98		25	110	108	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	40.34	41.6	40	ND	101	104	70-130	3.07	30
Surrogate Recovery									
C9	27.72	28.04	25		111	112	70-130	1.13	30

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1402A23 **ClientCode: ASED**

☐ 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:
PO:
ProjectNo: #3934; Albany Hill Mini Mart

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

Requested TAT: 5 days

Date Received: **02/28/2014**
Date Printed: **02/28/2014**

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
1402A23-001	BH-BB 3.5'	Soil	2/25/2014 14:00	☐	A	A	A									
1402A23-002	BH-CC 4.0'	Soil	2/25/2014 14:30	☐	A		A									
1402A23-003	BH-DD 3.0'	Soil	2/25/2014 16:57	☐	A		A									
1402A23-004	BH-EE 3.5'	Soil	2/25/2014 15:40	☐	A		A									
1402A23-005	BH-FF 3.0'	Soil	2/25/2014 13:19	☐	A		A									
1402A23-006	BH-GG 3.0'	Soil	2/25/2014 10:09	☐	A		A									
1402A23-007	BH-GG 6.5'	Soil	2/25/2014 10:25	☐	A		A									
1402A23-008	SVW-1 3.0'	Soil	2/25/2014 11:30	☐	A		A									

Test Legend:

1	GAS8260_S	2	PREDF REPORT	3	TPH(D)WSG_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A contain testgroup.

Prepared by: Ana 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.

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WORK ORDER SUMMARY

Client Name: AQUA SCIENCE ENGINEERS, INC. **QC Level:** LEVEL 2 **Work Order:** 1402A23

Project: #3934; Albany Hill Mini Mart **Client Contact:** Robert Kitay **Date Received:** 2/28/2014

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

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1402A23-001A	BH-BB 3.5'	Soil	SW8015B (Diesel w/ S.G. Clean-Up)	1	Acetate Liner	☐	2/25/2014 14:00	5 days		☐	
			TPH(g) & MBTEX by 8260B			☐		5 days		☐	
1402A23-002A	BH-CC 4.0'	Soil	SW8015B (Diesel w/ S.G. Clean-Up)	1	Acetate Liner	☐	2/25/2014 14:30	5 days		☐	
			TPH(g) & MBTEX by 8260B			☐		5 days		☐	
1402A23-003A	BH-DD 3.0'	Soil	SW8015B (Diesel w/ S.G. Clean-Up)	1	Acetate Liner	☐	2/25/2014 16:57	5 days		☐	
			TPH(g) & MBTEX by 8260B			☐		5 days		☐	
1402A23-004A	BH-EE 3.5'	Soil	SW8015B (Diesel w/ S.G. Clean-Up)	1	Acetate Liner	☐	2/25/2014 15:40	5 days		☐	
			TPH(g) & MBTEX by 8260B			☐		5 days		☐	
1402A23-005A	BH-FF 3.0'	Soil	SW8015B (Diesel w/ S.G. Clean-Up)	1	Acetate Liner	☐	2/25/2014 13:19	5 days		☐	
			TPH(g) & MBTEX by 8260B			☐		5 days		☐	
1402A23-006A	BH-GG 3.0'	Soil	SW8015B (Diesel w/ S.G. Clean-Up)	1	Acetate Liner	☐	2/25/2014 10:09	5 days		☐	
			TPH(g) & MBTEX by 8260B			☐		5 days		☐	
1402A23-007A	BH-GG 6.5'	Soil	SW8015B (Diesel w/ S.G. Clean-Up)	1	Acetate Liner	☐	2/25/2014 10:25	5 days		☐	
			TPH(g) & MBTEX by 8260B			☐		5 days		☐	
1402A23-008A	SVW-1 3.0'	Soil	SW8015B (Diesel w/ S.G. Clean-Up)	1	Acetate Liner	☐	2/25/2014 11:30	5 days		☐	
			TPH(g) & MBTEX by 8260B			☐		5 days		☐	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Acetate Liner = Acetate Liner

1402A23

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

Chain of Custody

PAGE 1 of 1

SAMPLER (SIGNATURE) Robert C. Kitay

PROJECT NAME Albany Hill Mini Mart JOB NO. 3934

ADDRESS 800 San Pablo Avenue, Albany, CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015 8020) w/ silica gel cleanup 8260	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	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)		COMPOSITE	EDF	HOLD
BH-BB 3-5'	2-25-14	1400	S	1	X	X														X	
BH-CC 4-0'		1430			X	X														X	
BH-DD 3-0'		1657			X	X														X	
BH-EE 3.5'		1540			X	X														X	
BH-FF 3-0'		1319			X	X														X	
BH-GG 3.0'		1049			X	X														X	
BH-GG 6.5'		1025			X	X														X	
SVW-1 3.0'	↓	1130	↓	↓	X	X														X	

ICE/t: 0.7 WET ICE
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION
APPROPRIATE CONTAINERS
PRESERVED IN LAB
VOAS | O&G | METALS | OTHER

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:
(signature) 1050	(signature) 1050	(signature) 1500	(signature) 1500
Robert E. Kitay 2-28-14	Brad Sias 2/28/14	2/28/14	Ana Venegas
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)
Company-ASE, INC.	Company- mcCampbell	Company	Company- MAI 2/28/14

COMMENTS:

TURN AROUND TIME
STANDARD 24Hr 48Hr 72Hr
OTHER:

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Sample Receipt Checklist

Client Name: **Aqua Science Engineers, Inc.**
Date and Time Received: **2/28/2014 3:21:08 PM**

Project Name: **#3934; Albany Hill Mini Mart**
LogIn Reviewed by: Ana Venegas

WorkOrder N°: **1402A23** Matrix: Soil
Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 0.7°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	NA ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** 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

APPENDIX D

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

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3/17/2014
Mr. Robert Kitay
Aqua Science Engineers
55 Oak Court
Suite 220
Danville CA 94526

Project Name: Albany Hill Mini Mart
Project #: 3834
Workorder #: 1403023A

Dear Mr. Robert Kitay

The following report includes the data for the above referenced project for sample(s) received on 3/3/2014 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1403023A

Work Order Summary

CLIENT:	Mr. Robert Kitay Aqua Science Engineers 55 Oak Court Suite 220 Danville, CA 94526	**BILL TO:**	Mr. Robert Kitay Aqua Science Engineers 55 Oak Court Suite 220 Danville, CA 94526
PHONE:	925-820-9391	**P.O. #**	
FAX:	925-837-4853	**PROJECT #**	3834 Albany Hill Mini Mart
DATE RECEIVED:	03/03/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/17/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVW-1	TO-15	5.1 "Hg	14.8 psi
02A	Lab Blank	TO-15	NA	NA
03A	CCV	TO-15	NA	NA
04A	LCS	TO-15	NA	NA
04AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 03/17/14

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Aqua Science Engineers
Workorder# 1403023A

One 1 Liter Summa Canister sample was received on March 03, 2014. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVW-1

Lab ID#: 1403023A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	6.4	3.9	20
Ethyl Benzene	1.2	4.7	5.2	20
Toluene	1.2	31	4.6	120
m,p-Xylene	1.2	16	5.2	71
o-Xylene	1.2	4.7	5.2	20
TPH ref. to Gasoline (MW=100)	60	2800	250	11000

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Client Sample ID: SVW-1

Lab ID#: 1403023A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031218**	**Date of Collection:**	**2/25/14 5:16:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**3/12/14 06:49 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	6.4	3.9	20
Ethyl Benzene	1.2	4.7	5.2	20
Toluene	1.2	31	4.6	120
m,p-Xylene	1.2	16	5.2	71
o-Xylene	1.2	4.7	5.2	20
Naphthalene	4.8	Not Detected	25	Not Detected
TPH ref. to Gasoline (MW=100)	60	2800	250	11000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1403023A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031210**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/12/14 03:18 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	87	70-130

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Client Sample ID: CCV

Lab ID#: 1403023A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031207**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/12/14 12:35 PM**	

Compound	%Recovery
Benzene	91
Ethyl Benzene	95
Toluene	90
m,p-Xylene	88
o-Xylene	94
Naphthalene	89
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: LCS

Lab ID#: 1403023A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/12/14 11:03 AM**	

Compound	%Recovery	Method Limits
Benzene	103	70-130
Ethyl Benzene	107	70-130
Toluene	100	70-130
m,p-Xylene	102	70-130
o-Xylene	108	70-130
Naphthalene	87	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCSD

Lab ID#: 1403023A-04AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031209**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/12/14 02:41 PM**	

Compound	%Recovery	Method Limits
Benzene	104	70-130
Ethyl Benzene	106	70-130
Toluene	101	70-130
m,p-Xylene	101	70-130
o-Xylene	107	70-130
Naphthalene	100	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

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3/18/2014
Mr. Robert Kitay
Aqua Science Engineers
55 Oak Court
Suite 220
Danville CA 94526

Project Name: Albany Hill Mini Mart
Project #: 3834
Workorder #: 1403023BR1

Dear Mr. Robert Kitay

The following report includes the data for the above referenced project for sample(s) received on 3/3/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1403023BR1

Work Order Summary

CLIENT:	Mr. Robert Kitay Aqua Science Engineers 55 Oak Court Suite 220 Danville, CA 94526	**BILL TO:**	Mr. Robert Kitay Aqua Science Engineers 55 Oak Court Suite 220 Danville, CA 94526
PHONE:	925-820-9391	**P.O. #**	
FAX:	925-837-4853	**PROJECT #**	3834 Albany Hill Mini Mart
DATE RECEIVED:	03/03/2014	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/14/2014		
DATE REISSUED:	03/18/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVW-1	Modified ASTM D-1946	5.1 "Hg	14.8 psi
02A	Lab Blank	Modified ASTM D-1946	NA	NA
02B	Lab Blank	Modified ASTM D-1946	NA	NA
03A	LCS	Modified ASTM D-1946	NA	NA
03AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 03/18/14

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
Aqua Science Engineers
Workorder# 1403023BR1

One 1 Liter Summa Canister sample was received on March 03, 2014. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***ASTM D-1946***	***ATL Modifications***
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

THE WORKORDER WAS REISSUED ON 03/18/2013 TO REPORT ADDITIONAL COMPOUND FOR SAMPLE SVW-1 AS REQUIRED BY THE PROJECT SPECIFICATIONS.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: SVW-1

Lab ID#: 1403023BR1-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	20
Nitrogen	0.24	80
Methane	0.00024	0.038
Carbon Dioxide	0.024	0.42

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Client Sample ID: SVW-1

Lab ID#: 1403023BR1-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10031006**	**Date of Collection: 2/25/14 5:16:00 PM**	
Dil. Factor:	**2.42**	**Date of Analysis: 3/10/14 12:21 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	20
Nitrogen	0.24	80
Carbon Monoxide	0.024	Not Detected
Methane	0.00024	0.038
Carbon Dioxide	0.024	0.42
Ethane	0.0024	Not Detected
Ethene	0.0024	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister

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Client Sample ID: Lab Blank

Lab ID#: 1403023BR1-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10031005**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/10/14 11:47 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

Container Type: NA - Not Applicable

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Client Sample ID: Lab Blank

Lab ID#: 1403023BR1-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10031003c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/10/14 10:29 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

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Client Sample ID: LCS

Lab ID#: 1403023BR1-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10031002**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/10/14 09:41 AM**	

Compound	%Recovery	Method Limits
Oxygen	101	85-115
Nitrogen	100	85-115
Carbon Monoxide	100	85-115
Methane	101	85-115
Carbon Dioxide	100	85-115
Ethane	99	85-115
Ethene	102	85-115
Helium	100	85-115

Container Type: NA - Not Applicable

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Client Sample ID: LCSD

Lab ID#: 1403023BR1-03AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10031027**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/10/14 10:21 PM**	

Compound	%Recovery	Method Limits
Oxygen	102	85-115
Nitrogen	100	85-115
Carbon Monoxide	100	85-115
Methane	101	85-115
Carbon Dioxide	100	85-115
Ethane	98	85-115
Ethene	102	85-115
Helium	99	85-115

Container Type: NA - Not Applicable