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Alameda County
Environmental Health

June 26, 2007

REPORT
of
SOIL, GROUNDWATER, AND SOIL VAPOR ASSESSMENT
(Revised)
ASE JOB NO. 2808
at
Lim Property
250 8th Street
Oakland, California

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1.0 INTRODUCTION

This submittal presents Aqua Science Engineers, Inc. (ASE's) revised report for an additional soil, groundwater and soil vapor assessment at the Lim Family Property located at 250 8th Street in Oakland, California (Figures 1 and 2). This work was requested by the Alameda County Health Care Services Agency (ACHCSA) in their letters dated November 7, 2005 and May 12, 2006. The Remedial Action Plan (RAP) previously submitted on August 4, 2006 contained the other items requested in the letters. This report has been revised to correct the soil vapor concentrations reported in the May 10, 2007 report and associated discussions and recommendations.

2.0 BRIEF SITE HISTORY AND BACKGROUND INFORMATION

2.1 May 1992 Underground Storage Tank Removal

A gasoline service station previously occupied the site. In May 1992, ASE removed ten underground fuel storage tanks (USTs) from the site. The USTs consisted of one (1) 10,000-gallon gasoline tank, one (1) 5,000-gallon diesel tank, three (3) 2,000-gallon gasoline tanks, one (1) 2,000-gallon diesel tank, three (3) 500-gallon gasoline tanks and one (1) 250-gallon waste oil tank. Up to 10,000 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-G) and 5,900 ppm total petroleum hydrocarbons as diesel (TPH-D) were detected in soil samples collected during the tank removal.

2.2 December 1992 through March 1993 Soil Overexcavation

Between December 1992 and March 1993, All Environmental of San Ramon, California overexcavated 1,762 cubic yards of soil from the site and off-hauled the soil to the BFI Landfill in Livermore, California for disposal (Figure 2). Analytical results show that all on-site soil with hydrocarbon concentrations greater than 10 ppm was removed from the site with the exception of soil along the 8th Street shoring. Up to 1,800 ppm TPH-G and 120 ppm TPH-D were detected in soil samples collected along the shoring indicating that contamination likely extends below 8th Street. This contamination left in place may still be a source for groundwater contamination.

2.3 January 1995 Monitoring Well Installation

In January 1995, ASE installed monitoring wells MW-1 and MW-2 at the site (Figure 2). High hydrocarbon concentrations were detected in monitoring well MW-2, downgradient of the site. Moderate hydrocarbon concentrations were detected in on-site monitoring well MW-1.

2.4 January 1996 Borings and Groundwater Sampling

In July 1996, ASE collected groundwater samples from each monitoring well and drilled borings BH-C and BH-D to further define the width of the hydrocarbon plume downgradient of the site.



Relatively high hydrocarbon concentrations were detected in groundwater samples collected from monitoring well MW-2, downgradient of the site. Slightly lower but still very high hydrocarbon concentrations were detected in groundwater samples collected from boring BH-D, west of monitoring well MW-2. Very low hydrocarbon concentrations were detected in groundwater samples collected from monitoring well MW-1, located on the site, and boring BH-C, east of monitoring well MW-2. Based on these findings, the plume appeared to be moving to the south of Excavation I.

2.5 Quarterly Groundwater Monitoring

In April 1995, ASE began a quarterly groundwater monitoring program for the site. Since that time, the site has been on either a quarterly or semi-annual sampling schedule. Depth to groundwater data and analytical results for all groundwater sampling periods are tabulated in Tables One through Three.

2.6 June 1997 Remedial Action Plan

On June 5, 1997, ASE prepared a remedial action plan (RAP) addressing the need for groundwater remediation at the site, describing the appropriateness of several remedial options and choosing an option. Low flow hydrogen peroxide injection was chosen as the groundwater remediation option of choice for the site in order to raise dissolved oxygen (DO) concentrations in the groundwater to stimulate in-situ bioremediation.

2.7 February 1999 Hydrogen Peroxide Remediation System Installation

On February 2 and 3, 1999, five (5) injection wells were installed at the site (Figure 2). On February 18, 1999, the injection system began operation. It delivered a water and hydrogen peroxide solution to each injection well on a constant basis. DO concentrations within the injection wells rose to above 20 ppm. Groundwater in downgradient monitoring well MW-2 never showed a measurable increase in DO.

2.8 June 1999 Discovery of Free-Floating Hydrocarbons

On June 22, 1999, while measuring the DO content within the injection wells, ASE discovered that the DO probe had a very strong gasoline odor when removed from injection well IW-5. A clear bailer was inserted into IW-5 to check for the presence of free-floating hydrocarbons. The bailer contained approximately 18-inches of what appeared to be aged gasoline. On June 24, 1999, ASE returned to the site with an interface probe to accurately measure the thickness of the free-floating hydrocarbons. On that day, 1.75-feet of free-floating hydrocarbons was measured on the water surface in IW-5. Injection well IW-4 (15-feet east of IW-5) was measured with the interface probe and did not contain a measurable thickness of floating hydrocarbons. On June 24, 1999, ASE bailed the free-floating hydrocarbons from IW-5 until only a sheen was present



on the water surface. Approximately 3 gallons of product was removed from IW-5. ASE continued to measure and bail the floating product within well IW-5 on a bi-weekly basis.

2.9 January 2000 Monitoring Well Installation

In January 2000, ASE installed groundwater monitoring wells MW-3 and MW-4, east of injection well IW-5 and monitoring well MW-2 (Figure 2). High hydrocarbon concentrations were detected in groundwater samples collected from both of these wells, including up to 140,000 parts per billion (ppb) TPH-G, 13,000 ppb TPH-D and 22,000 ppb benzene.

2.10 April 2000 Groundwater Sampling

In April 2000, ASE collected groundwater samples from all four monitoring wells. Elevated hydrocarbon concentrations were detected in groundwater samples collected from monitoring wells MW-2, MW-3 and MW-4, including up to 240,000 ppb TPH-G, 700,000 ppb TPH-D and 35,000 ppb benzene. Monitoring well MW-3 contained free-floating hydrocarbons.

2.11 Hydrogen Peroxide System Discontinuation

On November 27, 2000, with the approval of the Alameda County Health Care Services Agency, ASE turned off the hydrogen peroxide injection system since there was no noticeable DO increase in downgradient monitoring wells MW-2 and MW-4 on the west side of 8th Street.

2.12 May 2002 Monitoring Well Installation

In May 2002, ASE installed groundwater monitoring wells MW-5 and MW-7 south of the site, across 8th Street, and MW-6 northwest of the site approximately 70 feet west of existing monitoring well MW-3 (Figure 2). Low concentrations of MTBE were identified in groundwater samples collected from wells MW-5 and MW-6. High concentrations of petroleum hydrocarbons were identified in well MW-7, including up to 38,000 ppb TPH-G and 890 ppb benzene.

2.13 October 2004 Duel-Phase Extraction Event

In October 2004, CalClean mobilized to the site with a truck-mounted Dual-Phase Extraction (DPE) system to perform both a DPE pilot test and a 14-day DPE interim remediation event at the site. At the completion of the DPE interim remediation event, a total of 94,470 gallons of free-product and groundwater were removed from three extraction wells. The average TPH-G concentration in the extracted groundwater was 13,900 ppb; the average benzene concentration of that extracted groundwater was 780 ppb. The extracted groundwater was treated on-site with activated carbon vessels, and then discharged, under permit, to the East Bay Municipal Utilities District (EBMUD) sanitary sewer system on-site.



A total of 2.3 million cubic feet of hydrocarbon-laden vapors were extracted from three extraction wells during the 15 day event. Based on field measurements and laboratory analytical data, over 7,000 pounds of petroleum hydrocarbons were extracted from three extraction wells during the 15-day event. This equates to approximately 1,150 gallons of petroleum hydrocarbons. The extracted vapors were treated on-site by CalClean's thermal oxidizer. Based on the success of this DPE event, ASE recommended a second DPE event for the site prior to designing and installing a long-term remediation system.

2.14 Current Quarterly Groundwater Monitoring Program

The site is currently on a quarterly groundwater monitoring program. Depth to groundwater and analytical results for all historical groundwater sampling events are tabulated in Tables One through Three.

2.15 October 2006 Workplan for Additional Assessment, Sensitive Receptor Survey, Area Well Survey, Conduit and Potential Preferential Pathway Survey, and Conceptual Site Model

In October 2006, ASE prepared a workplan to conduct an additional soil and groundwater assessment at the site. Also included in this document were a sensitive receptor survey, an area well survey, a conduit and potential preferential pathway survey, and a conceptual site model.

ASE prepared a map showing property usage within approximately one block of the site, specifically to search for sensitive receptors such as schools, daycare facilities, hospitals, or medical facilities. A summer school (Chinese Presbyterian Church School) is located across 8th Street to the southwest of the site at 265 8th Street. This school has monitoring wells MW-4 and MW-7 just in front of the school, and it is possible that the hydrocarbon plume extends beneath the church and school. No other schools, daycares, or medical facilities were located. None of the buildings across 8th Street downgradient of the site appeared to have basements. The nearest surface water bodies are the Oakland Inner Harbor and Lake Merritt, both over 2,000-feet from the site. It is highly unlikely that the hydrocarbon plume has reached either of these surface water bodies.

A conduit and potential preferential pathway study was conducted by reviewing Underground Service Alert (USA) markings in the site vicinity, reviewing as-built drawings supplied by the city, and contacting individuals that would have knowledge of the individual utility lines. There were no underground utility lines beneath 8th Street directly downgradient of the site that could present a potential preferential pathway for the movement of groundwater. Storm and sanitary sewer lines beneath Alice Street, crossgradient of the site, and beneath 7th Street, a block (approximately 350-feet) downgradient could be potential conduits for the preferential movement of groundwater only during very rare periods of unusually high groundwater levels.



ASE conducted an area well survey to locate water wells within a 2,000-foot radius of the site. A total of 149 wells are located within the study area. Of these wells, 129 are listed as monitoring or test wells, 10 are listed as piezometers, one is listed as a cathodic protection well, two are listed as extraction wells (for remediation), one is an air sparging well, one is listed as a domestic well, one is listed as an abandoned well, two are listed as destroyed wells, and two are of unknown usage. Although listed as a domestic well, the well labeled as domestic is owned by Western Union and has a listed depth of 33-feet. Based on this information, it is highly unlikely that this well is used for groundwater consumption. Based on all of the information known from these wells, (a) no water supply wells are located in the site vicinity, and (b) none of the other wells downgradient of the site appear to present a potential conduit for the downward movement of contamination.

2.16 January 2007 Soil Vapor Sampling Workplan

On January 18, 2007, ASE prepared a workplan to conduct a soil vapor sampling assessment at the site. This work was requested by the ACHCSA in their letter dated November 20, 2006. This soil vapor survey was to be conducted in conjunction with the work described in ASE's October 23, 2007 workplan. This workplan was subsequently approved by the ACHCSA with the addition of three additional soil vapor sample locations.

3.0 SCOPE OF WORK

The purpose of this assessment was to (a) further define the horizontal and vertical extent of soil and groundwater contamination related to the site, and (b) determine the risk related to potential vapor intrusion to indoor air for buildings on-site, adjacent to the site, and downgradient of the site. The scope of work for this project was to:

- 1) Obtain a drilling permit from the Alameda County Public Works Agency.
- 2) Obtain excavation permits from the City of Oakland to drill in 7th and 8th Streets.
- 3) Contract with a subsurface utility locating service to clear drilling locations of underground utility lines.
- 4) Drill six soil borings in both on-site and off-site locations using a Geoprobe and collect soil and groundwater samples for analysis.
- 5) Drill one soil boring to a depth of 60-feet bgs using a Geoprobe with a dual-wall sampler collecting soil samples continuously and collecting multi-depth groundwater samples from adjacent borings using a Hydropunch sampler.
- Following collection of the soil and groundwater samples, backfill the borings described in tasks 4 and 5 with neat cement placed by tremie pipe.



- Analyze soil and groundwater samples collected from each boring described in tasks 4 and 5 at a CAL-DHS certified analytical laboratory for TPH-D by EPA Method 8015 and TPH-G, BTEX, fuel oxygenates and lead scavengers by EPA Method 8260B.
- 8) Push seven vapor extraction points to 3-feet bgs in both on and off-site locations and collect soil vapor samples.
- 9) Analyze one soil vapor sample collected from each point at a CAL-DHS certified analytical laboratory for TPH-G and BTEX.
- 10) Backfill each boring described in task 8 with neat cement.
- Prepare a report presenting results from this assessment. This report will present tabulated analytical results, an updated conceptual site model, conclusions, and recommendations for appropriate feasibility tests, as necessary.

4.0 DRILL SOIL BORINGS AND COLLECT SOIL AND GROUNDWATER SAMPLES

4.1 Permits

Prior to drilling, ASE obtained a drilling permit from the Alameda County Public Works Agency (ACPWA). ASE also obtained excavation permits from the City of Oakland to allow for drilling in city streets. Copies of the permits are presented in Appendix A. ASE also notified USA to have underground public utilities in the vicinity of the site marked prior to drilling. Drilling locations were also cleared of utility lines by Subtronic Corporation of Concord, California prior to drilling.

4.2 Drill Deeper Boring and Collect Soil Samples

On March 1, 2007, Vironex, Inc. of San Leandro, California drilled soil boring SB-1 using a Geoprobe direct-push hydraulic sampling rig equipped with a dual-walled sampler. The dual-walled sampler allows the boring to advance with an external conductor casing to minimize potential cross-contamination by sealing off potentially contaminated soil and groundwater outside the external casing from the internal boring opening and sampling equipment. The purpose of this boring was to determine the vertical extent of hydrocarbons at the site in one of the locations where very high hydrocarbon concentrations was expected. The boring location is shown on Figure 3. ASE geologist Mike Rauser directed the drilling. Soil samples were collected by driving a dual-walled sampler into the ground using hydraulic direct-push methods. The internal drive sampler was lined with acetate tubes and this internal sampler was removed and then replaced after each sampling run.



Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible chemical analysis. Selective soil samples were immediately cut, sealed with Teflon squares and plastic end caps, and labeled with the site location, sample designation, date and time the sample was collected, and the initials of the person collecting the sample. The samples were placed into an ice chest containing wet ice for delivery under chain of custody to a CAL-DHS certified analytical laboratory 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 organic compounds (VOCs) 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 volatile compounds 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 Drill Shallow Soil Borings and Collect Soil Samples

On February 27 and 28, 2007, Vironex, Inc. drilled soil borings SB-2 through SB-7 in both on and off-site locations using a Geoprobe direct-push drill rig. The purpose of these borings was to define the extent of elevated hydrocarbon concentrations in soil and groundwater both upgradient to the north and downgradient to the south. The boring locations are shown on Figure 3. ASE geologist Mike Rauser directed the drilling. The soil samples were collected by driving a Macro-Core sampler lined with acetate tables into the ground using hydraulic direct-push.

Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible chemical analysis. Selective soil samples were immediately cut, sealed with Teflon squares and plastic end caps, and labeled with the site location, sample designation, date and time the sample was collected, and the initials of the person collecting the sample. The samples were placed into an ice chest containing wet ice for delivery under chain of custody to a CAL-DHS certified analytical laboratory under chain of custody documentation.

Soil from the remaining tubes was described by the site geologist using the USCS and was screened for VOCs using a 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 volatile compounds 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 listed on the boring logs presented in Appendix B.



4.4 Collect Groundwater Samples

Once groundwater was encountered, a temporary PVC well casing was driven into place for the collection of groundwater samples. Groundwater samples were removed from the boring with a pre-cleaned bailer. The groundwater samples were contained in 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and stored in an ice chest with wet ice for transport to the analytical laboratory under chain of custody.

Groundwater samples from deeper water-bearing zones were collected using a Hydropunch. The Hydropunch was driven into the targeted zone in a boring drilled immediately adjacent to the boring drilled for soil samples and lithology. The rods were then checked to verify that there was no leakage of groundwater prior to opening. Once the rods were shown to be dry, the Hydropunch screen was then opened and groundwater was allowed to enter the rods. Groundwater samples were then collected from within the rods using a bailer. Groundwater samples were then decanted from the bailer into 40-ml VOA vials, preserved with hydrochloric acid and sealed without headspace. The samples were then labeled with the site location, sample designation, date and time the samples were collected, and the initials of the person collecting the samples. The samples were then sealed in plastic bags and cooled in an ice chest with wet ice for transport to a state-certified analytical laboratory under chain-of-custody.

Additional deeper water samples were obtained in the same boring by placing a closed Hydropunch back into the same boring and continuing into the next deeper targeted zone for sampling, and then repeating the sampling process.

4.5 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 soil and groundwater samples, each boring was backfilled with neat cement to the ground surface.

5.0 SOIL VAPOR SAMPLING

5.1 Collect Soil Vapor Samples

On March 5 through 8, 2006, Vironex, Inc. pushed vapor collection points SV-1 through SV-7 in the locations shown on Figure 3. Vapor points were pushed to 3-feet bgs using drilling rods driven with a Geoprobe. The bottom of the rod contained an expendable point. Once at depth, the drive rod was retracted separating the expendable point and the rods and creating the desired void for sample collection. A Geoprobe Point Run Tubing (PRT) system adapter and new, unused polyethylene tubing were then advanced through the inner drive rod and secured to the expendable point holder at the base of the rods. A hydrated bentonite seal was placed around the rods and ground surface to prevent ambient air intrusion into the borehole. The borehole was



then allowed to equilibrate prior to purging and sampling. The tubing was then purged of five volumes to insure that all ambient air was removed from the tubing using the Geoprobe vacuum/volume system. The sample was collected in a 1-liter Summa canister with a rate between 100 to 200-ml per minute. The samples were labeled with the site location, sample designation, date and time the sample was collected, and the initials of the person collecting the sample. The samples were then be delivered under chain of custody to a CAL-EPA certified analytical laboratory. ASE geologist Mike Rauser directed the sampling.

5.2 Decontamination and Borehole Backfilling

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

6.0 LITHOLOGY AND HYDROGEOLOGY

Sediments encountered beneath the site generally consisted of silty sand from beneath the concrete or asphalt surface to approximately 33-feet bgs, silty clay from 33-feet bgs to approximately 42-feet bgs, silty sand from approximately 42-feet to 49-feet bgs, and silty clay from 49-feet to the total depth explored of 60-feet bgs. Groundwater was generally encountered between approximately 16 to 18-feet bgs. Boring logs are presented in Appendix B.

7.0 ANALYTICAL RESULTS FOR SOIL AND GROUNDWATER

7.1 Soil Sample Analysis

Soil samples collected from 5-foot intervals between 20 and 60-feet bgs in boring SB-1 were analyzed by Kiff Analytical, LLC of Davis, California (ELAP #2236) for TPH-G, BTEX and five oxygenates by EPA Method 8260B, and TPH-D by EPA Method 8015. Soil samples collected from 5 and 15-feet bgs in boring SB-2, and from 15-feet bgs in borings SB-3 through SB-7 were also analyzed for TPH-G, BTEX and five oxygenates by EPA Method 8260B, and TPH-D by EPA Method 8015. The analytical results are tabulated in Table Four, and certified analytical report and chain of custody are presented in Appendix C.

Hydrocarbon concentrations from these soil samples were compared to California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) environmental screening levels (ESLs) for soil at residential sites where groundwater is not a current or potential source of drinking water. These ESLs are presented in the "Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater" document dated February 2005 (Volume 1; Table D).

The TPH-G, TPH-D and BTEX concentrations in the soil sample collected from 20-feet bgs in boring SB-1 exceeded the RWQCB ESL for residential soil where groundwater is not a current or potential source of drinking water. The TPH-G, TPH-D and benzene concentrations in the soil



sample collected from 25-feet bgs in boring SB-1 also exceeded ESLs. None of the soil samples collected from boring SB-1 between 30-feet bgs and the total depth of 60-feet contained hydrocarbon concentrations exceeding ESLs.

7.2 Groundwater Sample Analysis

Groundwater samples collected from all borings were analyzed by Kiff Analytical for TPH-G, BTEX and five oxygenates by EPA Method 8260B, and TPH-D by EPA Method 8015. The analytical results are tabulated in Table Five, and certified analytical report and chain of custody are presented in Appendix C.

Groundwater samples collected from all three depths (20-23-feet bgs, 28-31-feet bgs and 51-53-feet bgs) in boring SB-1 contained concentrations of TPH-G, benzene, toluene and total xylenes exceeding ESLs. Ethyl benzene concentrations also exceeded ESLs in samples collected from the 20-23-foot and 28-31-foot depths in this boring. It should be noted that concentrations decreased by an order of magnitude with each successive sample depth. Boring SB-2 contained TPH-G and TPH-D concentrations exceeding ESLs, although none of the BTEX concentrations in this boring exceeded ESLs.

None of the samples from the remaining borings (SB-3 through SB-7) contained TPH-G or BTEX concentrations exceeding ESLs, although groundwater samples collected from SB-3 and SB-4 contained TPH-D at concentrations exceeding ESLs.

The only oxygenate detected was 9.8 ppb MTBE in the groundwater sample collected from boring SB-7. Given the fact that MTBE hasn't been detected in groundwater at the site at elevated concentrations and since there are several other gas stations within a block of the subject site, it is likely that this MTBE is not related to the subject site.

7.3 Vapor Sample Analysis

The vapor samples were analyzed by Air Toxics Ltd. of Folsom, California (ELAP #2110) for TPH-G and BTEX by Modified Method TO-3. The analytical results are tabulated in Table Six, and certified analytical reports are presented in Appendix D.

The vapor concentrations were compared to both residential and commercial/industrial shallow soil gas screening levels for evaluation of potential vapor intrusion concerns as presented in the "Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the RWQCB dated February 2005 (Volume 2; Table E-2). Benzene concentrations in all of the vapor samples except SV-5 exceeded both residential and commercial/industrial ESLs. The TPH-G concentrations also exceeded residential ESLs in all samples except SV-5, and exceeded the commercial/industrial ESL in sample SV-6.



8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the data collected from this assessment, ASE concludes the following:

- The horizontal extent of hydrocarbons is now adequately defined in soil and groundwater in every direction, except for TPH-G and TPH-D in the upgradient direction to the north. ASE recommends borings be drilled on the neighboring property to the north to complete the definition of the extent of hydrocarbons in this direction.
- The vertical extent of hydrocarbons in groundwater is not completely defined to below ESLs. However, there is a significant decrease in hydrocarbon concentrations with increased depth. In addition, although precautions were made to insure that hydrocarbons from shallower water-bearing zones were sealed off from the deeper water-bearing zone, it is possible given the very high concentrations in the shallower water-bearing zone that some of the hydrocarbons detected may be due to cross-contamination since drilling equipment had to pass through the highly contaminated shallow water-bearing zone to reach these deeper depths. It should be noted that no elevated hydrocarbon concentrations were detected in soil samples collected at or below 30-feet bgs. ASE recommends that a monitoring well be constructed to screen the water-bearing zone between 42 and 49-feet bgs. Since there are at least 11-feet of silty clay beneath the deepest water-bearing zone sampled, and since no hydrocarbons were detected in soil samples collected from this low permeability unit, it is unlikely that there has been any significant impacts to soil below 50-feet bgs.
- Soil vapor samples collected from six of the seven borings contained benzene concentrations
 exceeding the lowest residential and commercial/industrial exposure screening levels for
 potential vapor intrusion concerns. TPH-G concentrations also exceeded residential ESLs in
 six of the seven samples, and commercial/industrial ESLs in one of the samples. Based on
 these results, remediation will be required to address the elevated hydrocarbon concentrations
 in the vadose zone. ASE also recommends that further soil vapor sampling be conducted on
 the property north of the site.
- ASE has previously recommended the installation of a dual-phase extraction remediation system for the site. The previous dual-phase extraction events have proven very effective in the removal of a large mass of hydrocarbons. Given the fact that free-floating hydrocarbons still exist beneath the site, as well as beneath 8th Street downgradient of the site, ASE recommends the installation of a permanent dual-phase extraction system for the site. ASE will prepare a remedial action plan for the installation of our proposed system during the next quarter.
- If a deeper groundwater monitoring well proves actual significant impacts to groundwater in a water-bearing zone between 42 and 49-feet bgs, then additional investigation may be needed to assess this water bearing zone.



9.0 UPDATED CONCEPTUAL SITE MODEL

The site has had a release of both gasoline and diesel fuel either from the former USTs, piping or dispensers. Due to the age of the release, little MTBE has been detected in soil and groundwater at the site. Significant overexcavation has taken place at the site, although the excavation apparently did not extend into groundwater and a significant mass of hydrocarbons remain in groundwater and in the capillary zone soils, including free-floating hydrocarbons.

The groundwater flow direction is consistently to the south-southwest, which is consistent with the groundwater flow direction at nearby sites. The extent of hydrocarbons is defined crossgradient (to the east and west) and downgradient to the south. Elevated TPH-G and TPH-D concentrations exist in groundwater in the upgradient most borings, but no BTEX has been detected above ESLs in the upgradient most borings.

One boring (SB-1) has been drilled through one of the most contaminated portions of the site to define the vertical extent of contamination. This boring showed that the shallow silty sand water-bearing zone extends from the surface to 33-feet bgs. A silty clay aquitard separates the shallow water-bearing zone from a deeper silty sand water-bearing zone located between 42.5 and 49-feet bgs. A silty clay was located from beneath the silty sand water-bearing zone to the total depth explored of 60-feet. None of the soil samples collected at 30-feet or below contained hydrocarbon concentrations exceeding ESLs. However, groundwater samples collected from 50 to 53-feet bgs in the deeper water bearing-zone still contained hydrocarbon concentrations exceeding ESLs. Although precautions were made to minimize cross-contamination, ASE speculates that some of these concentrations may be related to cross-contamination since the sampling equipment had to pass through significant contamination to reach this depth.

Due to the depth of groundwater and the depth of the underground utility lines in 8th Street and Alice Street, it does not appear that there are any preferential pathways for the migration of groundwater contamination during normal water table conditions. During very rare periods of very high water levels, it may be possible that the sanitary and storm sewers beneath Alice Street could act as a conduit for the preferential movement of groundwater south of the site near 7th Street. However, Alice Street is generally crossgradient of the site's hydrocarbon plume and it does not seem likely that hydrocarbons related to the site have entered this conduit.

There are also no drinking water wells in the site vicinity. The only sensitive receptor is a small seasonal school southwest of the site across 8th Street. The primary risk related to groundwater contamination at the site appears to be vapor intrusion from soil and groundwater to indoor air in the buildings on and surrounding the site.



10.0 REPORT LIMITATIONS

The results presented in this report represent conditions at the time of the soil, groundwater and soil vapor sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Should you have any questions or comments, please call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

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

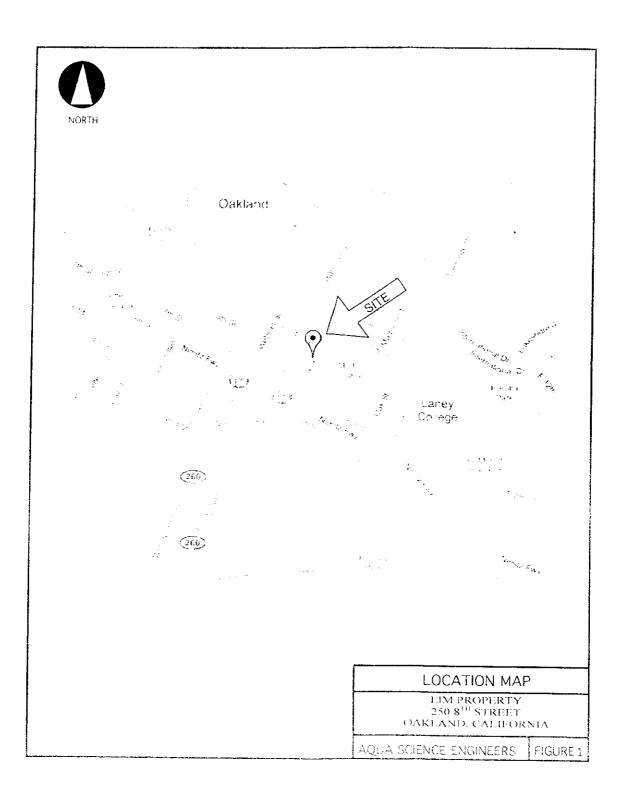
Senior Geologist

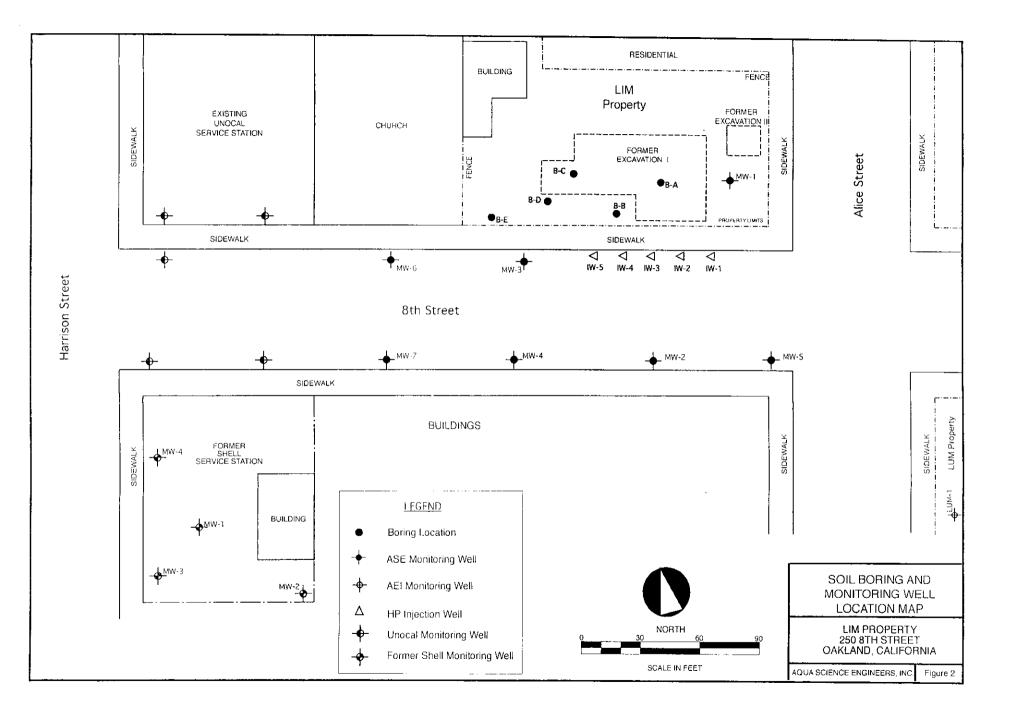
cc: Alice and May Lee Lim, c/o Russell Lim,

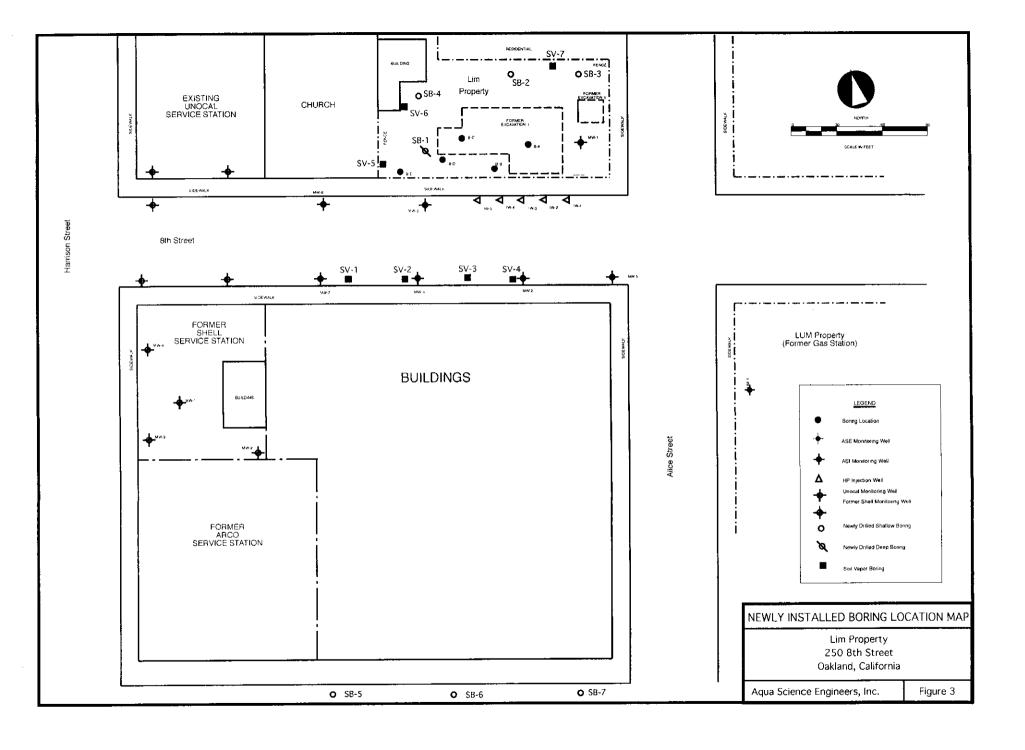
Mr. Jerry Wickham, Alameda County Health Care Services Agency (via upload to server)



FIGURES









TABLES

TABLE ONE

Groundwater Elevation Data Lim Family Property 250 8th Street Oakland, CA

					
	Date	Top of	Depth to	Product	Groundwater
	of	Elevation	Water	Thickness	Elevation
Well I.D.	Measurement	(msl)	(feet)	(feet)	(msl)
					.
MW-1	01/30/95	25.51	16.21		9.30
	04/12/95		15.71		9.80
	07/14/95		16.71		8.80
	10/17/95		17.72		7.79
	- 01/12/96		18.03	•	7.48
	07/25/96		16.82		8.69
	01/06/97		15.60		9.91
	07/08/97		17.31		8.20
	01/26/98		15.21		10.30
	07/23/98		15.38		10.13
	01/05/99		16.82		8.69
	07/13/99		15.89		9.62
	01/12/00		17.44		8.07
	04/24/00		16.37		9.14
	07/20/00		16.30		9.21
	10/24/00		17.25		8.26
	01/18/01		17.29		8.22
	04/05/01		15.88		9.63
	07/17/01		16.54		8.97
	10/25/01		16.89		8.62
	01/21/02		14.92		10.59
	04/11/02		14.02		11.49
	06/11/02	29.72	15.33		14.39
	09/17/02		15.96		13.76
	12/18/02		16.14		13.58
	03/25/03		16.16		13.56
	06/23/03		16.01		13.71
	09/26/03		16.57		13.15
	12/18/03		16.41		13.31
	03/12/04		14.64		15.08
	06/17/04		15.71		14.01
	09/17/04	•	16.35		13.37
	12/17/04		16.10		13.62
	04/28/05		14.10		15.62
	07/19/05		15.94		13.78
	10/03/05		16.34		13.38
	12/06/05		16.21		13.51
	03/15/06		16.21		13.51
	06/28/06		14.92		14.80
	08/31/06		15.60		14.12
	11/21/06		17.20		12.52
	02/12/07		16.12		13.60

TABLE ONE

Groundwater Elevation Data Lim Family Property 250 8th Street Oakland, CA

	 Date	Top of	Depth to	Product	Groundwater
	of	Elevation	Water	Thickness	Elevation
Well I.D.	Measurement	(msl)	(feet)	(feet)	(msl)
well i.b.	Measurement	(11151)	(1000)	(1000)	(11131)
MW-2	01/30/95	23.99	15.02		8.97
	04/12/95		14.75		9.24
	07/14/95		16.02		7.97
	10/17/95		16.94		7.05
	01/12/96		17.05		6.94
	07/25/96		16.02		7.97
	01/06/97		14.34		9.65
	07/08/97		16.52		7.47
	01/26/98		14.10		9.89
	07/23/98		14.70		9.29
	01/05/99		16.01		7.98
	07/13/99		15.40		8.59
	01/12/00		16.76		7.23
	04/24/00		15.67		8.32
	07/20/00		15.70		8.29
	10/24/00		16.56		7.43
	01/18/01		16.47		7.52
	04/05/01		15.88		8.11
	07/17/01		15.35		8.64
	10/25/01		15.63		8.36
	01/21/02		13.55		10.44
	04/11/02		13.74		10.25
	06/11/02	28.19	14.06		14.13
	09/17/02		14.67		13.52
	12/18/02		14.88		13.31
	03/25/03		15.11		13.08
	06/23/03		14.94		13.25
	09/26/03		15.49		12.70
	12/18/03		15.13		13.06
	03/12/04		13.50		14.69
	06/17/04		14.63		13.56
	09/17/04		15.19		13.00
	12/17/04		14.88		13.31
	04/28/05		13.39		14.80
	07/19/05		15.27		12.92
	10/03/05		15.57		12.62
	12/06/05		15.35		12.84
	03/15/06		12.65		15.54
	06/28/06		14.45		13.74
	08/31/06		15.37		12.82
	11/21/06		16.22		11.97
	02/12/07		16.12		12.07

TABLE ONE
Groundwater Elevation Data
Lim Family Property
250 8th Street
Oakland, CA

	Date	Top of	Depth to	Product	Groundwater
	of	Elevation	Water	Thickness	Elevation
Well I.D.	Measurement	(msl)	(feet)	(feet)	(msl)
Well I.D.	Measurement	(11131)		(1001)	(1,101)
MW-3	01/12/00	24.25	16.68	0.01	7.58*
	04/24/00		15.58	0.15	8.79*
	07/20/00		16.01	0.41	8.57*
	10/24/00		1,6.95	0.21	7.47*
`	01/18/01		16.63	0.21	7.79*
	04/05/01		15.16	0.23	9.27*
	07/17/01		15.92	0.39	8.64*
	10/25/01		16.26	0.38	8.29*
	01/21/02		14.08	0.16	10.30*
	04/11/02		14.59	0.54	10.09*
	06/11/02	28.58	15.16	0.90	14.14*
	09/17/02		16.04	1.24	13.53*
	10/01/02		16.14	1.23	13.42*
	10/25/02		15.80	0.60	13.26*
	11/12/02		15.87	0.47	13.09*
	12/18/02		15.42	0.47	13.54*
	03/25/03		16.11	1.14	13.38*
	06/23/03		16.58	1.86	13.49*
	09/26/03		16.11	0.66	13.00*
	12/18/03		15.83	0.59	13.22*
	03/12/04		14.51	1.21	15.04*
	06/17/04		15.25	0.68	13.87*
	09/17/04		16.14	0.96	13.21*
	12/17/04		15.05	0.25	13.73*
	01/13/05		13.40	0.45	15.54*
	04/28/05		15.31	2.43	15.21*
	07/19/05		16.29	1.67	13.63*
	10/03/05		16.10	1.47	13.66*
	12/06/05		15.04 12.65	1.17 2.41	14.48*
	03/15/06		12.65	2.41	15.49* 16.16*
	06/28/06			2.20	
	08/31/06		14.85 16.05	1.10	15.49* 13.41*
	11/21/06				
	02/12/07		15.96	0.35	12.90*

TABLE ONE Groundwater Elevation Data Lim Family Property 250 8th Street

250 8th Stree Oakland, CA

			<u> </u>		
	Date	Top of	Depth to	Product	Groundwater
	of	Elevation	Water	Thickness	Elevation
Well I.D.	Measurement	(msl)	(feet)	(feet)	(msl)
MW-4	01/12/00	23.71	17.24		6.47
	04/24/00		16.18		7.53
	07/20/00		16.18		7.53
	10/24/00		17.03		6.68
	01/18/01		16.87		6.84
	04/05/01		15.28		8.43
	07/17/01		15.92		7.79
	10/25/01		16.23		7.48
	01/21/01		14.14		9.57
	04/11/02	20.01	14.43		9.28
	06/11/02	28.61	14.72		13.89
	09/17/02		15.29		13.32
	12/18/02		15.20 15.53		13.41 13.08
	03/25/03		15.35		13.26
	06/23/03 09/26/03		15.91		12.70
	12/18/03		15.63		12.98
	03/12/04		13.88		14.73
	06/17/04		15.03		13.58
	09/17/04		15.61		13.00
	12/17/04		15.32		13.29
	04/28/05		13.82		14.79
	07/19/05		15.44		13.17
	10/03/05		15.91		12.70
	12/06/05		15.71		12.90
	03/15/06		13.05		15.56
	06/28/06		14.49		14.12
	08/31/06		15.75		12.86
	11/21/06		16.70		11.91
	02/12/07		16.51		12.10

TABLE ONE

Groundwater Elevation Data Lim Family Property 250 8th Street Oakland, CA

		Oditian	· · · · · · · · · · · · · · · · · · ·		
	Date	Top of	Depth to	Product	Groundwater
	of	Elevation	Water	Thickness	Elevation
Well I.D.	Measurement	(msl)	(feet)	(feet)	(msl)
MW-5	06/11/02	28.40	14.23		14.17
	09/17/02		14.80		13.60
	12/18/02		15.08		13.32
	.03/25/03		15.31		13.09.
	06/23/03		1 5.16		13.24
	09/26/03		15.72		12.68
	12/18/03		15.47		12.93
	03/12/04		13.44		14.96
	06/17/04		14.90		13.50
	09/17/04		15.45		12.95
	12/17/04		15.12		13.28
	04/28/05		13.63		14,77
	07/19/05		15.67		12.73
	10/03/05		15.81		12.59
	12/06/05		15.60		12.80
	03/15/06		12.81		15.59
	06/28/06		15.21		13.19
	08/31/06		15.55		12.85
	11/21/06		17.09		11.31
	02/12/07		16.29		12.11
MW-6	06/11/02	29.20	14.95		14.25
	09/17/02		15.47		13.73
	12/18/02		15.43		13.77
	03/25/03		15.67		13.53
	06/23/03		15.48		13.72
	09/26/03	NOT ME	ASURED - S	OUNDER MAI	FUNCTION
	12/18/03		15.79		13.41
	03/12/04		14.04		15.16
	06/17/04		15.13		14.07
	09/17/04		15.74		13.46
	12/17/04		15.54		13.66
	04/28/05		13.91		15.29
	07/19/05		15.30		13.90
	10/03/05		15.35		13.85
	12/06/05		15.69		13.51
	03/15/06		13.14		16.06
	06/28/06		14.44		14.76
	08/31/06		16.25		12.95
	11/21/06		16.69		12.51
	02/12/07		16.63		12.57
	02, . 2, 0.				

TABLE ONE

Groundwater Elevation Data Lim Family Property 250 8th Street Oakland, CA

					·
	Date	Top of	Depth to	Product	Groundwater
	of	Elevation	Water	Thickness	Elevation
Well I.D.	Measurement	(msl)	(feet)	(feet)	(msl)
	· · · ·				
MW-7	06/11/02	28.95	15 <i>.</i> 19		13.76
	09/17/02		15.73		13.22
	12/18/02	NOT ME	ASURED - CA	AR PARKED (OVER WELL
	03/25/03		15.96		12.99
	06/23/03		15.75		13.20
	09/26/03		16.29		12.66
	12/18/03		16.03		12.92
	03/12/04		14.28		14.67
	06/17/04		15.42		13.53
	09/17/04		16.02		12.93
	12/17/04		15.45		13.50
	04/28/05		14.15		14.80
	07/19/05		15.30		13.65
	10/03/05		16.25		12.70
	12/06/05		16.05		12.90
	03/15/06		13.36		15.59
	06/28/06		14.81		14.14
	08/31/06		16.13		12.82
	11/21/06		17.06		11.89
	02/12/07		16.97		11.98

Top of casing elevations resurveyed by Mid Coast Engineers on 6/27/02 and 7/11/02.

 $[\]frac{\text{Notes:}}{^* = \text{Adjusted for the presence of free-floating oil by the equation: Top of Casing Elevation -}$ Depth to Water + (0.8 x Floating Hydrocarbon Thickness) = Groundwater Elevation (Adjusted).

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

Well/						·	
Date	TPH	TPH			Ethyl-	Total	
Sampled	Gasoline	Diesel	Benzene	Toluene	benzene	Xylenes	MTBE
<u> </u>			i				
MW-1							
01/30/95	740	200	3	5	1	4	
04/12/95	400	500	< 0.5	< 0.5	3	< 2	
07/14/95	520	400	1	< 0.5	2	3	
10/17/95	400	200	0.5	1	3	< 2	
01/12/96	120	890	< 0.5	< 0.5	< 0.5	< 1.0	< 2.0
07/08/96	320	300	0.52	2.7	1.2	2.3	< 5.0
01/06/97	110	75	< 0.5	0.68	< 0.5	< 0.5	< 5.0
07/08/97	380	290	< 0.5	1.5	1.4	1.9	< 5.0
01/26/98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/23/98	190	< 50	0.54	2.8	2	1.8	< 5.0
01/05/99	200	< 50	1.8	1.6	3.3	< 0.5	< 5.0
07/13/99	340	<50	<0.5	<0.5	2.6	<0.5	< 5.0
01/12/00	300	1,000	22	36	5.5	24	< 5.0
04/24/00	360	280*	< 0.5	< 0.5	< 0.5	2.1	< 5.0
07/20/00	290	150*	1.8	< 0.5	< 0.5	< 0.5	< 5.0
10/24/00	170**	280*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
01/18/01	170**	150*	< 0.5	<0.5	< 0.5	2.1	< 5.0
04/05/01	350**	190*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/17/01	310	570	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
10/25/01	250	260	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
01/22/02	200	250	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/11/02	260	300	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	270	330	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
06/11/02	320	1,700	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
09/17/02	170	320	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/18/02			< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
03/25/03	320 240	< 500 310	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
06/23/03	110	300	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
09/26/03			< 0.5	< 0.5	< 0.5	< 0.5	
12/18/03	150	340	< 0.5		< 0.5	< 0.5	< 0.5
03/12/04	220	510		< 0.5			< 0.5
06/17/04	250	490	< 0.5	< 0.5	< 0.5 < 0.5	< 0.5	< 0.5
09/17/04	110		< 0.5	< 0.5		< 0.5	< 0.5
11/10/04***	180	400	0.68	< 0.5	1.7	< 0.5	< 5.0
12/17/04	77	130	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/28/05	250 .	190	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	340	na	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/03/05	170	< 100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
12/06/05	140	67	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
03/15/06	170	< 80	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
06/28/06	230	130	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
08/31/06	310	< 200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
11/21/06	220	160	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
02/23/07	140	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

Mall /							
Well/	TDU	TPH			Ethyl-	Total	
Date	TPH		Bannana	Toluene	-	Xylenes	мтве
Sampled	Gasoline	Diesel	Benzene	Toluene	Denzene	Aylenes	MIDE
MANA/ D							
MW-2	99.000	800	19,000	18,000	2,400	10,000	
01/30/95	88,000	990	21,000	28,000	2,800	14,000	
04/12/95	110,000		-	25,000	3,200	15,000	
07/14/95	120,000	5,000	20,000		4,900		
10/17/95	190,000	4,000	15,000	26,000		23,000	< 2
01/12/96	32,000	2,600	10,000	8,000	1,100	4,800	< 500
07/08/96	110,000	2,500	20,000	18,000	2,500	12,000	
01/06/97	230,000	37,000	11,000	19,000	4,300	20,000	< 1,200
07/08/97	91,000	35,000	16,000	20,000	2,700	13,000	< 1,000
01/26/98	50,000	11,000	12,000	12,000	1,600	6,700	< 250
07/23/98	50,000	8,100#	11,000	8,300	1,800	7,000	1,100
01/05/99	50,000	7,600#	12,000	12,000	2,300	9,600	1,300
07/13/99	73,000	8,500	11,000	13,000	2,200	9,800	< 500
01/12/00	63,000	11,000	10,000	12,000	1,800	7,800	< 500
04/24/00	76,000	23,000*	7,100	14,000	2,000	9,400	< 500
07/20/00	68,000	5,300#	11,000	14,000	2,300	11,000	< 1,000
10/24/00	48,000	6,400*	11,000	9,400	1,500 1,200	7,300 5,300	< 500 < 500
01/18/01	37,000	4,600* 4,600*	6,900 7,100	5,600 9,800	1,600	7,600	< 500
04/05/01 07/17/01	59,000 90,000	< 10,000	9,200	14,000	2,700	11,000	< 50
10/25/01	79,000	< 3,800	9,200	14,000	2,400	11,000	< 50
01/22/02	76,000	< 2,300	7,000	13,000	2,200	9,600	< 50
04/11/02	76,000	< 1,500	7,800	11,000	2,900	12,000	< 50
06/11/02	72,000	< 2,500	7,300	9,600	2,500	12,000	< 50
09/17/02	52,000	< 3,000	5,000	5,400	2,100	9,100	< 20
12/18/02	46,000	< 6,000	2,900	3,000	1,800	7,600	22
03/25/03	87,000	< 8,000	7,900	9,300	2,900	12,000	< 50
06/23/03	46,000	< 3000	7,800	4,000	1,900	6.600	< 50
09/26/03	52,000	< 3000	9.100	3,500	1,300	5,000	< 50
12/18/03	61,000	< 4,000	13,000	3,500	1,600	5,600	< 20
03/12/04	53,000	< 4,000	9,100	3,500	1,700	5,700	< 25
06/17/04	59,000	< 3,000	7,100	4,000	1,700	7,300	< 25
09/17/04	33,000		9,800	1,200	1,300	4,000	< 20
11/10/04***	44,000	3,600	13,000	4,400	1,600	6,000	< 1000
12/17/04	54,000	< 3,000	7,900	2,200	1,700	3,900	< 15
04/28/05	81,000	< 3,000	7,000	6,000	2,100	8,700	< 15
07/19/05	59,000	na	7,900	4,400	1,900	7,000	< 15
10/03/05	34,000	< 800	7,800	810	1,000	2,800	< 15
12/06/05	26,000	< 800	6,100	940	770	2,000	< 15
			7.700	2,600	1,400	4,200	< 15
03/15/06	33,000	< 1,500		•	•	,	< 15 < 15
06/28/06	96,000	< 4,000	10,000	14,000	2,900	12,000	
8/31/06	47,000	< 3,000	5,800	5,100	2,200	8,700	< 15
11/21/06	51,000	< 1,500	6,800	3,400	1,700	6,200	< 15
02/23/07	38,000	< 1,500	7,800	2,000	1,500	4,600	< 15

TABLE TWO Summary of Chemical Analysis of Groundwater Samples Petroleum Hydrocarbon Concentrations All results are in parts per billion

Well/	TOU	TDU			Ethyl-	Total	
Date	TPH	TPH	Danzona	Toluona	benzene		мтве
Sampled	Gasoline	Diesel	Benzene	roluene	Denzene	Xylenes	IVIIDE
MM 2							
MW-3 01/12/00	140.000	13,000*	22 000	19 000	2.400	11.000	< 500
04/24/00		700,000*					
04/24/00	270,000	700,000	35,000			84.000	. 0,000
07/20/00	ТОИ	SAMPLED		,		ROCARBO	NS .
10/24/00	NOT	SAMPLED	DUE TO F	REE-FLOA	TING HYD	ROCARBO	NS
01/18/01		SAMPLED					
04/05/01	NOT	SAMPLED	DUE TO F	REE-FLOA	TING HYD	ROCARBO	NS
07/17/01	NOT	SAMPLED	DUE TO F	REE-FLOA	TING HYD	ROCARBO	NS
10/25/01		SAMPLED					
01/22/02	NOT	SAMPLED	DUE TO F	REE-FLOA	TING HYD	ROCARBO	NS
04/11/02		SAMPLED					
06/11/02		SAMPLED					
09/17/02		SAMPLED					
12/18/02		SAMPLED					
03/25/03		SAMPLED					
06/23/03		SAMPLED					
09/26/03		SAMPLED					
12/18/03		SAMPLED					
03/12/04		SAMPLED					
06/17/04		SAMPLED					
09/17/04		SAMPLED					
11/10/04		SAMPLED					
12/17/04		SAMPLED					
04/28/05		SAMPLED					
07/19/05		SAMPLED					
10/03/05		SAMPLED					
12/06/05		SAMPLED					
03/15/06		SAMPLED					
06/28/06		SAMPLED					
8/31/06		SAMPLED					
11/21/06		SAMPLED					
02/23/07	NOT	SAMPLED	DUE TO F	REE-FLOA	TING HYD	RUCARBO	INS

TABLE TWO Summary of Chemical Analysis of Groundwater Samples Petroleum Hydrocarbon Concentrations All results are in parts per billion

Well/							·
Date	TPH	TPH			Ethyl-	Total	
Sampled	Gasoline	Diesel	Benzene	Toluene	benzene	Xylenes	MTBE
<u>MW-3</u>							
01/12/00		13,000*			2,400	11,000	< 500
04/24/00	240,000	700,000*				28,000/	< 5,000
			35,000	87,000	18,000	84,000	
07/20/00		SAMPLED					
10/24/00		SAMPLED					
01/18/01		SAMPLED					
04/05/01		SAMPLED					
07/17/01	NOT	SAMPLED	DUE TO F	REE-FLOA	TIŅG HYD	ROCARBO	DNS
10/25/01		SAMPLED					
01/22/02		SAMPLED					
04/11/02		SAMPLED					
06/11/02		SAMPLED					
09/17/02		SAMPLED					
12/18/02		SAMPLED					
03/25/03		SAMPLED					
06/23/03		SAMPLED					
09/26/03		SAMPLED					
12/18/03		SAMPLED					
03/12/04		SAMPLED					
06/17/04		SAMPLED					
09/17/04		SAMPLED					
11/10/04		SAMPLED					
12/17/04		SAMPLED					
04/28/05		SAMPLED					
07/19/05		SAMPLED					
10/03/05		SAMPLED					
12/06/05		SAMPLED					
03/15/06		SAMPLED					
06/28/06		SAMPLED					
8/31/06		SAMPLED					
11/21/06		SAMPLED					
02/23/07	NOT	SAMPLED	DUE TO F	REE-FLOA	TING HYD	ROCARBO	DNS

TABLE TWO

Summary of Chemical Analysis of Groundwater Samples Petroleum Hydrocarbon Concentrations All results are in parts per billion

Weli/							
Date	TPH	TPH			Ethyl-	Total	
Sampled	Gasoline	Diesel	Benzene	Toluene	benzene	Xylenes	MTBE
MW- <u>4</u>					0.400	12.000	2 500
01/12/00	99,000	7,900*	16,000	20,000	2,100	12,000	< 2,500
04/24/00	54,000	44,000*	3,400/	13,000/	1,800/	8,800/	< 1,300
			4,500	20,000	2,800	14,000	
07/20/00	8,000	3,500	9,200/	20,000	2,500	12,000/	< 1,000
			11,000	22,000	3,400	13,000	
10/24/00	98,000	8,000*	21,000	29,000	2,700		< 1,000
01/18/01	. 91,000	12,000	17,000/	21,000/	2,500/	13,000/	
			15,000	21,000	2,800	11,000	<5,000
04/05/01	88,000	7,500*	6,900/	18,000/	2,500/	12,000/	
			3,200	9,000	1,300	6,400	< 500
07/17/01	95,000	< 3,000	8,000	16,000	2,900	11,000	49
10/25/01	89,000	< 2,200	9,300	18,000	2,400	12,000	66
01/22/02	80,000	< 2,300	4,600	15,000	2,500	11,000	< 50
04/11/02	90,000	< 900	6,600	18,000	2,800	12,000	55
06/25/02	110,000	< 3,000	10,000	20,000	2,900	13,000	< 100
09/17/02	110,000	< 3,000	9,600	21,000	2,800	13,000	< 100
12/18/02	97,000	< 4,000	8,000	20,000	2,600	12,000	< 50
03/25/03	97,000	< 7,500	7,600	22,000	2,500	12,000	< 100
06/23/03	100,000	< 3,000	9,600	22,000	3,300	15,000	< 100
09/26/03	110,000	< 4,000	9,300	17,000	2,100	10,000	< 50 < 25
12/18/03	110,000	< 2,000	8,900	19,000	2,500	12,000 12,000	< 40
03/12/04	96,000	< 4,000	6,500	18,000	2,700	13,000	< 50
06/17/04	110,000	< 4,000	10,000	20,000	2,900 2,400	11,000	<50
09/17/04	78,000	4 200	9,300	15,000 21,000	3,000	16,000	< 1300
11/10/04***	87,000	4,300	15,000	16,000	2,800	12,000	< 25
12/17/04	88,000	< 3,000	8,500	14,000	2,200	10.000	< 25
04/28/05	110,000	< 3,000	7,800 10,000	13,000	2,200	10,000	< 40
07/19/05	90,000	na . eoo	,	4,000	1,800	8,700	23
10/03/05	68,000	< 800	9,400	7,200	2,200	9,500	< 20
12/06/05	81,000	< 1,500	8,900	14.000	2,500	10,000	< 20
03/15/06	68,000	< 3,000	7,300 8,500	4,100	2,600	11,000	< 20
06/28/06	61,000	< 3,000	9,500	9,600	2,500	12,000	< 20
08/31/06	68,000	< 2,000	9,300	5.000	2,300	9,300	< 20
11/21/06	68,000	< 1,500	11,000	11,000	2,800	12,000	< 20
02/23/07	90,000	< 2,000	11,000	11,000	2,000	1 4,000	~ 20

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

Well/	TD: (TOU			Ethod	Total	
Date	TPH	TPH	_		Ethyl-	Total	VETOE
Sampled	Gasoline	Diesel	Benzene	Toluene	benzene	Xylenes	MTBE
<u>MW-5</u>							
06/11/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	28
09/17/02	< 50	110	< 0.5	< 0.5	< 0.5	< 0.5	4.8
12/18/02	< 50	140	< 0.5	< 0.5	< 0.5	< 0.5	1.8
03/25/03	< 50	130	< 0.5	< 0.5	< 0.5	< 0.5	7.4
06/23/03	< 50	390	< 0.5	< 0.5	< 0.5	< 0.5	17
09/26/03	< 50	700	< 0.5	< 0.5	< 0.5	< 0.5	21
12/18/03	< 50	550	< 0.5	< 0.5	< 0.5	< 0.5	16
03/12/04	< 50	490	< 0.5	< 0.5	< 0.5	< 0.5	9.1
06/17/04	< 50	510	< 0.5	< 0.5	< 0.5	< 0.5	9.8
09/17/04	< 50		< 0.5	< 0.5	< 0.5	< 0.5	5.5
11/10/04***	< 50	370	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/17/04	< 50	120	< 0.5	< 0.5	< 0.5	< 0.5	9.2
04/28/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	2.2
07/19/05	< 50	na	< 0.5	< 0.5	< 0.5	< 0.5	6.1
10/03/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	2.4
12/06/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
03/15/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	3.3
06/28/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.8
08/31/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	3.4
12/05/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.2
02/23/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	6.0

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

	<u></u>						
Well/							
Date	TPH	TPH			Ethyl-	Total	
Sampled	Gasoline	Diesel	Benzene	Toluene	benzene	Xylenes	MTBE
MW-6							
06/11/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.2
09/17/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.0
12/18/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	0.90
03/25/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
06/23/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
09/26/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
12/18/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
03/12/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
06/17/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
09/17/04	< 50		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
11/10/04***	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/17/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/28/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	< 50	na	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/03/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
12/06/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
03/15/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
06/28/06	< 50	< 50	< 0.5	< 0.5	< 0.5	0.65	< 0.5
08/31/06	< 50	< 50	< 0.50	2.4	0.90	4.0	< 0.50
11/21/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
02/23/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

						· · · · · · · · · · · · · · · · · · ·
				Calad	T-4-1	1
				-		MEDE
Gasoline	Diesel	Benzene	Toluene	benzene	Xylenes	MTBE
< 50	< 50	< 0.5				1.2
< 50	< 50	< 0.5				1.0
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	0.90
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	na	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
< 50	< 50	< 0.5	< 0.5	< 0.5	0.65	< 0.5
< 50	< 50	< 0.50	2.4	0.90	4.0	< 0.50
< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	< 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50	Gasoline Diesel < 50	Gasoline Diesel Benzene < 50	Gasoline Diesel Benzene Toluene < 50	Gasoline Diesel Benzene Toluene benzene < 50	Gasoline Diesel Benzene Toluene benzene Xylenes < 50

TABLE TWO

Summary of Chemical Analysis of Groundwater Samples Petroleum Hydrocarbon Concentrations All results are in parts per billion

Well/									
Date	TPH	TPH			Ethyl-	Total			
Sampled	Gasoline	Diesel	Benzene	Toluene	benzene	Xylenes	MTBE		
<u>MW-7</u>									
06/25/02	38,000	< 2,000	890	5,100	1,200	5,200	< 20		
09/17/02	26,000	< 2,000	590	3,600	880	4,000	< 20		
12/18/02		NOT SAMPLED - CAR PARKED OVER WELL							
03/25/03	39,000	< 2,900	410	7,700	1,000	6,400	< 5.0		
06/23/03	17,000	< 1,000	440	2,600	630	2,600	< 10		
09/26/03	17,000	< 1,000	230	1,800	470	2,200	< 5.0		
12/18/03	20,000	< 1,000	290	2,500	590	2,900	< 5.0		
03/12/04	20,000	< 1,500	300	3,000	760	3,200	< 10		
06/17/04	12,000	< 800	250	1,800	450	1,900	< 5.0		
09/17/04	9,900	- -	200	1,500	450	1,800	< 5.0		
11/10/04***	20,000	1,900	550	4,200	920	4,000	< 500		
12/17/04	14,000	< 800	220	1,700	530	2,000	< 3.0		
04/28/05	13,000	< 300	84	1,000	660	2,200	< 2.5		
07/19/05	16,000	na	170	1,800	540	2,200	< 2.5		
10/03/05	7,400	< 200	140	710	350	1,100	< 0.50		
12/06/05	22,000	< 600	240	2,300	800	3,400	< 5.0		
03/15/06	3,800	< 200	4.6	160	120	620	< 0.50		
06/28/06	6,400	< 500	19.0	340	490	940	< 0.90		
08/31/06	20,000	< 600	160	2,200	1,300	3,500	< 2.5		
11/21/06	21,000	< 1,000	240	2,500	880	3,400	< 5.0		
02/23/07	10,000	< 200	150	1,300	580	2,400	< 2.5		
ESL	500	640	46	130	290	13	1,800		

Notes:

Non-detectable concentrations noted by the less than sign (<) followed by the detection limit. Most recent data in bold.

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns

^{* =} Hydrocarbons reported are in the early diesel range, and do not match the laboratory standard.

^{** =} Hydrocarbons reported do not match the laboratory gasoline standard.

^{***=} Grab sample - Not purged

 $^{\# = \}mathsf{Estimated}$ concentration reported due to overlapping fuel patterns.

^{/ =} Results separated by a slash represent results from two different laboratory methods (8020/8260).

na = not analyzed

Date Sampled &	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	_MW-7
ompound Analyzed	10.74-1	17.17.4					
/8/97							
lydrocarbon Oil and Grease	-	< 1,000	-	•	-	-	-
etrachioroethane (PCE)	0.9	< 0.5	•	-	•	•	-
ther VOCs	< 0.5 - < 3	< 0.5 - < 3	-	•	-	•	•
<u>/26/</u> 98							_
lydrocarbon Oil and Grease		< 1,000 < 5.0					
richloroethene	0.7 10	< 5.0	-	-		-	-
etrachloroethene ,2-Dichloroethane	< 0.5	11	_		-		
Other VOCs	< 0.5 · < 50	< 0.5 - < 50	-				
781E1 ¥ 003	10.0						
/23/98							
lydrocarbon Oil and Grease		< 1,000	•	•	-	•	•
etrachloroethene	4	4.6	*	•	•	-	•
.2-Drchloroethane	< 2	9.9	•	•	-	•	-
Other VOCs	< 2 - < 10	< 0.5 · < 5.0	•	-	•	-	•
/5/99		< 1.000			_		
lydrocarbon Oil and Grease	5, 1	< 50	- •	-			
etrachloroethene richloroethene	0.52	< 50		=		-	
,1,2,2-Tetrachloroethane	0.58	< 50	-		-		
hloroform	8.2	< 50		-	-		-
other VOCs	< 0.5 - < 5	< 50 - < 500	•			-	-
713/99							
713799 lydrocarbon Oil and Grease		< 1,000	_			-	
etrachlorgethene	15	7,000 0.68				-	-
errachiordemene hloroform	46	< 50	-	-	-	-	-
.2-Dichloroethane	<0.50	7.7	-	-			•
ther VOCs	< 0.5 - < 5	< 0.5 - < 500	-	•		-	-
/12/00			- 4 666	< 1.000	_		
lydrocarbon Oil and Grease		< 1,000	< 1,000 < 100		•		•
etrachtoroethene	0.8	< 1.0		< 50 < 50			-
hloroform	3.2	< 1.0	< 100 120	140	-		_
,2-Dichloroethane	<0.50	8.8	25,000	6,400	_		_
cetone Iaphthalene	-	-	550	540			
sopropylbenzene			120	89			
other VOCs	< 0.5 · < 5.0	< 1.0 - < 4.0	< 100 · < 10,000	< 50 · < 5,000	-	-	-
/24/00							
lydrocarbon Oil and Grease		<1,000	4,100	< 1.000	-		
.2-Dichloroethane	< 0.5	5.9	< 1,000	< 250	-	-	
laphthalene		-	3.800	590	-	-	-
sopronylbenzene	•		1,200	< 250	-		
other VOCs	< 05 - < 50	< 5.0 - < 20	: 1,000 - < 100.00	< 250 · < 25 900	•	-	-
/2 <u>0/00</u>							
ydrocarbon Oil and Grease		< 1,000		< 1.000	-	-	-
etrachfuröethene	ð 59	< 5.0	FREE	< 200	•	-	
hloratorm	2.1	< 5.0	PRODUCT	< 200	•		•
2 Dichroroetnane	< 9.5	6.7		< 200	-	-	•
cetone	•	-	NOT	< 20.000	-	•	-
aphthalene			SAMPLED	/30	-		-
Other VOCs	< 0.5 - < 20	< 5.0 - < 20		< 250 - < 20,000	•	•	•
0/24/00			FREE	~ 1.000	_	_	_
ydrocarbon Oit and Grease		< 1,000	PRODUCT	< 1.000	•	•	-
etrachloroethene	< 0.5	< 5.0	NOT	< 250	-	-	
hioroform	1.0	< 5.0	NOT	< 250 < 250 - < 25,000	•	-	
iher VOCs	< 0.5 · < 20	< 5.0 - < 20	SAMPLED	~ 230 - ~ 23,000	-	•	Ĭ
/18/01			FREE	4.000			
		2,100	PRODUCT	1 300	•	•	•
				. 000			
etrachloroethene	1.3	< 5.0		< 250	•	-	-
Hydrocarbon Oil and Grease Tetrachloroethene Chloroform Other VOCs		< 5.0 < 5.0 < 5.0 - < 20	NOT SAMPLED	< 250 < 250 < 250 · < 25,000	•	•	-

Date Sampled &	MW-1	MW-2	MW-3	VIW-4	MW-5	WW-6	MW-7
Compound Analyzed	3/19/9-1	N/W·Z	IMAA-3	VIVV-4	N144-2	7,45-0	
45.0							
4/5/01 Hydrocarbon Oil and Grease	-	< 1.0	FREE	1,100.0	-		
Tetrachloroethene	< 0.5	1.1	PRODUCT	< 50	_		_
		4.6		< 50	_		
1,2 dichloroethane	< 0.5		NOT	< 50	-	•	-
Trichloroethene	< 0.5	0.58			-	•	-
Naphthalene				320	•	-	•
Other VOCs	< 0.5 - < 2.0	< 5.0 - < 20	SAMPLED	< 50 - < 5,000	-	*	-
<u>7/17/01</u>							
Hydrocarbon Oil and Grease		< 500	FREE	< 500		-	
Tetrachioroethene	-	-	PRODUCT		-	-	-
1,2 dichloroethane	< 0.5	< 50		69.0			
Trichloroethene			NOT				_
Naphthalene							
Other VOCs	•		SAMPLED			-	_
Uther VUGS	•	•	SAMPLED	-	•	•	•
10/25/01							
Hydrocarbon Oil and Grease		< 5,000	FREE	< 5.000	-		•
1,2 dichloroethane	-	< 50	PRODUCT	72			•
1,2 dibromoethane		< 50	NOT	< 50	-	-	-
Other VOCs	-		SAMPLED	•••	-		-
							•
1/22/02 Hydrocarbon Oil and Grease		< 5 000	FREE	< 5.000	_	_	_
•	•		****	< 50	-	-	•
,2 dichloroethane	•	< 50	PRODUCT		•	•	•
1,2 dibromoethane	-	< 50	NOT	< 50	*		•
Other VOCs	•		SAMPLED		•	•	-
5/11/02							
Dil and Grease		1,100	FREE	-	< 1.000	< 1,000	
1,2 dichloroethane		< 50	PRODUCT		< 0.5	< 0.5	
1.2 dibromoethane		< 50	NOT		< 0.5	< 0.5	
Other VOCs		. 30	SAMPLED	-	- 0.5		
2007			071111 CLD				
5/25/02							
Oil and Grease		-	FREE	1,400	-	-	< 1,000
1,2 dichloroethane	•	•	PRODUCT	< 100	•	-	< 20
I,2 dibromoethane			NOT	< 100	-	-	< 20
Other VOCs	•	-	SAMPLED	-		-	•
1/17/02							
Oil and Grease		< 1,000	FREE	< 1,000	< 1,000	< 1,000	< 1.000
.2 dichloroethane		< 20	PRODUCT	< 100	< 0.50	< 0.50	< 20
.2 dibromoethane		< 20	NOT	< 100	< 0.50	< 0.50	< 20
Other VOCs	-		SAMPLED	•	-		-
101-0-00							
12/18/02		1 202	FREE	< 1.000	< 1,000	< 1.000	CAR PARKE
Oil and Grease		1.200					_
,2 dichloroethane	*	< 10	PRODUCT	< 50	< 0.50	< 0.50	OVER MELI
1,2 dibromoethane		< 10	NOT	< 50	< 0.50	< 0.50	NOT
Other VOCs	•	-	SAMPLED	-	•	-	SAMPLED
3/25/03							
Oil and Grease	-	< 1,000	FACE	< 1.000	< 1,000	< 1 000	< 1.000
2 dichigroetnane		< 50	PRODUCT	< 100	< 0.50	< 0.50	< 2.5
2 dibromoethane		< 50	NOT	< 100	< 0.50	< 0.50	< 2.5
2 dipromoernane Other VOCs	-	< 50	SAMPLED	< 130	< 0.50	< U 50	< 2.5
3/23/03 Disput Comment			5055	. 1 000	4 1 000		
Dil and Grease		< 1,000	FREE	< 1.000	< 1,000	< 1,000	< 1,000
,2 dichloroethane	< 0.5	< 50	PRODUCT	< 100	< 0.50	< 0.50	< 10
,2 dibromoethane	< 0.5	< 50	NOT	< 100	< 0.50	< 0.50	< 10

Date Sampled &			* *****	180			
Compound Analyzed	MW-1	MW-2	MW-3	MVV-4	MW-5		MW-7
9/26/03							
лгалуз Dil and Grease	-	< 1.000	FREE	< 1,000	< 1.000	< 1.000	< 1,000
1,2 dichloroethane	< 0.5	< 50	PRODUCT	87	< 0.50	< 0.50	< 5.0
1,2 dibromoethane	< 0.5	< 50	NOT	< 50	< 0.50	< 0.50	< 5.0
Other VOCs	-	•	SAMPLED	-	•		-
12/18/03							
Oil and Grease	•	-	FREE	•	-	•	-
1,2 dichloroethane	< 0.5	< 20	PRODUCT	46	< 0.50	< 0.50	< 5.0
1,2 dibromoethane Other VOCs	< 0.5	< 20	NOT SAMPLED	< 25	< 0.50	< 0.50	< 5.0
3/12/04							
<u>3/12/04</u> Oil and Grease			FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 25	PRODUCT	< 40	< 0.50	< 0.50	< 10
1,2 dibromoethane	< 0.5	< 25	NOT	< 40	< 0.50	< 0.50	< 10
Other VOCs	-	-	SAMPLED	•		•	•
6/17/04			core			=	=
Oil and Grease 1,2 dichloroethane	- < 0.5	< 25	FREE PRODUCT	93	< 0.50	< 0.50	< 5.0
1,2 dichloroethane 1,2 dibromoethane	< 0.5	< 25 < 25	NOT	93 < 50	< 0.50	< 0.50	< 5.0
Other VOCs	c 0.5		SAMPLED	-	-		
9/17/ <u>04</u>							
Oil and Grease	-	-	FREE	•	-		
1,2 dichloroethane	-	-	PRODUCT	•	•	•	
1,2 dibromoethane	•		NOT SAMPLED	-	-	=	
Other VOCs	=	•	SAMPLEU	-	-	-	•
12/17/04 Dil and Gregor	_		FASE	_	_	•	
Oil and Grease 1,2 dichloroethane	< 0.5	< 15	PRODUCT	53	< 0.50	< 0.50	< 3.0
i.∠ dichigroemane I.2 dibromoethane	< 0.5 < 0.5	< 15 < 15	NOT	< 25	< 0.50	< 0.50	< 3.0
Other VOCs	. 0.5		SAMPLED	-		-	
1/28/05							
Oil and Grease			FREE	-	-		
.2 dichloroethane	< 0.5	< 15	PRODUCT NOT	46 < 25	< 0.50 < 0.50	< 0.50 < 0.50	< 2.5 < 2.5
,2 dibromoethane DIPE	< 0.5 0.67	< 15 90	NOT SAMPLED	< 25 < 25	< 0.50	< 0.50 < 0.50	< 2.5 < 2.5
Other VOCs	< 0.5	< 15	AUTHUR FEB	< 25	< 0.50	< 0.50	< 2.5
7/19/05							
Dil and Grease			FREE				
.2 dichloroethane	< 0.5	< 15	PRODUCT	73	< 0.50	< 0.50	< 2.5
I.2 dibromoethane DIPE	< 0.5	< 15	NOT SAMPLED	< 40 < 20	< 0.50 2.1	< 0.50 < 0.50	< 25 < 25
JIPE TBA	0.76 < 5.0	< 15 77	- AMMELEU	< 20	< 5.0	< 5.0	< 25 < 50
Other VOCs	< 0.50	< 15	-	< 20	< 0.50	< 0.50	< 25
0/3/05							
), and Grease	-						•
2 dichic cethane	< 0.5	< 15	FACE	63	< 0.50	< 0.50	< 0.50
1,2 :libromoelhane	< 0.5	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 0.50
DIPE BA	< 0.5	< 15	NOT SAMPLED	23 < 5 0	1.7 < 5.0	< 0.50	< 0.50
BA Other VOCs	< 5.0 < 0.5	< 70 < 15	JAWIPLEU	< 50 < 20	< 0.50	< 5.0 < 0.50	< 5.0 < 0.50
1/15/06							
It and Grease	-	-	FREE	-			
.2 dichloroethane	< 0.5	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 0.50
,2 dibromoethane other VOCs	< 0.5 < 0.5	< 15 < 15	NOT SAMPLED	< 20 < 20	< 0.50 < 0.50	< 0.50 < 0.50	< 0.50 < 0.50
		- 10	5, 200				- 0.00
/28/06 ii) and Grease	=	-	•	-	-	=	•
,2 dichloroethane	< 0.5	33	FREE	20	< 0.50	< 0.50	< 0.90
2 dibromoethane	< 0.5	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 0.90
BA	< 5.0	< 5.0	NOT	< 5.0	< 5.0	< 5.0	< 50
ther VOCs	< 0.5	< 15	SAMPLED	< 20	< 0.50	< 0.50	< 0.50
IO. IOC							
<u>/31/06</u> Jil and Grease			-			-	
2 dichtoroethane	< 0.50	< 15	FREE	36	< 0.50	< 0.50	< 2.5
2 dibromoethane	< 0.50	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 2.5
IFE	< 0.50	< 15	NOT	< 20	< 0.50	< 0.50	: 4
BA NOO	< 5.0	81	SAMPLED	< 5.0	< 5.0	< 5.0	< 15
ther VCCs	< 0.50	< 15		< 20	< 0.50	< 0.50	< 5.0
1/21/06							
nt and Grease	- 0.50	- 15		42	< 0.50	-0.50	-5 n
2 dichloroethane 2 dibromoethane	< 0.50 < 0.50	< 15 < 15	FREE PRODUCT	42 < 20	< 0.50	< 0.50 < 0.50	< 50 < 50
z dipromoetnane IPE	< 0.50	< 15	NOT	< 20	17	< 0.50	< 5.0
BA .	< 5.0	82	SAMPLED	230	5.4	< 5.0	< 25
ther VOCs	< 0.50	< 15		< 20	< 0.50	< 0.50	< 5.0

MW-1	MW-2	MW-3	MVV-4	MVV-6→	MW-6	MW-7
			-	-	-	
< 0.50	< 15	FREE	36	< 0.50	< 0.50	< 2.5
< 0.50	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 2.5
1.2	< 15	NOT	< 20	1.4	< 0.50	< 2.5
< 5.0	190	SAMPLED	390	< 5.0	< 5.0	< 15
< 0.50	< 15	-	< 20	< 0.50	< 0.50	< 2.5
	< 0.50 < 0.50 1.2 < 5.0	< 0.50 < 15 < 0.50 < 15 1.2 < 15 < 5.0 190	<0.50 <15 FREE <0.50 <15 PRODUCT 1.2 <15 NOT <5.0 190 SAMPLED	<0.50 <15 FREE 36 <0.50 <15 PRODUCT <20 1.2 <15 NOT <20 <5.0 190 SAMPLED 290	<pre>< 0.50 <15</pre>	<pre><0.50 <15 FREE</pre>

TABLE FOUR

Summary of Chemical Analysis of SOIL Samples Petroleum Hydrocarbons

All results are in parts per million

Well ID	Depth (ft)	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	DIPE	ĖTBE	TAME	TBA	EDC	ED8
	` ,												<u> </u>	200
SB - I	20'	3,600	1100*	19	170	99	420	< 0.25	< 0.25	< 0.25	< 0.25	< 1.5	< 0.25	< 0.25
SB - I	25'	270	820	1.1	0.27	0.96	2.4	< 0.025	< 0.025	< 0.025	< 0.025	0.21	< 0.025	< 0.025
SB - I	30'	< 1.0	2.9**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - I	35'	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - I	40'	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - I	50'	< 1.0	3.9**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - I	55'	< 1.0	6.4**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - I	60'	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - 2	5'	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - 2	15'	< 1.0	2.6**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
\$B - 3	15'	< 1.0	16**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - 4	15'	< 1.0	4.2**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - 5	15'	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - 6	15'	< 1.0	1.2**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SB - 7	15'	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
ESL		400	500	0.18	9.3	32	11	2.0	NE	NE	NE	110	NE	NE

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

ESL = Environmental screening level for residential soil where groundwater is not a current or potential source of drinking water as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (February 2005)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

NE = ESL not established.

^{* =} Hydrocarbons reported as TPH-D do not exhibit a typical chromatographic pattern. These hydrocarbons are lower boiling than typical diesel fuel.

^{** =} Hydrocarbons reported as TPH-D do not exhibit a typical chromatographic pattern. These hydrocarbons are higher boiling than typical diesel fuel.

TABLE FIVE

Summary of Chemical Analysis of WATER Samples Petroleum Hydrocarbons

All results are in parts per billion

Well ID	Depth (ft)	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA	EDC	EDB
SB - I	20-23'	160,000	< 200,000	33,000	39,000	2,900	13,000	< 25	< 25	< 25	< 25	< 150	< 25	< 25
SB - I SB - I	28-31' 51-53'	37,000 5,200	< 1,500 < 800	1,300 120	3,500 320	1,500 160	4,400 500	< 5.0 < 0.50	< 5.0 < 0.50	< 5.0 < 0.50	< 5.0 < 0.50	< 25 < 5.0	< 5.0 < 0.50	< 5.0 < 0.50
SB - 2	20-25'	5,200	190,000	0.60	2.8	< 0.50	0.77	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
SB - 3	20-25'	< 50	700	< 0.50	2.6	< 0.50	0.88	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
SB - 4	20-25'	260	7,900	< 0.50	2.7	6.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
SB - 5	20-25'	< 50	< 50	< 0.50	2.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
SB - 6	20-25'	< 50	< 50	< 0.50	2.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
SB - 7	20-25'	< 50	190**	0.72	1.6	< 0.50	< 0.50	9.8	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50
ESL		500	640	46	130	290	100	1,800	NE	NE	NE	18,000	NE	NE

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

ESL = Environmental screening level for groundwater where groundwater is not a current or potential source of drinking water as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (February 2005)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

NE = ESL not established.

^{* =} Hydrocarbons reported as TPH-D do not exhibit a typical chromatographic pattern. These hydrocarbons are lower boiling than typical diesel fuel.

^{** =} Hydrocarbons reported as TPH-D do not exhibit a typical chromatographic pattern. These hydrocarbons are higher boiling than typical diesel fuel.

TABLE SIX Summary of Chemical Analysis of SOIL VAPOR Samples Petroleum Hydrocarbon Concentrations All results are in uG/L

Sample Location	TPH Gasoline	Benzene	Toluene	Ethyl- benzene	m,p- Xylene	o- Xylene
SV-1	30	1.3	0.78	0.13	0.32	0.19
SV-2	42	0.62	0.62	0.25	0.36	0.18
SV-3	47	0.42	0.83	0.55	0.74	0.32
SV-4	64	0.36	0.86	0.59	0.77	0.21*
SV-5	4.2	0.070	0.071	0.017	0.038	0.020
SV-6 SV-6 (Dupl)	110 110	1.8* 1.8*	0.13* 0.14*	0.085* 0.087*	0.13* 0.12*	0.073 0.072
SV-7	64	2.7	1.4	0.25	0.59	0.35
ESL (Residential) ESL (Commercial)	26 72	0.085 0.29	63 180	420 1,200	150 410	150 410

Notes:

ESL = Environmental screening levels (lowest exposure for indoor air) presented in the "Screening For Environmental Concerns

(Extractive 2005)" degrees the California Regional Water Quality at Sites With Contaminated Soil and Groundwater (February 2005)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region (Volume 2; Table E-3).

^{* =} Reported value may be biased due to apparent matrix interferences.



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

APPENDIX A

Permits

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 02/21/2007 By jamesy

Permit Numbers: W2007-0189

Permits Valid from 02/27/2007 to 03/09/2007

City of Project Site: Oakland

Extension End Date: 03/09/2007

1171589079031 Application Id: Site Location: 250 8th street **Project Start Date:** 02/27/2007

法有法规格

Extension Start Date: 02/27/2007

Extension Count:

Applicant:

Aqua Science Engineers - Mike Rauser

208 W. El Pintado, Suite C, Danville, CA 94526

Property Owner: Russell Lim

3111 Diablo View road, Lafayette, CA 94549

same as Property Owner Client:

Mike Rauser Contact:

Phone: 925-820-9391

Phone: --

Completion Date:03/09/2007

Extended By: vickyh1

Phone: 925-413-8603

Cell: --

Total Due:

\$200.00

Total Amount Paid:

\$200.00

PAID IN FULL Payer Name: Diane Schiell Paid By: VISA

Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 13 Boreholes

Work Total: \$200.00 Driller: vironex - Lic #: 705927 - Method: DP

Receipt Number: WR2007-0091

Specifications

Hole Diam Max Depth **Expire Dt** Permit Issued Dt **Boreholes** Number 30.00 ft 2.00 in. W2007-02/21/2007 05/29/2007

0189

Specific Work Permit Conditions

- 1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 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. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 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.
- 5. 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.
- 6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this

Alameda County Public Works Agency - Water Resources Well Permit

permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

	 	 	
	 _		



EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PAGE 2 of 2

Permit valid for 90 days from date of issuance

	r errine valid for 50 days from date of issuance.
PERMIT NUMBER X 0 7 0 0 1 5 5	
APPROX. START DATE APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER
2-20-07 4-20-07	(Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS	CITY BUSINESS TAX # 2 4 0 5 3 2
ATTENTION:	
secured an inquiry identification number issued by USA. Th	nd Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has e USA telephone number is 1-800-642-2444. Underground Service Alert (USA) #
2- 48 hours prior to starting work, you M	UST CALL (510) 238-3651 to schedule an inspection.
3- 48 hours prior to re-paving, a compacti	on certificate is required (waived for approved slurry backfill).
OWNER/BUILDER	
construct, alter, improve, demolish, or repair any structure, prior to its issue provisions of the Contractor's License law Chapter 9 (commencing with Sec alleged exemption. Any violation of Section 7031.5 by any applicant for a p 1, as an owner of the property, or my employees with wages as their sole Professions Code: The Contractor's License Law does not apply to an own provided that such improvements are not intended or offered for sale. If hos burden of proving that he did not build or improve for the purpose of sale). 1, as owner of the property, am exempt from the sale requirements of the be performed prior to sale, (3) I have resided in the residence for the 12 mos structures more than once during any three-year period. (Sec. 7044 Business	e compensation, will do the work, and the structure is not intended or offered for safe (Sec. 7044, Business er of property who builds or improves thereon, and who does such work himself or through his own employees, wever, the building or improvement is sold within one year of completion, the owner-builder will have the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will inthe prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two said Professions Code). It actors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law is who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).
WORKER'S COMPENSATION	
□ I hereby affirm that I have a certificate of consent to self-insure, or a certificity # ENVOO93220501 Company Nat	tificate of Worker's Componsation Insurance, or a certified copy thereof (Sec. 3700), Labor Code). The Clavendon National Insurance
	ed, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws
comply with such provisions or this permit shall be deemed revoked. This permitted upon the express condition that the permittee shall be responsible for perform the obligations with respect to street maintenance. The permittee shall suits, claims, or actions brough	you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith the termit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to all, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers to by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property nit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This ed by the Director of the Office of Planning and Building.
I hereby affirm that I am licensed under provisions of Chapter 9 of Division this permit and agree to its requirements, and that the above information is tr	3 of the Business and Professions Code and my liceuse is in full force and effect (if contractor), that I have read use and correct under penalty of law.
Michael Kause	2-15-07
Signature of Permittee Agent for Countractor D Own	Thoughay restriction? Limited operation areas
DATE STREET LAST SPECIAL PAVING DETAIL RESURFACED REQUIRED YES AND	(NOV 1-JAN 1) DYES DINO (TAM-9AM & 4PM-6PM) DYES DINO
ISSUED BY	DATE ISSUED

CITY OF OAKLAND . Community and Economic Development Agency

250 Frank H. Ogawa Płaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • FAX (510) 238-2263

Job Site 250 8TH ST

Parcel# 001 -0185-011-00

Appl# X0700185

Descr soil boring on 7th St between Harrison & Alice St

Permit Issued 02/15/07

Work Type EXCAVATION-PRIVATE P

USA #

Util Co. Job #

Acctq#:

Util Fund #:

Applcnt Phone# Lic# --License Classes--

Owner LIM MAY L TR & ALICE TR

Contractor AQUA SCIENCE ENGINEERS, INC. X (925)820-9391 487000 A C57

Arch/Engr

Agent

Applic Addr 208 WEST EL PINTADO, DANVILLE, CA., 94526

\$414.25 TOTAL FEES PAID AT ISSUANCE

\$61.00 Applic

\$300.00 Permit

\$.00 Process

\$34.30 Rec Mgmt

\$.00 Gen Plan

\$.00 Invstq

\$.00 Other

\$18.95 Tech Enh

JOB SITE

Application #

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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

Project Name: Lim Project Location: 250 8th Street, Oakland, CA Page 1 of 2 Driller: Vironex Drilling Type of Rig: Geoprobe Size of Drill: Macro Core Sampler Logged By: Michael Rauser Date Drilled: March 1, 2007 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 18' Well Screen Type and Diameter: NA Static Depth of Water in Well: NA Well Screen Slot Size: NA Total Depth of Boring: 60' Type and Size of Soil Sampler: NA BORING DETAIL State Details See See See See See See See See See Se	SOIL BORING LOG	AND MONIT	TORING WELL	COMPLET	ION DETAILS	BORING: SB-I			
Logged By: Michael Rauser Date Drilled: March 1, 2007 Checked By: Robert E. Kitay, P.G. WATER AND WELL DATA Depth of Water First Encountered: 18' Static Depth of Water in Well: NA Total Depth of Boring: 60' Type and Size of Soil Sampler: NA DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. BORING DETAIL	Project Name: Lim	-	Project Locat	ion: 250 8t	h Street, Oakl	and, CA	Page 1 of 2		
MATER AND WELL DATA Depth of Water First Encountered: 18' Well Screen Type and Diameter: NA	Driller: Vironex Drilling		Type of Rig: 0	Geoprobe	Siz	ze of Drill: Macro Core Sam	ıpler		
Depth of Water First Encountered: 18' Static Depth of Water in Well: NA Total Depth of Boring: 60' Type and Size of Soil Sampler: NA Total Depth of Boring: 60' BORING BORING DETAIL SAMPLE DATA DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. O Asphalt Hand Auger to 5' pea-gravel (GP); dark brown; loose; damp; slight odor	Logged By: Michael Rause	r	Date Drilled:	March 1, 2	arch 1, 2007 Checked By: Robert E. Kitay, P.G.				
Static Depth of Water in Well: NA Total Depth of Boring: 60' Type and Size of Soil Sampler: NA Type and Size of Soil Sampler: NA DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. O Asphalt Hand Auger to 5' pea-gravel (GP); dark brown; loose; damp; slight odor	WATER AND WELL DATA			Total De	pth of Well Co	mpleted: NA			
Total Depth of Boring: 60' Type and Size of Soil Sampler: NA DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. Asphalt Hand Auger to 5' pea-gravel (GP); dark brown; loose; damp; slight odor	Depth of Water First Encour	ntered: 18'		Well Scre	een Type and I	Diameter: NA			
BORING DETAIL SOIL/ROCK SAMPLE DATA Fig. 19 BORING DETAIL Fig. 19 Fig.	Static Depth of Water in We	ell: NA		Well Scre	een Slot Size:	NA			
BORING DETAIL STAND DETAIL STAND DETAIL STAND DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. Asphalt Hand Auger to 5' pea-gravel (GP); dark brown; loose; damp; slight odor	Total Depth of Boring: 60'			Type and	I Size of Soil S	ampler: NA			
BORING DETAIL Separation S	eet	- , , -		eet	DE	ESCRIPTION OF LITHOLO)GY		
Asphalt Hand Auger to 5' pea-gravel (GP); dark brown; loose; damp; slight odor	Depth in F	Interval Slow Count PID (ppmv)	Vater Level Graphic Log						
wet; slight odor at 18' wet; slight odor at 18' Silty SAND (SM); gray; medium dense; wet; 70% sand, 30 silt; non-plastic; high estimated K; strong hydrocarbon odor	5 10 - 1		03	5 - 10 - v	Hand Auger to	P); dark brown; loose; dam	p; slight odor		
Silty SAND (SM); gray; medium dense; wet; 70% sand, 30 silt; non-plastic; high estimated K; strong hydrocarbon odor SAND (SP); gray; loose; wet; 100% fine sand; non-plastic high estimated K; strong hydrocarbon odor brown; damp at 26' agray; loose; wet at 30'	- - - -25 - -	45	50	20 s o	ilt; non-plastic; dor SAND (SP); gra nigh estimated brown; damp a	; high estimated K; strong ay; loose; wet; 100% fine : K; strong hydrocarbon oc at 26'	hydrocarbon sand; non-plastic;		
AQUA SCIENCE ENGINEERS, INC.				<u> </u>	AQl	UA SCIENCE ENGINEERS, IN	VC.		

BORING DETAIL BORING
Segon Detail Segon
brown; stiff at 31' Silty CLAY (CH); brown; very stiff; damp; 70% clay, 30% silt; high plasticity; low estimated K; no odor light brown; hard at 34' wet at 36' 150 150 150 150 150 150 150 15
Boring total depth of 60' 65

SOIL BORING LOG AND WELL COI	MPLETION DI	ETAILS	Soil Bo	oring: SB-2		
Project Name: Lim	Project Loc	ation: 250 8th Str	eet, Oakland, (CA	Page 1 of 1	
Driller: Vironex Drilling	Type of Rig	g: Geoprobe	Geoprobe Size of Drill: Macro Core Sampler			
Logged By: Mike Rauser D	ate Drilled: Fe	February 27, 2007 Checked By: Robert E. Kitay, P.G.				
WATER AND WELL DATA		Total Depth of W	ell Completed:	NA		
Depth of Water First Encountered: 15'		Well Screen Type	and Diameter:	: NA		
Static Depth of Water in Well: Unknown		Well Screen Slot S	Size: NA			
Total Depth of Boring: 25'		Type and Size of	Soil Sampler: M	lacro Core Sam	oler	
SOIL/ROCK S	AMPLE DATA			ON OF LITHOL		
E WELL BORING OF E	g hic	≝ standard density, s		texture, relative -staining, USCS		
Depth in Feet TIPLED Description Description Mater Level PID S S S S S S S S S S S S S	(ppmv) Graphic Log	Depth in density, s				
-0 PZ	77777	0 Asphalt				
		Hand Aug	er to 5'			
- tland Ce	0	silt; non-p		dense; dry; 60 estimated K; n		
Class "H" Por	41	damp at 1 -15 - grey; den		10% silt; no oc	or at 17'	
- -20 -	40	- wet; loose	e at 19'			
	12		ong hydrocark	oon odor at 23' or at 25'		
 -30		- - - - 30	End of boring	at 25'		
ASE Form 20A		AQUA S	CIENCE ENGIN	EERS, INC.		

SOIL BORING LOG AND WEL	Soil Boring: SB-3	Soil Boring: SB-3			
Project Name: Lim	Project Loc	cation: 250 8th Street, Oakland, CA Page 1 o			
Driller: Vironex Drilling	Type of Rig	g: Geoprobe	ize of Drill: Macro Core Sai	mpler	
Logged By: Mike Rauser	Date Drilled: Fe	ebruary 27, 2007	Checked By: Robert	E. Kitay, P.G.	
WATER AND WELL DATA		Total Depth of Well	Completed: NA		
Depth of Water First Encountered: 1	3'	Well Screen Type a	nd Diameter: NA		
Static Depth of Water in Well: Unkno	wn	Well Screen Slot Siz	e: NA		
Total Depth of Boring: 25'		Type and Size of So	il Sampler: Macro Core Sam	pler	
SOIL/RO	CK SAMPLE DATA	eet	DESCRIPTION OF LITHOL		
Depth in Feet Mater Water Depth in Feet Bullon Description Water	PID (ppmv) Graphic Log		assification, texture, relativ ffness, odor-staining, USCS		
0 77	77777	A and holt	· · · · · · · · · · · · · · · · · · ·		
		Hand Auger	to 5'		
15 E	0		(SM); brown; stiff; dry; 80% te plasticity; medium estim		
ortland Cement	0	-10 - - - - - - - -	- 1 <i>4</i> '		
Class "H" Po	0	- 15 - - -	40% silt at 18'		
-20	2	-20 dense at 20 wet; loose a	o' at 21'		
-25	427	80% sand;	20% silt; non-plastic at 22'		
- - -		-	nd of boring at 25'		
-30	<u> </u>	F30 AOUA SC	ENCE ENGINEERS, INC.		

SOIL BORING LOG AND WELL COI	ETAILS	Soil Boring: SB-4			
Project Name: Lim	Project Loc	ocation: 250 8th Street, Oakland, CA Page 1 c			
Driller: Vironex Drilling	Type of Rig	: Geoprobe	Size o	of Drill: Macro Core San	npler
Logged By: Mike Rauser D	ate Drilled: Fe	bruary 27, 2007	<u>.</u>	Checked By: Robert I	E. Kitay, P.G.
WATER AND WELL DATA		Total Depth of We	ell Com	pleted: NA	
Depth of Water First Encountered: 18'		Well Screen Type	and Di	iameter: NA	
Static Depth of Water in Well: Unknown		Well Screen Slot S	Size: N	IA	
Total Depth of Boring: 25'		Type and Size of	Soil Sai	mpler: Macro Core Sam	oler
SOIL/ROCK S	AMPLE DATA			CRIPTION OF LITHOL	
Depth in Feet Description Mater Level PID SON AND AND AND AND AND AND AND AND AND AN	(ppmv) Graphic Log			ication, texture, relative ss, odor-staining, USCS	
-0 77	77777	0 Asphalt	· - ·		
Class "H" Portland Cement	0	silt; low plastic solution of the second sec	d; non-p city at vn; very d; 20% d; 10% vn; slig	y stiff at 14' silt at 16' silt; non-plastic; damp ht odor at 21'	odor
-25 2 - 2 - 30	86	- 30	End o	of boring at 25'	
ASE Form 20A		AQUA S	SCIENC	E ENGINEERS, INC.	

SOIL BORING LOG AND WELL COMPLETION DETAILS					Soil Boring: SB-5		
Project Name: Lim	Project Loc	cation: 250 8th Street, Oakland, CA Page				Page 1 of 1	
Driller: Vironex Drilling	Type of Rig	: Geoprob	e	Size	of Drill: Macro Core Sar	mpler	
Logged By: Mike Rauser Da	te Drilled: Fe	bruary 28	, 2007		Checked By: Robert	E. Kitay, P.G.	
WATER AND WELL DATA		Total Dep	oth of We	ll Com	npleted: NA		
Depth of Water First Encountered: 16'		Well Scre	en Type	and Di	iameter: NA		
Static Depth of Water in Well: Unknown		Well Scre	en Slot S	ize: N	NA .		
Total Depth of Boring: 20'		Type and	Size of S	oil Sa	mpler: Macro Core Sam	pler	
501L/ROCK SA	MPLE DATA				SCRIPTION OF LITHOL		
Depth in Feet Description Interval Water Level PID	(ppmv) Graphic Log				ication, texture, relatives, odor-staining, USCS		
-0 P77		 	sphalt				
0		5 Si		(SP);	red-brown; dense; dry		
tland Cement		p:	ale-grey;	very s	y; high estimated K; no stiff at 7' silt; dense; damp at 12		
Class "H" Por		} h	vet at 16' lard at 17 lrown; 80'	* 1	nd; 20% silt at 18'		
 25 		- - -25 - -	End	d of b	oring at 20'		
-30 _ ASE Form 20A	l	<u> </u>	AQUA SO	CIENCI	E ENGINEERS, INC.		

SOIL BORING LOG AND WELL COMPLETION DETAILS				Soil Boring: SB-6		
Project Name: Lim	Project Loc	ation: 250 8th Str	eet, Oa	akland, CA	Page 1 of 1	
Driller: Vironex Drilling	Type of Rig	: Geoprobe	Size c	of Drill: Macro Core Sampler		
Logged By: Mike Rauser	ate Drilled: Fe	bruary 28, 2007		Checked By: Robert	E. Kitay, P.G.	
WATER AND WELL DATA		Total Depth of We	ell Com	pleted: NA		
Depth of Water First Encountered: 20'		Well Screen Type	and Di	ameter: NA		
Static Depth of Water in Well: Unknown		Well Screen Slot S	Size: N	IA		
Total Depth of Boring: 25'		Type and Size of S	Soil Sar	mpler: Macro Core Sam	pler	
Fee	(ppmv) Graphic Log	standard	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture density, stiffness, odor-staining, USCS designated			
-0	7////	0 Asphalt		-		
Portland Ce		silt; low pl damp at 8 70% sand grey-gree	(SP); asticity d; 30%	brown; dense; wet; 60 y; high estimated K; no silt at 12'		
▼	0	grey-brow -20 soft; wet - hard at 2:	n at 1 at 20'	8'		
- 30		130 AOUA S	CIENIC	E ENGINEERS, INC.		
ASE Form 20A		AQUA S	CILINU	LINGHALLES, INC.		

SOIL BORING LOG AND WELL CO	TAILS	Soil Boring: SB-7				
Project Name: Lim	Project Loc	ocation: 250 8th Street, Oakland, CA Page 1				
Driller: Vironex Drilling	Type of Rig	: Geoprobe	Size	of Drill: Macro Core San	npler	
Logged By: Mike Rauser	ate Drilled: Fe	bruary 28, 2007		Checked By: Robert	E. Kitay, P.G.	
WATER AND WELL DATA		Total Depth of We	ell Cor	npleted: NA		
Depth of Water First Encountered: 20'		Well Screen Type	and C	liameter: NA		
Static Depth of Water in Well: Unknown		Well Screen Slot S	Size:	NA	(<u></u>	
Total Depth of Boring: 25'		Type and Size of S	Soil Sa	ampler: Macro Core Sam	pler	
Depth in Feet Description Mater Level PID Depth in Feet Mater PID PID Depth in Feet Depth in Feet Autor PID PID PID PID PID PID PID PI	(ppmv) ATAG BALAWAS Graphic Log	standard	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moistur density, stiffness, odor-staining, USCS designation			
-0 PZ	77777	0 Asphalt	_			
rtland Cement	0 .6	silt; non-p	O (SP) lastic	; brown; dense; damp; 9 high estimated K; no of silt; low plasticity at 12	dor	
- class - clas	0	grey-brow	n at	s silt; hard at 17' 18' nd; 20% silt; wet at 20'		
		- - - - 30		of boring at 25'		



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

APPENDIX C

Analytical Reports
And Chain of Custody Records
For Soil and Groundwater Samples



Report Number: 55109

Date: 3/12/2007

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

Subject: 15 Soil Samples and 9 Water Samples

Project Name: Lim Project Number: 2808

Dear Mr. Rauser,

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

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

Sincerely,



Report Number: 55109

Date: 3/12/2007

Subject:

15 Soil Samples and 9 Water Samples

Project Name : Project Number : Lim 2808

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples SB-1-20-23', SB-1-28-31' and SB-1-51-53'.

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for sample SB-1-20. These hydrocarbons are lower boiling than typical diesel fuel.

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples SB-1-30', SB-1-50', SB-1-55', SB-2-15', SB-3-15', SB-4-15', SB-6-15' and SB-7. These hydrocarbons are higher boiling than typical diesel fuel.

Surrogate Recovery for sample SB-3 for test method Mod. EPA 8015 was outside of control limits. This may indicate a bias in the analysis due to the sample's matrix or an interference from compounds present in the sample.

Approved By:

Joe Kiff



Project Name : Lim
Project Number : 2808

Matrix : Soil

Lab Number: 55109-03

Report Number: 55109

Date: 3/12/2007

Sample : **SB-1-20'**Sample Date :3/1/2007

Sample Date :3/1/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	19	0.25	mg/Kg	EPA 8260B	3/3/2007
Toluene	170	0.25	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	99	0.25	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	420	0.50	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.25	0.25	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.25	0.25	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.25	0.25	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.25	0.25	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 1.5	1.5	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	3600	50	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.25	0.25	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.25	0.25	mg/Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	97.2		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	94.9		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	95.8		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	1100	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	90.5		% Recovery	M EPA 8015	3/3/2007

Approved By:

oel Kiff



Lim Project Name: Project Number: 2808

Date: 3/12/2007

Report Number: 55109

Sample : SB-1-25' Sample Date :3/1/2007 Matrix : Soil

Lab Number: 55109-04

Sample Date :3/1/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.1	0.025	mg/Kg	EPA 8260B	3/5/2007
Toluene	0.27	0.025	mg/Kg	EPA 8260B	3/5/2007
Ethylbenzene	0.96	0.025	mg/Kg	EPA 8260B	3/5/2007
Total Xylenes	2.4	0.025	mg/Kg	EPA 8260B	3/5/2007
Methyl-t-butyl ether (MTBE)	< 0.025	0.025	mg/Kg	EPA 8260B	3/5/2007
Diisopropyl ether (DIPE)	< 0.025	0.025	mg/Kg	EPA 8260B	3/5/2007
Ethyl-t-butyl ether (ETBE)	< 0.025	0.025	mg/Kg	EPA 8260B	3/5/2007
Tert-amyl methyl ether (TAME)	< 0.025	0.025	mg/Kg	EPA 8260B	3/5/2007
Tert-Butanol	0.21	0.15	mg/Kg	EPA 8260B	3/5/2007
TPH as Gasoline	270	25	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.025	0.025	mg/Kg	EPA 8260B	3/5/2007
1,2-Dibromoethane	< 0.025	0.025	mg/Kg	EPA 8260B	3/5/2007
Toluene - d8 (Surr)	95.5		% Recovery	EPA 8260B	3/5/2007
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	3/5/2007
1,2-Dichloroethane-d4 (Surr)	91.8		% Recovery	EPA 8260B	3/5/2007
TPH as Diesel (Silica Gel)	820	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	87.0		% Recovery	M EPA 8015	3/3/2007

Approved By:



Project Name : Lim
Project Number : 2808

Matrix : Soil

Lab Number: 55109-05

Report Number: 55109

Date: 3/12/2007

Sample : **SB-1-30'**Sample Date :3/1/2007

Sample Date :3/1/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	3/6/2007
4-Bromofluorobenzene (Surr)	95.8		% Recovery	EPA 8260B	3/6/2007
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	3/6/2007
TPH as Diesel (Silica Gel)	2.9	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	92.8		% Recovery	M EPA 8015	3/3/2007

Approved By:

Joel Kiff



Project Name : Lim Project Number: 2808

Sample: **SB-1-35'**

Matrix : Soil

Lab Number: 55109-06

Report Number: 55109

Date: 3/12/2007

Sample Date:3/1/2007

Sample Date :3/1/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	3/6/2007
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/6/2007
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	3/6/2007
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	3/7/2007
1-Chlorooctadecane (Silica Gel Surr)	94.7		% Recovery	M EPA 8015	3/7/2007

Approved By:



Project Name: Lim
Project Number: 2808

Matrix : Soil

Lab Number : 55109-07

Report Number: 55109

Date: 3/12/2007

Sample Date :3/1/2007

Sample: SB-1-40'

Sample Date :3/1/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B .	3/3/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	98.9		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	97.7		% Recovery	M EPA 8015	3/3/2007

Approved By:

oel Kiff



Project Name: Lim

Project Number: 2808

Sample: SB-1-50'

Matrix : Soil

Lab Number: 55109-08

Report Number: 55109

Date: 3/12/2007

Sample Date :3/1/2007

Sample Date :3/1/2007	Magazzad	Method		Analysis	Date
Parameter	Measured Value	Reporting Limit	Units	Method	Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	3.9	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	84.5		% Recovery	M EPA 8015	3/3/2007

Approved By:



Project Name: Lim
Project Number: 2808

Sample : **SB-1-55'**

Matrix : Soil

Lab Number: 55109-09

Report Number: 55109

Date: 3/12/2007

Sample Date :3/1/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	6.4	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	87.1		% Recovery	M EPA 8015	3/3/2007

Approved By:

Joel Kiff



Project Name : Lim
Project Number : 2808

Sample: SB-1-60

Matrix : Soil

Lab Number: 55109-10

Report Number: 55109

Date: 3/12/2007

Sample Date :3/1/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	106		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	3/7/2007
1-Chlorooctadecane (Silica Gel Surr)	96.7		% Recovery	M EPA 8015	3/7/2007

Approved By:

Joel Kiff



Lim Project Name : Project Number: 2808

Matrix : Soil

Lab Number: 55109-11

Report Number: 55109

Date: 3/12/2007

Sample Date :2/27/2007

Sample: SB-2-5'

Sample Date :2/27/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	3/6/2007
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/6/2007
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	3/6/2007
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	3/7/2007
1-Chlorooctadecane (Silica Gel Surr)	92.5		% Recovery	M EPA 8015	3/7/2007

Approved By:



Project Name : Lim
Project Number : 2808

Matrix : Soil

Date: 3/12/2007

Report Number: 55109

Lab Number: 55109-13

Sample Date :2/27/2007

Sample: **SB-2-15'**

Sample Date :2/27/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	109		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	2.6	1.0	mg/Kg	M EPA 8015	3/8/2007
1-Chlorooctadecane (Silica Gel Surr)	109		% Recovery	M EPA 8015	3/8/2007

Approved By:

oel Kiff



Project Name: Lim
Project Number: 2808

Matrix : Soil

Lab Number : 55109-17

Report Number: 55109

Date: 3/12/2007

Sample Date :2/27/2007

Sample: **SB-3-15'**

Sample Date :2/27/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	106		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	16	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	73.2		% Recovery	M EPA 8015	3/3/2007

Approved By:

oel Kiff



Project Name: Lim Project Number: 2808

Sample: SB-4-15'

Matrix : Soil

Lab Number: 55109-22

Report Number: 55109

Date: 3/12/2007

Sample Date :2	1/27/2007
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Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/ Kg	EPA 8260B	3/3/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/ Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	4.2	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	97.3		% Recovery	M EPA 8015	3/3/2007

Approved By:



Sample: SB-5-15'

Matrix : Soil Lab Number : 55109-26

Report Number: 55109

Date: 3/12/2007

Sample Date :2/28/2007 Method Analysis Date Measured Reporting Method Limit Units Analyzed Value Parameter **EPA 8260B** 3/3/2007 0.0050 mg/Kg < 0.0050 Benzene mg/Kg **EPA 8260B** 3/3/2007 0.0050 < 0.0050 **Toluene EPA 8260B** 3/3/2007 < 0.0050 0.0050 mg/Kg Ethylbenzene **EPA 8260B** 3/3/2007 mg/Kg < 0.0050 0.0050 **Total Xylenes EPA 8260B** 3/3/2007 mg/Kg 0.0050 Methyl-t-butyl ether (MTBE) < 0.0050 mg/Kg **EPA 8260B** 3/3/2007 < 0.0050 0.0050 Diisopropyl ether (DIPE) 3/3/2007 mg/Kg EPA 8260B Ethyl-t-butyl ether (ETBE) < 0.0050 0.0050 **EPA 8260B** 3/3/2007 0.0050 mg/Kg < 0.0050 Tert-amyl methyl ether (TAME) 3/3/2007 0.0050 mg/Kg **EPA 8260B** Tert-Butanol < 0.0050 3/3/2007 **TPH as Gasoline** < 1.0 1.0 mg/Kg **EPA 8260B** 3/3/2007 0.0050 mg/Kg **EPA 8260B** < 0.0050 1,2-Dichloroethane mg/Kg **EPA 8260B** 3/3/2007 0.0050 < 0.0050 1,2-Dibromoethane % Recovery EPA 8260B 3/3/2007 104 Toluene - d8 (Surr) % Recovery EPA 8260B 3/3/2007 104 4-Bromofluorobenzene (Surr) 3/3/2007 % Recovery EPA 8260B 100 1,2-Dichloroethane-d4 (Surr) mg/Kg M EPA 8015 3/3/2007 TPH as Diesel (Silica Gel) < 1.0 1.0 % Recovery M EPA 8015 3/3/2007 77.9 1-Chlorooctadecane (Silica Gel Surr)

Approved By:

loel Kiff



Matrix : Soil

Lab Number : 55109-29

Report Number: 55109

Date: 3/12/2007

Sample Date :2/28/2007

Sample: SB-6-15'

Sample Date :2/28/2007	Measured	Method Reporting		Analysis	Date
Parameter	Value	<u>Limit</u>	Units	Method	<u>Analyze</u> d
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/3/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	3/3/2007
4-Bromofluorobenzene (Surr)	99.3		% Recovery	EPA 8260B	3/3/2007
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	1.2	1.0	mg/Kg	M EPA 8015	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	78.4		% Recovery	M EPA 8015	3/3/2007

Approved By:

oel Kiff



Date: 3/12/2007

Report Number: 55109

Matrix : Soil Lab Number: 55109-33 Sample: SB-7-15'

Sample Date :2/28/2007 Method Date Reporting Analysis Measured Limit Units Method Analyzed Value Parameter **EPA 8260B** 3/3/2007 0.0050 mg/Kg < 0.0050 Benzene 0.0050 mg/Kg **EPA 8260B** 3/3/2007 < 0.0050 Toluene mg/Kg **EPA 8260B** 3/3/2007 0.0050 < 0.0050 Ethylbenzene **EPA 8260B** 3/3/2007 < 0.0050 0.0050 mg/Kg **Total Xylenes EPA 8260B** 3/3/2007 < 0.0050 0.0050 mg/Kg Methyl-t-butyl ether (MTBE) 0.0050 mg/Kg **EPA 8260B** 3/3/2007 < 0.0050 Diisopropyl ether (DIPE) < 0.0050 0.0050 mg/Kg **EPA 8260B** 3/3/2007 Ethyl-t-butyl ether (ETBE) **EPA 8260B** 3/3/2007 0.0050 mg/Kg < 0.0050 Tert-amyl methyl ether (TAME) 0.0050 mg/Kg **EPA 8260B** 3/3/2007 < 0.0050 **Tert-Butanol** < 1.0 1.0 mg/Kg **EPA 8260B** 3/3/2007 **TPH as Gasoline** 0.0050 mg/Kg **EPA 8260B** 3/3/2007 < 0.0050 1,2-Dichloroethane mg/Kg **EPA 8260B** 3/3/2007 < 0.0050 0.0050 1,2-Dibromoethane 104 % Recovery **EPA 8260B** 3/3/2007 Toluene - d8 (Surr) % Recovery EPA 8260B 3/3/2007 4-Bromofluorobenzene (Surr) 105 103 % Recovery **EPA 8260B** 3/3/2007 1,2-Dichloroethane-d4 (Surr) < 1.0 1.0 mg/Kg M EPA 8015 3/3/2007 TPH as Diesel (Silica Gel) % Recovery M EPA 8015 3/3/2007 1-Chlorooctadecane (Silica Gel Surr) 74.2

Approved By:



Sample : **SB-1-20-23'** Mat

Matrix: Water Lab Number: 55109-36

Report Number: 55109

Date: 3/12/2007

Sample Date :3/1/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	33000	100	ug/L	EPA 8260B	3/7/2007
Toluene	39000	100	ug/L	EPA 8260B	3/7/2007
Ethylbenzene	2900	25	ug/L	EPA 8260B	3/6/2007
Total Xylenes	13000	25	ug/L	EPA 8260B	3/6/2007
Methyl-t-butyl ether (MTBE)	< 25	25	ug/L	EPA 8260B	3/6/2007
Diisopropyl ether (DIPE)	< 25	25	ug/L	EPA 8260B	3/6/2007
Ethyl-t-butyl ether (ETBE)	< 25	25	ug/L	EPA 8260B	3/6/2007
Tert-amyl methyl ether (TAME)	< 25	25	ug/L	EPA 8260B	3/6/2007
Tert-Butanol	< 150	150	ug/L	EPA 8260B	3/6/2007
TPH as Gasoline	160000	2500	ug/L	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 25	25	ug/L	EPA 8260B	3/6/2007
1,2-Dibromoethane	< 25	25	ug/L	EPA 8260B	3/6/2007
Toluene - d8 (Surr)	94.3		% Recovery	EPA 8260B	3/6/2007
4-Bromofluorobenzene (Surr)	96.6		% Recovery	EPA 8260B	3/6/2007
1,2-Dichloroethane-d4 (Surr)	98.9		% Recovery	EPA 8260B	3/6/2007
TPH as Diesel (Silica Gel)	< 200000	200000	ug/L	M EPA 8015	3/6/2007
Octacosane (Diesel Silica Gel Surr)	Diluted Out		% Recovery	M EPA 8015	3/6/2007

Approved By:

Joel Kiff



Matrix : Water

Lab Number: 55109-37

Report Number: 55109

Date: 3/12/2007

Sample: **SB-1-28-31'** Sample Date: 3/1/2007

Parameter Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1300	5.0	ug/L	EPA 8260B	3/6/2007
Toluene	3500	5.0	ug/L	EPA 8260B	3/6/2007
Ethylbenzene	1500	5.0	ug/L	EPA 8260B	3/6/2007
Total Xylenes	4400	5.0	ug/L	EPA 8260B	3/6/2007
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
Tert-amyl methyl ether (TAME)	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
Tert-Butanol	< 25	25	ug/L	EPA 8260B	3/6/2007
TPH as Gasoline	37000	500	ug/L	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
1,2-Dibromoethane	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
Toluene - d8 (Surr)	95.3		% Recovery	EPA 8260B	3/6/2007
4-Bromofluorobenzene (Surr)	96.6		% Recovery	EPA 8260B	3/6/2007
1,2-Dichloroethane-d4 (Surr)	97.6		% Recovery	EPA 8260B	3/6/2007
TPH as Diesel (Silica Gel)	< 1500	1500	ug/L	M EPA 8015	3/5/2007
Octacosane (Diesel Silica Gel Surr)	114		% Recovery	M EPA 8015	3/5/2007

Approved By:

Joel Kiff

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



Matrix: Water

Lab Number : 55109-38

Report Number: 55109

Date: 3/12/2007

Sample: **SB-1-51-53'** Sample Date:3/1/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	120	0.50	ug/L	EPA 8260B	3/6/2007
Toluene	320	0.50	ug/L	EPA 8260B	3/6/2007
Ethylbenzene	160	0.50	ug/L	EPA 8260B	3/6/2007
Total Xylenes	500	0.50	ug/L	EPA 8260B	3/6/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
TPH as Gasoline	5200	200	ug/L	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	3/6/2007
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	3/6/2007
1,2-Dichloroethane-d4 (Surr)	99.9		% Recovery	EPA 8260B	3/6/2007
TPH as Diesel (Silica Gel)	< 800	800	ug/L	M EPA 8015	3/5/2007
Octacosane (Diesel Silica Gel Surr)	102		% Recovery	M EPA 8015	3/5/2007

Approved By:

oel Kiff



Matrix : Water

Lab Number: 55109-39

Report Number: 55109

Date: 3/12/2007

Sample Date :2/27/2007

Sample: SB-2

Sample Date :2/27/2007		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.60	0.50	ug/L	EPA 8260B	3/5/2007
Toluene	2.8	0.50	ug/L	EPA 8260B	3/5/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Total Xylenes	0.77	0.50	ug/L	EPA 8260B	3/5/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Tert-Butanol	< 5.0	5.0	u g/L	EPA 8260B	3/5/2007
TPH as Gasoline	5200	200	ug/L	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Toluene - d8 (Surr)	90.7		% Recovery	EPA 8260B	3/5/2007
4-Bromofluorobenzene (Surr)	89.6		% Recovery	EPA 8260B	3/5/2007
1,2-Dichloroethane-d4 (Surr)	106		% Recovery	EPA 8260B	3/5/2007
TPH as Diesel (Silica Gel)	190000	500	ug/L	M EPA 8015	3/9/2007
Octacosane (Diesel Silica Gel Surr)	Diluted Out		% Recovery	M EPA 8015	3/9/2007

Approved By:

oel Kiff



Matrix : Water

Lab Number: 55109-40

Report Number: 55109

Date: 3/12/2007

Sample Date :2/27/2007

Sample: SB-3

Sample Date :2/27/2007		Method				
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	
Toluene	2.6	0.50	ug/L	EPA 8260B	3/6/2007	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	
Total Xylenes	0.88	0.50	ug/L	EPA 8260B	3/6/2007	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/6/2007	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	
Toluene - d8 (Surr)	97.2		% Recovery	EPA 8260B	3/6/2007	
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/6/2007	
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	3/6/2007	
TPH as Diesel (Silica Gel)	700	50	ug/L	M EPA 8015	3/9/2007	
Octacosane (Diesel Silica Gel Surr)	132		% Recovery	M EPA 8015	3/9/2007	

Approved By:

oel Kiff



Matrix : Water

Lab Number : 55109-41

Report Number: 55109

Date: 3/12/2007

Sample Date :2/27/2007

Sample: SB-4

Sample Date :2/27/2007						
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Toluene	2.7	0.50	ug/L	EPA 8260B	3/5/2007	
Ethylbenzene	6.8	0.50	ug/L	EPA 8260B	3/5/2007	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/5/2007	
TPH as Gasoline	260	50	ug/L	EPA 8260B	3/5/2007	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Toluene - d8 (Surr)	96.0		% Recovery	EPA 8260B	3/5/2007	
4-Bromofluorobenzene (Surr)	95.7		% Recovery	EPA 8260B	3/5/2007	
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	3/5/2007	
TPH as Diesel (Silica Gel)	7900	50	ug/L	M EPA 8015	3/3/2007	
Octacosane (Diesel Silica Gel Surr)	102		% Recovery	M EPA 8015	3/3/2007	

Approved By:

loel Kiff



Sample: SB-5 Matri

Matrix: Water Lab Number: 55109-42

Report Number: 55109

Date: 3/12/2007

Sample Date :2/28/2007 Method Date Analysis Measured Reporting Units Method Analyzed Value Limit Parameter **EPA 8260B** 3/5/2007 < 0.50 0.50 ug/L Benzene ug/L **EPA 8260B** 3/5/2007 2.8 0.50 Toluene 0.50 ug/L **EPA 8260B** 3/5/2007 < 0.50 Ethylbenzene **EPA 8260B** 3/5/2007 0.50 ug/L < 0.50 **Total Xylenes** 0.50 ug/L **EPA 8260B** 3/5/2007 < 0.50 Methyl-t-butyl ether (MTBE) EPA 8260B 3/5/2007 < 0.50 0.50 ug/L Diisopropyl ether (DIPE) **EPA 8260B** 3/5/2007 0.50 ug/L < 0.50 Ethyl-t-butyl ether (ETBE) 0.50 ug/L **EPA 8260B** 3/5/2007 < 0.50 Tert-amyl methyl ether (TAME) **EPA 8260B** 3/5/2007 < 5.0 5.0 ug/L **Tert-Butanol EPA 8260B** 3/5/2007 50 ug/L < 50 **TPH as Gasoline** < 0.50 0.50 ug/L **EPA 8260B** 3/5/2007 1,2-Dichloroethane 0.50 ug/L **EPA 8260B** 3/5/2007 < 0.50 1.2-Dibromoethane % Recovery 3/5/2007 EPA 8260B Toluene - d8 (Surr) 102 % Recovery **EPA 8260B** 3/5/2007 99.3 4-Bromofluorobenzene (Surr) 102 % Recovery EPA 8260B 3/5/2007 1,2-Dichloroethane-d4 (Surr) 3/6/2007 < 50 50 ug/L M EPA 8015 TPH as Diesel (Silica Gel) 3/6/2007 % Recovery M EPA 8015 Octacosane (Diesel Silica Gel Surr) 127

Approved By:

loel Kiff



Sample: SB-6

Matrix: Water

Lab Number: 55109-43

Report Number: 55109

Date: 3/12/2007

Sample Date :2/28/2007		Method				
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Toluene	2.3	0.50	ug/L	EPA 8260B	3/5/2007	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/5/2007	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/5/2007	
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	
Toluene - d8 (Surr)	95.7		% Recovery	EPA 8260B	3/5/2007	
4-Bromofluorobenzene (Surr)	96.3		% Recovery	EPA 8260B	3/5/2007	
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	3/5/2007	
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	3/9/2007	
Octacosane (Diesel Silica Gel Surr)	99.2		% Recovery	M EPA 8015	3/9/2007	

Approved By:

oel Kiff



Matrix : Water

Lab Number : 55109-44

Report Number: 55109

Date: 3/12/2007

Sample: **SB-7**Sample Date:2/28/2007

Sample Date .2/20/2007	8.6 · · · ·	Method		Analysis	Date
Parameter	Measured Value	Reporting Limit	Units	Method	Analyzed
Benzene	0.72	0.50	u g/L	EPA 8260B	3/5/2007
Toluene	1.6	0.50	ug/L	EPA 8260B	3/5/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Methyl-t-butyl ether (MTBE)	9.8	0.50	ug/L	EPA 8260B	3/5/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/5/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/5/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	3/5/2007
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	3/5/2007
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	3/5/2007
TPH as Diesel (Silica Gel)	190	50	ug/L	M EPA 8015	3/6/2007
Octacosane (Diesel Silica Gel Surr)	107		% Recovery	M EPA 8015	3/6/2007

Approved By:

oel Kiff

Date: 3/12/2007

QC Report : Method Blank Data

Project Name : Lim

Project Number: 2808

Parameter	Measured Value	Method Reporting Limit	g Units	Analysis Method	Date Analyz <u>ed</u>	Parameter	Measured Value	Method Reportir Limit	ng Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015		-					
	90.3		%	M EPA 8015		Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	90.3		76	WIEFA 0013	3/3/2007	Toluenė	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Dieseł (Silica Gel)	< 50	50	ug/L	M EPA 8015	3/3/2007	Ethylbenzene	< 0.0050 < 0.0050	0.0050 0.0050	mg/Kg mg/Kg	EPA 8260B EPA 8260B	3/3/2007 3/3/2007
	93.2		%	M EPA 8015		Total Xylenes					
Octacosane (Diesel Silica Gel Surr)	93.2		70	IN EL A COLO	01012001	Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007 3/3/2007
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	3/6/2007	Diisopropyl ether (DIPE)	< 0.0050 < 0.0050	0.0050 0.0050	mg/Kg mg/Kg	EPA 8260B EPA 8260B	3/3/2007
,			%	M EPA 8015		Ethyl-t-butyl ether (ETBE) Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
1-Chlorooctadecane (Silica Gel Surr)	75.4		70	(V) EFA 0010	0/0/2001	Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	3/6/2007	TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/3/2007
Octacosane (Diesel Silica Gel Surr)	94.8		%	M EPA 8015	3/6/2007	1.2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
Goldoodalia (Biobo) Gillion Gol Goli,						1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	3/7/2007	Toluene - d8 (Surr)	101	0.0000	%	EPA 8260B	3/3/2007
Octacosane (Diesel Silica Gel Surr)	93.8		%	M EPA 8015	3/7/2007	4-Bromofluorobenzene (Surr)	97.4		%	EPA 8260B	3/3/2007
Oblacobario (Diccor Simba Oblacor)						1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	3/3/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	3/9/2007	1,2-Dichioroethane-d4 (Sun)	100		70	21710200	0.0.200.
Octacosane (Diesel Silica Gel Surr)	93.5		%	M EPA 8015	3/9/2007	Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Compositio (Discours and Tol. Tol.)						Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	Ethylbenzene	< 0.0050	0,0050	mg/Kg	EPA 8260B	3/6/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/6/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/2/2007	1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	Toluene - d8 (Surr)	99.3		%	EPA 8260B	3/6/2007
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2007	4-Bromofluorobenzene (Surr)	96.9		%	EPA 8260B	3/6/2007
Toluene - d8 (Surr)	97.9		%	EPA 8260B	3/2/2007	1,2-Dichloroethane-d4 (Surr)	106		%	EPA 8260B	3/6/2007
4-Bromofiuorobenzene (Surr)	97.1		%	EPA 8260B	3/2/2007						
1,2-Dichloroethane-d4 (Surr)	105		%	EPA 8260B	3/2/2007						

Date: 3/12/2007

QC Report : Method Blank Data

Project Name : Lim

Project Number: 2808

Parameter Measured Value Reprint Measured Value Merit Method Parameter Measured Value Membed Management Analysis Date Management FPH as Gasoline < 50 95 up. EPA 82008 36/2007 Benzene < 0.50 0.50 upl. EPA 82008 36/2007 Benzene < 0.50 0.50 upl. EPA 82008 35/2007 Elhylbenzene < 0.50 0.50 upl. EPA 82008 35/2007 Total Nylenes < 0.50 0.50 upl. EPA 82008 35/2007 Total Nylenes < 0.50 0.50 upl. EPA 82008 35/2007 Methyl-budy ether (MTBE) < 0.50 upl. EPA 82008 36/2007 Total Xylenes < 0.50 0.50 upl. EPA 82008 35/2007 Ethyl-budy ether (MTBE) < 0.50 upl. EPA 82008 35/2007 Total Xylenes < 0.50 0.50 upl. EPA 82008 35/2007 Tethatmyl ether (TBE) < 0.50 upl. EPA 82008 36/2007 Total Xylenes			Method			5.		14	Method		Ameliain	Data
Pril as Casoline	Parameter						Parameter					
Benzene Company Comp	•	-					Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Toluene	TTT do Cosomic	*-		-9 -			Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Ethylerome (Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Total Xylenes	Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Methyl-buyl ether (MTBE)	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Dissorproyl Febru (IDF)	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Employsement (ETBE) Co.50 Co.50	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Tert-amy methyl e/ser (TAME)	Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Tert-Butanol	Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
TPH as Gasoline < 50 50 ug/L EPA 8260B 3/5/2007 1,2-Dibromoethane < 0.50 0.50 ug/L EPA 8260B 3/6/2007 1,2-Dibromoethane-d4 (Surr) 100	Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/6/2007
1,2-Dichloroethane	Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/5/2007	1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
1,2-Dipromoethane	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/5/2007	1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Tolluene - d8 (Surr) 95.5 % EPA 8260B 3/5/2007 1,2-Dichloroethane-d4 (Surr) 103 % EPA 8260B 3/5/2007 1,2-Dichloroethane-d4 (Surr) 94.7 % EPA 8260B 3/5/2007 Benzene < 0.50 0.50 ug/L EPA 8260B 3/5/2007 1,2-Dichloroethane-d4 (Surr) 102 % EPA 8260B 3/5/2007 Benzene < 0.50 0.50 ug/L EPA 8260B 3/5/2007	1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	Toluene - d8 (Surr)	103		%	EPA 8260B	3/6/2007
## ABromofluorobenzene (Surr) 94.7	1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007	4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	3/6/2007
1.2-Dichloroethane-d4 (Surr) 102 % EPA 8260B 3/5/2007 Benzene < 0.50 0.50 ug/L EPA 8260B 3/5/2007 Benzene < 0.50 0.50 ug/L EPA 8260B 3/5/2007 Ethylbenzene < 0.50 0.50 ug/L EPA 8260B 3/5/2007 Toluene < 0.50 0.50 ug/L EPA 8260B 3/5/2007 Tolal Xylenes < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Tolal Xylenes < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Methyl-t-butyl ether (MTBE) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Methyl-t-butyl ether (MTBE) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Methyl-t-butyl ether (DIPE) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Diisopropyl ether (DIPE) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Ethyl-t-butyl ether (ETBE) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Ethyl-t-butyl ether (ETBE) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Ethyl-t-butyl ether (ETAME) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Tert-amyl methyl ether (TAME) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Tert-Butanol < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Tert-	Toluene - d8 (Surr)	95.5		%	EPA 8260B	3/5/2007	1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	3/6/2007
Toluene County Toluene County Toluene County Toluene County Toluene County Toluene County Coun	4-Bromofluorobenzene (Surr)	94.7		%	EPA 8260B	3/5/2007						
Benzene County Section C	1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	3/5/2007	Benzene	< 0.50	0.50	•		
Toluene										-		
Ethylbenzene	Benzene	< 0.50	0.50	ug/L	EPA 8260B		•			-		
Total Xylenes	Toluene	< 0.50	0.50	ug/E	EPA 8260B	3/6/2007	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Methyl-t-butyl ether (MTBE) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Ethyl-t-butyl ether (ETBE) < 0.50 0.50 ug/L EPA 8260B 3/6/2007 Diisopropyl ether (DIPE) < 0.50	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B		Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Diisopropyl ether (DIPE)	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Ethyl-t-butyl ether (ETBE)	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Tert-amyl methyl ether (TAME) < 0.50	Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	Tert-amyl methyl ether (TAME)	< 0.50		ug/L		
Tert-Butanol < 5.0 5.0 ug/L EPA 8260B 3/6/2007 1,2-Dibromoethane < 0.50 0.50 ug/L EPA 8260B 3/6/2007 1,2-Dichloroethane < 0.50	Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/5/2007
1,2-Dichloroethane < 0.50	Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
1,2-Dibromoethane < 0.50	Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007	1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/5/2007
Toluene - d8 (Surr) 102 % EPA 8260B 3/6/2007 1,2-Dichloroethane-d4 (Surr) 106 % EPA 8260B 3/5/2007 4-Bromofluorobenzene (Surr) 108 % EPA 8260B 3/6/2007	1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	Toluene - d8 (Surr)	89.7		%	EPA 8260B	3/5/2007
4-Bromofluorobenzene (Surr) 108 % EPA 8260B 3/6/2007	1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007	4-Bromofluorobenzene (Surr)	- 97.4		%	EPA 8260B	3/5/2007
4-Bromofluorobenzene (Surr) 108 % EPA 8260B 3/6/2007	Toluene - d8 (Surr)	102		%	EPA 8260B	3/6/2007	1,2-Dichloroethane-d4 (Surr)	106		%	EPA 8260B	3/5/2007
A 101000	• •			%	EPA 8260B	3/6/2007						
	` ,	104		%	EPA 8260B	3/6/2007						

Date: 3/12/2007

QC Report : Method Blank Data

Project Name : Lim

Project Number: 2808

Parameter	Measured Value	Method Reporting Limit	g Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/6/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/6/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Toluene - d8 (Surr)	96.9		%	EPA 8260B	3/6/2007
4-Bromofluorobenzene (Surr)	105		%	EPA 8260B	3/6/2007
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	3/6/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/6/2007

Method Measured Reporting Analysis Date Limit Method Analyzed Value Units Parameter

Date: 3/12/2007

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name: Lim Project Number: 2808

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units _	Analysis Method	Date Analyzed		Duplicat Spiked Sample Percent Recov.	Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	882	945	ug/L	M EPA 8015	3/3/07	88.2	94.5	6.91	70-130	25
TPH as Diesel	Blank	<50	1000	1000	850	857	ug/L	M EPA 8015	3/6/07	85.0	85.7	0.852	70-130	25
TPH as Diesel	Blank	<50	1000	1000	843	903	ug/L	M EPA 8015	3/7/07	84.3	90.3	6.86	70-130	25
Benzene Toluene	55062-04 55062-04	<0.0050 <0.0050	0.0400 0.0400	0.0393 0.0393	0.0413 0.0414	0.0398 0.0394	mg/Kg mg/Kg		3/2/07 3/2/07	103 103	101 100	1.88 2.94	70-130 70-130	25 25
Tert-Butanol	55062-04	<0.0050	0.200	0.196	0.203	0.192	mg/Kg		3/2/07	102	97.6	4.07	70-130	25
Methyl-t-Butyl Ethe		<0.0050	0.0400	0.0393	0.0402	0.0389	mg/Kg	EPA 8260B	3/2/07	100	99.0	1.43	70-130	25
, ,														
Benzene	55109-29	<0.0050	0.0395	0.0394	0.0408	0.0414	mg/Kg	EPA 8260B	3/3/07	103	105	1.82	70-130	25
Toluene	55109-29	<0.0050	0.0395	0.0394	0.0403	0.0404	mg/Kg	EPA 8260B	3/3/07	102	103	0.794	70-130	25
Tert-Butanol	55109-29	<0.0050	0.198	0.197	0.186	0.185	mg/Kg	EPA 8260B	3/3/07	94.0	94.1	0.0538	70-130	25
Methyl-t-Butyl Ethe	er 55109-29	<0.0050	0.0395	0.0394	0.0398	0.0407	mg/Kg	EPA 8260B	3/3/07	101	103	2.65	70-130	25
Benzene	55109-05	<0.0050	0.0394	0.0398	0.0382	0.0373	mg/Kg	EPA 8260B	3/6/07	96.8	93.8	3.11	70-130	25
Toluene	55109-05	<0.0050	0.0394	0.0398	0.0372	0.0362	mg/Kg	EPA 8260B	3/6/07	94.4	90.9	3.74	70-130	25
Tert-Butanol	55109-05	<0.0050	0.197	0.199	0.164	0.169	mg/Kg	EPA 8260B	3/6/07	83.1	85.0	2.22	70-130	25
Methyl-t-Butyl Ethe		<0.0050	0.0394	0.0398	0.0374	0.0370	mg/Kg		3/6/07	94.9	92.9	2.12	70-130	25
Benzene	55151-08	<0.50	40.0	39.8	41.0	42.0	ug/L	EPA 8260B	3/6/07	102	106	3.06	70-130	25

Date: 3/12/2007

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name: Project Number: 2808

Deromotor	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Percent	Duplicate Spiked Sample Percent Recov.	e Relative Percent Diff.		Relative Percent Diff. Limit
Parameter Toluene	55151-08	<0.50	40.0	39.8	40.6	40.4	ug/L	EPA 8260B	3/6/07	102	102	0.0552	70-130	25
Tert-Butanol	55151-08	11	200	199	200	203	ug/L	EPA 8260B	3/6/07	94.8	96.7	2.01	70-130	25
Methyl-t-Butyl Ether		1.9	40.0	39.8	41.0	43.3	ug/L	EPA 8260B	3/6/07	97.8	104	6.23	70-130	25
Wietry C Baty Earles							_							
Benzene	55151-01	<0.50	40.0	40.0	39.1	38.3	ug/L	EPA 8260B	3/5/07	97.8	95.8	2.16	70-130	25
Toluene	55151-01	<0.50	40.0	40.0	37.2	36.3	ug/L	EPA 8260B	3/5/07	93.0	90.8	2.30	70-130	25
Tert-Butanol	55151-01	<5.0	200	200	196	193	ug/L	EPA 8260B	3/5/07	98.2	96.7	1.59	70-130	25
Methyl-t-Butyl Ethe	r 55151-01	<0.50	40.0	40.0	39.6	39.8	ug/L	EPA 8260B	3/5/07	98.9	99.6	0.698	70-130	25
, ,														
Benzene	55108-03	<0.50	40.0	40.0	37.9	36.7	ug/L	EPA 8260B	3/6/07	94.9	91.8	3.26	70-130	25
Toluene	55108-03	< 0.50	40.0	40.0	39.0	37.1	ug/L	EPA 8260B	3/6/07	97.6	92.8	5.08	70-130	25
Tert-Butanol	55108-03	<5.0	200	200	211	203	ug/L	EPA 8260B	3/6/07	105	102	3.63	70-130	25
Methyl-t-Butyl Ethe	r 55108-03	<0.50	40.0	40.0	38.8	39.6	ug/L	EPA 8260B	3/6/07	97.1	98.9	1.81	70-130	25
•														
Benzene	55151-03	< 0.50	40.0	40.0	42.5	41.6	ug/L	EPA 8260B	3/5/07	106	104	2.05	70-130	25
Toluene	55151-03	< 0.50	40.0	40.0	41.7	41.0	ug/L	EPA 8260B	3/5/07	104	102	1.87	70-130	25
Tert-Butanol	55151-03	240	200	200	439	430	ug/L	EPA 8260B	3/5/07	101	97.2	4.24	70-130	25
Methyl-t-Butyl Ethe	r 55151-03	1.9	40.0	40.0	42.9	42.7	ug/L	EPA 8260B	3/5/07	102	102	0.433	70-130	25
														0-
Benzene	55151-02	6.0	40.0	40.0	45.3	43.7	ug/L	EPA 8260B	3/5/07	98.3	94.3	4.16	70-130	25
Toluene	55151-02	2.6	40.0	40.0	39.2	38.5	ug/L	EPA 8260B	3/5/07	91.6	89.8	1.96	70-130	25
Tert-Butanol	55151-02	<5.0	200	200	201	215	ug/L	EPA 8260B	3/5/07	101	107	6.61	70-130	25
Methyl-t-Butyl Ethe	r 55151-02	<0.50	40.0	40.0	39.7	39.8	ug/L	EPA 8260B	3/5/07	99.2	99.5	0.329	70-130	25

Date: 3/12/2007

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name: Lim Project Number: 2808

	Spiked	Sample	Spike	Spike Dup.	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov	Duplicate Spiked Sample Percent Recov.	Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Parameter	Sample	Value	Level	Level	value	Value	Onits _	Wictioa	7 (naiy 200	110001	IXCCOV.			
Benzene	55108-02	<0.50	40.0	40.0	39.0	37.6	ug/L	EPA 8260B	3/6/07	97.5	93.9	3.77	70-130	25
Toluene	55108-02	<0.50	40.0	40.0	37.2	35.8	ug/L	EPA 8260B	3/6/07	93.1	89.5	3.94	70-130	25
Tert-Butanol	55108-02	<5.0	200	200	190	193	ug/L	EPA 8260B	3/6/07	94.9	96.4	1.54	70-130	25
Methyl-t-Butyl Ethe	r 55108-02	<0.50	40.0	40.0	37.9	37.2	ug/L	EPA 8260B	3/6/07	94.7	93.0	1.78	70-130	25
Benzene	55171-09	<0.50	40.0	40.0	40.4	38.7	ug/L	EPA 8260B	3/6/07	101	96.9	4.22	70-130	25
Toluene	55171-09	<0.50	40.0	40.0	41.8	40.3	ug/L	EPA 8260B	3/6/07	105	101	3.82	70-130	25
Tert-Butanol	55171-09	<5.0	200	200	202	206	ug/L	EPA 8260B	3/6/07	101	103	1.82	70-130	25
Methyl-t-Butyl Ethe		<0.50	40.0	40.0	44.9	45.0	ug/L	EPA 8260B	3/6/07	112	112	0.372	70-130	25
TPH as Diesel	55109-09	6.4	20.0	20.0	18.0	18.1	mg/Kg	M EPA 8015	3/3/07	68.0	68.4	0.643	60-140	25
TPH as Diesel	55068-02	1.5	20.0	20.0	19.2	19.6	mg/Kg	M EPA 8015	3/7/07	89.4	91.1	1.91	60-140	25
TPH as Diesel	Blank	<50	1000	1000	838	883	ug/L	M EPA 8015	3/9/07	83.8	88.3	5.16	70-130	25

Date: 3/12/2007

QC Report : Laboratory Control Sample (LCS)

Project Name: Lim

Project Number: 2808

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0399	mg/Kg	EPA 8260B	3/2/07	104	70-130
Toluene	0.0399	mg/Kg	EPA 8260B	3/2/07	101	70-130
Tert-Butanol	0.200	mg/Kg	EPA 8260B	3/2/07	95.6	70-130
Methyl-t-Butyl Ether	0.0399	mg/Kg	EPA 8260B	3/2/07	99.3	70-130
, ,						
Benzene	0.0398	mg/Kg	EPA 8260B	3/3/07	108	70-130
Toluene	0.0398	mg/Kg	EPA 8260B	3/3/07	105	70-130
Tert-Butanol	0.199	mg/Kg	EPA 8260B	3/3/07	98.8	70-130
Methyl-t-Butyl Ether	0.0398	mg/Kg	EPA 8260B	3/3/07	110	70-130
		0 0				
Benzene	0.0396	mg/Kg	EPA 8260B	3/6/07	101	70-130
Toluene	0.0396	mg/Kg	EPA 8260B	3/6/07	97.6	70-130
Tert-Butanol	0.198	mg/Kg	EPA 8260B	3/6/07	98.5	70-130
Methyl-t-Butyl Ether	0.0396	mg/Kg	EPA 8260B	3/6/07	104	70-130
,						
Benzene	40.0	ug/L	EPA 8260B	3/6/07	104	70-130
Toluene	40.0	ug/L	EPA 8260B	3/6/07	100	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/6/07	99.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/6/07	104	70-130
		J				
Benzene	40.0	ug/L	EPA 8260B	3/5/07	96.0	70-130

Date: 3/12/2007

QC Report : Laboratory Control Sample (LCS)

Project Name: Lim

Project Number: 2808

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	3/5/07	93.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/5/07	97.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/5/07	96.9	70-130
		3				
Benzene	40.0	ug/L	EPA 8260B	3/6/07	92.5	70-130
Toluene	40.0	ug/L	EPA 8260B	3/6/07	97.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/6/07	105	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/6/07	94.0	70-130
		3				
Benzene	40.0	ug/L	EPA 8260B	3/5/07	104	70-130
Toluene	40.0	ug/L	EPA 8260B	3/5/07	105	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/5/07	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/5/07	106	70-130
		-				
Benzene	40.0	ug/L	EPA 8260B	3/5/07	99.8	70-130
Toluene	40.0	ug/L	EPA 8260B	3/5/07	93.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/5/07	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/5/07	102	70-130
		_				
Benzene	40.0	ug/L	EPA 8260B	3/6/07	98.6	70-130
Toluene	40.0	ug/L	EPA 8260B	3/6/07	96.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/6/07	97.2	70-130
		-				

Date: 3/12/2007

QC Report : Laboratory Control Sample (LCS)

Project Name : Lim

Project Number: 2808

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/6/07	96.7	70-130
Benzene	40.0	ug/L	EPA 8260B	3/6/07	96.2	70-130
Toluene	40.0	ug/L	EPA 8260B	3/6/07	99.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/6/07	100	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/6/07	104	70-130
TPH as Diesel	20.0	mg/Kg	M EPA 8015	3/3/07	88.3	70-130
TPH as Diesel	20.0	mg/Kg	M EPA 8015	3/6/07	86.2	70-130

Approved By:

Joe Kiff

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

Chain of Custody

SAMPLER (SIGNATURE)												eq						ı	_	_
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ANALYSIS RE(SPECIAL INSTRUCTIONS:	<u> JUEST</u>		·	/ WIBE & BTEX 0/8015-6020;	TPH-DIESEL W/511100 C.J. (EPA 3510/8015) C.J.	TPH-DIESEL & MOTOR OIL [EPA 3510/8015]	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EFA 625/8270)	크년 -	≘ (5) 7000)			ORGANOPHOSPHORUS PESTIGIDES (EPA 8140 EPA 608/8080)		(EPA 6010)	PURGEABLE HALOCARBONS (EPA 601/8010)			18420 5	EDF
SAMPLE 10.	3-1-07	940	MATRIX	<u> </u>	TPH-DIESEL (EPA 3510/	TPH-DIESEL (EPA 35107)	VOLATILE OI (EPA 624/E	SEMI-VOLAT (EPA 625/8	OIL & GREASE (EPA 5520)	LUST METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PES (EPA 6087	ORGANOPH PESTICIDES EPA 608/8	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL o (EPA 6010)	PURGEABLE F (EPA 601/80	MULTI-RANGE HYDROCARBONS	SEJCA-GEL CLEANUP	70H-4/07EX	HOLD
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208 W. El Pintado Road Chain of Custody Danville, CA 94526 (925) 820-9391 FAX (925) 837-4853 SAMPLER (SIGNATURE)
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Aqua Science Engineers, inc.

Aqua Science Engineers, inc. 208 W. El Pintado Road Danville, CA 94526 Chain of Custody (925) 820-9391 FAX (925) 837-4853 SAMPLER (SIGNATURE) M. Funs Lim PROJECT NAME Street, Oakland MIDRESS 250 ANALYSIS REQUEST SPECIAL INSTRUCTIONS: SAMPLE ID. 2-27-07 1225 X 227-17 12 30 2-28-07 911) 910 X 3 X X 1130 χ RELINQUISHED BY: RECEIVED BY: COMMENTS: CLU QUISHED BY: RECEIVED BY LABORATORY: 1+Cl=VUA (signature) (time) (signature) (time) sequesture) (time) M. Rawer 3-107 Ron McGee 030207 TURN AROUND TIME printed name) (date) (printed name) (printed name) (date Kiff Analytical Company-(date) (date) STANDARD 24Hr 48Hr 72Hr Company-ASE, INC. Company-OTHER:

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

Chain of Custody

SAMPLER (SIGNATURE)				j									<i></i>			PA(ل ق	-5	
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Aqua Science Engineers, Inc. 208 W. El Pintado Road Chain of Custody Danville, CA 94526 (925) 820-9391 FAX (925) 837-4853 SAMPLER (SIGNATURE) Lim PROTECT NAME M. Ru ADDRESS 250 Street Oaklad ANALYSIS REQUEST SPECIAL INSTRUCTIONS: HCLD SAMPLE ID. 58-7 2-28-07 14UU W RELINQUISHED BY: COMMENTS: RECEIVED BY: ELL PROUISHLO BY: RECEIVED BY LABORATORY: 1800 M. Br Rommeson 1154 HU = VOA; (signature) (signature) (signature) (time) (time) admature) (time) M. Rauser 3-1-07 RonMcGer 030207 TURN AROUND TIME (printed name) (date) (printed name) (date) (date) STANDARD 24Hr 48Hr 72Hr OTHER: Company-ASE, INC. ompany-



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

APPENDIX D

Analytical Reports for Soil Vapor Samples



Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- · Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

Hours 8:00 A.M to 6:00 P.M. Pacific



0703294 **WORK ORDER #:**

Work Order Summary

CLIENT:

Mr. Robert Kitay

Aqua Science Engineering

208 West El Pintado Danville, CA 95426

BILL TO: Mr. Robert Kitay

Aqua Science Engineering 208 West El Pintado

Danville, CA 95426

PHONE:

925-820-9391

P.O. #

FAX:

925-837-4853

PROJECT#

2808 Lim

DATE RECEIVED:

03/12/2007

CONTACT:

Sarah Nguyen

DATE COMPLETED:

03/23/2007

			RECEIPT
FRACTION_#	NAME	<u>TEST</u>	VAC./PRES.
01A	SV-1	Modified TO-3	1.0 "Hg
02A	SV-2	Modified TO-3	5.5 "Hg
03A	SV-3	Modified TO-3	3.0 "Hg
04A	SV-4	Modified TO-3	5.5 "Hg
05A	SV-5	Modified TO-3	4.5 "Hg
06A	SV-7	Modified TO-3	5.0 "Hg
07A	Lab Blank	Modified TO-3	NA
08A	LCS	Modified TO-3	NA
08B	LCS	Modified TO-3	NA

south of truman CERTIFIED BY:

03/23/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE Modified TO-3 Aqua Science Engineering Workorder# 0703294

Six 1 Liter Summa Canister samples were received on March 12, 2007. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with photo ionization and flame ionization detection. The method involves concentrating up to 200 mL of sample. The concentrated aliquot is then dry purged to remove water vapor prior to entering the chromatographic system. The TPH (Gasoline Range) results are calculated using the response factor of Gasoline and correspond to the range of hydrocarbons from C5 to C10. A molecular weight of 100 is used to convert the TPH (Gasoline Range) ppmv result to ug/L.

See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

Requirement	TO-3	ATL Modifications
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch = 20 samples</td
Initial Calibration Calculation	4-point calibration using a linear regression model	5-point calibration using average Response Factor
Initial Calibration Frequency	Weekly	When daily calibration standard recovery is outside 75 - 125 %, or upon significant changes to procedure or instrumentation
Moisture Control	Nafion system	Sorbent system
Minimum Detection Limit (MDL)	Calculated using the equation DL = A+3.3S, where A is intercept of calibration line and S is the standard deviation of at least 3 reps of low level standard	40 CFR Pt. 136 App. B
Preparation of Standards	Levels achieved through dilution of gas mixture	Levels achieved through loading various volumes of the gas mixture

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The recovery of surrogate Fluorobenzene in samples SV-1, SV-2, SV-3, SV-4 and SV-7 was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.



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



Summary of Detected Compounds MODIFIED EPA METHOD TO-3 GC/PID/FID

Client Sample ID: SV-1

Lab ID#: 0703294-01A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	(ppmv)	(uG/L)
Benzene	0.0021	0.0067	0.40	1.3
Toluene	0.0021	0.0079	0.21	0.78
Ethyl Benzene	0.0021	0.0091	0.031	0.13
m.p-Xylene	0.0021	0.0091	0.074	0.32
o-Xylene	0.0021	0.0091	0.044	0.19
TPH (Gasoline Range)	0.052	0.21	7.3	30

Client Sample ID: SV-2

Lab ID#: 0703294-02A

Compound	Rot. Limit (ppmv)	Rpt. Limit (uG/L)	(ppmv)	(uG/L)
Benzene	0.0025	0.0079	0.19	0.62
Toluene	0.0025	0.0093	0.16	0.62
Ethyl Benzene	0.0025	0.011	0.058	0.25
m.p-Xylene	0.0025	0.011	0.082	0.36
o-Xylene	0.0025	0.011	0.042	0.18
TPH (Gasoline Range)	0.062	0.25	10	42

Client Sample ID: SV-3

Lab ID#: 0703294-03A

Compound	Rot. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0022	0.0072	0.13	0.42
Toluene	0.0022	0.0084	0.22	0.83
Ethyl Benzene	0.0022	0.0097	0.12	0.55
m,p-Xylene	0.0022	0.0097	0.17	0.74
o-Xylene	0.0022	0.0097	0.075	0.32
TPH (Gasoline Range)	0.056	0.23	12	47

Client Sample ID: SV-4

Lab ID#: 0703294-04A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0025	0.0079	0.11	0.36
Toluene	0.0025	0.0093	0.23	0.86



Summary of Detected Compounds MODIFIED EPA METHOD TO-3 GC/PID/FID

Client Sample ID: SV-4

Lab ID#: 0703294-04A				
Ethyl Benzene	0.0025	0.011	0.14	0.59
m.p-Xylene	0.0025	0.011	0.18	0.77
o-Xvlene	0.0025	0.011	0.048 M	0.21 M
TPH (Gasoline Range)	0.062	0.25	16	64

Client Sample ID: SV-5

Lab ID#: 0703294-05A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	(ppmv)	(uG/L)
Benzene	0.0024	0.0076	0.022	0.070
Toluene	0.0024	0.0090	0.019	0.071
Ethyl Benzene	0.0024	0.010	0.0040	0.017
m,p-Xylene	0.0024	0.010	0.0086	0.038
o-Xylene	0.0024	0.010	0.0047	0.020
TPH (Gasoline Range)	0.060	0.24	1.0	4.2

Client Sample ID: SV-7

Lab ID#: 0703294-06A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0032	0.010	0.83	2.7
Toluene	0.0032	0.012	0.36	1.4
Ethyl Benzene	0.0032	0.014	0.057	0.25
m,p-Xylene	0.0032	0.014	0.14	0.59
o-Xylene	0.0032	0.014	0.081	0.35
TPH (Gasoline Range)	0.081	0.33	16	64



Client Sample ID: SV-1 Lab ID#: 0703294-01A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	6031411 2.09	Date of Collection: 3/5/07 Date of Analysis: 3/14/07 01:32 PM			
Compound	Rpt. Limit Rpt. Li (ppmv) (uG/L		Amount (ppmv)	Amount (uG/L)	
Benzene	0.0021.	0.0067	0.40	1.3	
Toluene	0.0021	0.0079	0.21	0.78	
Ethyl Benzene	0.0021	0.0091	0.031	0.13	
m,p-Xylene	0.0021	0.0091	0.074	0.32	
o-Xylene	0.0021	0.0091	0.044	0.19	
TPH (Gasoline Range)	0.052	0.21	7.3	30	

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: 1 Liter Summa Canister

Container Type: 1 Liter Summa Camster	Method	
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	151 Q	75-150
Fluorobenzene (PID)	153 Q	75-125



Client Sample ID: SV-2 Lab ID#: 0703294-02A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	6031412 2.47	Date of Collection: 3/5/07 Date of Analysis: 3/14/07 01:59 PM		
Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0025	0.0079	0.19	0.62
Toluene	0.0025	0.0093	0.16	0.62
Ethyl Benzene	0.0025	0.011	0.058	0.25
m,p-Xylene	0.0025	0.011	0.082	0.36
o-Xylene	0.0025	0.011	0.042	0.18
TPH (Gasoline Range)	0.062	0.25	10	42

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: 1 Liter Summa Canister

		Method
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	134	75-150
Fluorobenzene (PID)	127 Q	75-125



Client Sample ID: SV-3 Lab ID#: 0703294-03A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	6031413 2.24		Date of Collection: 3/5/07 Date of Analysis: 3/14/07 02:25 P		
Compound	Rpt. Limit (ppmv)	Rpt. Limit Amount (uG/L) (ppmv)		Amount (uG/L)	
Benzene	0.0022	0.0072	· 0.13	0.42	
Toluene	0.0022	0.0084	0.22	0.83	
Ethyl Benzene	0.0022	0.0097	0.12	0.55	
m,p-Xylene	0.0022	0.0097	0.17	0.74	
o-Xylene	0.0022	0.0097	0.075	0.32	
TPH (Gasoline Range)	0.056	0.23	12	47	

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type. 1 Elect Callinia Callicia.		Method
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	137	75-150
Fluorobenzene (PID)	137 Q	75-125



Client Sample ID: SV-4 Lab ID#: 0703294-04A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	Factor: 2.47 Rpt. Limit Rpt. Limit		Date of Collection: 3/5/07 Date of Analysis: 3/14/07 02:58 PM		
Compound			Amount Am (ppmv) (u		
Benzene	0.0025	0.0079	0.11	0.36	
Toluene	0.0025	0.0093	0.23	0.86	
Ethyl Benzene	0.0025	0.011	0.14	0.59	
m,p-Xylene	0.0025	0.011	0.18	0.77	
o-Xylene	0.0025	0.011	0.048 M	0.21 M	
TPH (Gasoline Range)	0.062	0.25	16	64	

M = Reported value may be biased due to apparent matrix interferences.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

		Method
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	128	75-150
Fluorobenzene (PID)	130 Q	75-125



Client Sample ID: SV-5 Lab ID#: 0703294-05A

File Name: Dil. Factor:	6031415 2.38		Date of Collection: 3/5/07 Date of Analysis: 3/14/07 03:28 PM		
Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)	
Benzene	0.0024	0.0076	0.022	0.070	
Toluene	0.0024	0.0090	0.019	0.071	
Ethyl Benzene	0.0024	0.010	0.0040	0.017	
m,p-Xylene	0.0024	0.010	0.0086	0.038	
o-Xylene	0.0024	0.010	0.0047	0.020	
TPH (Gasoline Range)	0.060	0.24	1.0	4.2	

		Method
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	98	75-150
Fluorobenzene (PID)	100	75-125



Client Sample ID: SV-7 Lab ID#: 0703294-06A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	6031416 Date of Collection: 3/5/07 3,23 Date of Analysis: 3/14/07 04			
Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	. 0.0032	0.010	0.83	. 2.7
Toluene	0.0032	0.012	0.36	1.4
Ethyl Benzene	0.0032	0.014	0.057	0.25
m,p-Xylene	0.0032	0.014	0.14	0.59
o-Xylene	0.0032	0.014	0.081	0.35
TPH (Gasoline Range)	0.081	0.33	16	64

Q = Exceeds Quality Control limits, possibly due to matrix effects.

		Method
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	165 Q	75-150
Fluorobenzene (PID)	162 Q	75-125



Client Sample ID: Lab Blank Lab ID#: 0703294-07A

File Name: Dil. Factor:	6031403 1.00		Date of Collection: NA Date of Analysis: 3/14/07 08:47 AM		
Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount Amou (ppmv) (uG/		
Benzene	0.0010	0.0032	Not Detected	Not Detected	
Toluene	0.0010	0.0038	Not Detected	Not Detected	
Ethyl Benzene	0.0010	0.0043	Not Detected	Not Detected	
m.p-Xylene	0.0010	0.0043	Not Detected	Not Detected	
o-Xylene	0.0010	0.0043	Not Detected	Not Detected	
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected	

		METICA
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	89	75-150
Fluorobenzene (PID)	90	75-125



Client Sample ID: LCS Lab ID#: 0703294-08A

File Name: Dil. Factor:	6031417b 1.00		ollection: NA nalysis: 3/14/07 04:33 PM	
Compound			%Recovery	
Benzene			. 88	
Toluene			86	
Ethyl Benzene			82	
m,p-Xylene			81	
o-Xylene			80	
Container Type: NA - Not App	licable			
7,			Method	
Surrogates		%Recovery	Limits	
Fluorobenzene (PID)		91	75-125	



Client Sample ID: LCS Lab ID#: 0703294-08B

File Name:	6031418	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/14/07 05:06 PM

Compound		%Recovery
TPH (Gasoline Range)		112
Container Type: NA - Not Applicable		
		Method
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	99	75-150



Summary of Detected Compounds MODIFIED EPA METHOD TO-3 GC/PID/FID

Client Sample ID: SV-6

Lab ID#: 0703262-01A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	(uG/L)
Benzene	0.0022	0.0072	0.56 M	1.8 M
Toluene	0.0022	0.0084	0.035 M	0.13 M
Ethyl Benzene	0.0022	0.0097	0.020 M	0.085 M
m.p-Xvlene	0.0022	0.0097	0.030 M	0.13 M
o-Xylene	0.0022	0.0097	0.017	0.073
TPH (Gasoline Range)	0.056	0.23	28	110

Client Sample ID: SV-6 Duplicate

Lab ID#: 0703262-01AA

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0022	0.0072	0.55 M	1.8 M
Toluene	0.0022	0.0084	0.036 M	0.14 M
Ethyl Benzene	0.0022	0.0097	0.020 M	0.087 M
m.p-Xylene	0.0022	0.0097	0.028 M	0.12 M
o-Xylene	0.0022	0.0097	0.016	0.072
TPH (Gasoline Range)	0.056	0.23	28	110

WORK ORDER #: 0703262

Work Order Summary

CLIENT:

Mr. Robert Kitay

Aqua Science Engineering

208 West El Pintado Danville, CA 95426 DILL IV.

BILL TO: Mr. Robert Kitay

Aqua Science Engineering

208 West El Pintado Danville, CA 95426

PHONE:

925-820-9391

P.O. #

FAX:

925-837-4853

PROJECT#

DATE RECEIVED:

03/12/2007

CONTACT:

Sarah Nguyen

2808 Lim

DATE COMPLETED:

03/23/2007

			RECEIPT
FRACTION #	<u>NAME</u>	<u>TEST</u>	VAC./PRES.
01A	SV-6	Modified TO-3	3.0 "Hg
01AA	SV-6 Duplicate	Modified TO-3	3.0 "Hg
02A	Lab Blank	Modified TO-3	NA
03A	LCS	Modified TO-3	NA
03B	LCS	Modified TO-3	NA

CERTIFIED DV.	Suday & Bumare	DATE:	03/23/07	
CERTIFIED BY:		Ditte.		

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE Modified TO-3 Aqua Science Engineering Workorder# 0703262

One 1 Liter Summa Canister sample was received on March 12, 2007. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with photo ionization and flame ionization detection. The method involves concentrating up to 200 mL of sample. The concentrated aliquot is then dry purged to remove water vapor prior to entering the chromatographic system. The TPH (Gasoline Range) results are calculated using the response factor of Gasoline. A molecular weight of 100 is used to convert the TPH (Gasoline Range) ppmv result to ug/L. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

Requirement	TO-3	ATL Modifications
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch = 20 samples</td
Initial Calibration Calculation	4-point calibration using a linear regression model	5-point calibration using average Response Factor
Initial Calibration Frequency	Weekly	When daily calibration standard recovery is outside 75 - 125 %, or upon significant changes to procedure or instrumentation
Moisture Control	Nafion system	Sorbent system
Minimum Detection Limit (MDL)	Calculated using the equation DL = A+3.3S, where A is intercept of calibration line and S is the standard deviation of at least 3 reps of low level standard	40 CFR Pt. 136 App. B
Preparation of Standards	Levels achieved through dilution of gas mixture	Levels achieved through loading various volumes of the gas mixture

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The recovery of surrogate Fluorobenzene in samples SV-6 and SV-6 Duplicate was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

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 MODIFIED EPA METHOD TO-3 GC/PID/FID

Client Sample ID: SV-6

Lab ID#: 0703262-01A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0022	0.0072	0.56 M	1.8 M
Toluene	0.0022	0.0084	0.035 M	0.13 M
Ethyl Benzene	0.0022	0.0097	0.020 M	0.085 M
m.p-Xylene	0.0022	0.0097	0.030 M	0.13 M
o-Xylene	0.0022	0.0097	0.017	0.073
TPH (Gasoline Range)	0.056	0.23	28	110

Client Sample ID: SV-6 Duplicate

Lab ID#: 0703262-01AA

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	(uG/L)
Benzene	0.0022	0.0072	0.55 M	1.8 M
Toluene	0.0022	0.0084	0.036 M	0.14 M
Ethyl Benzene	0.0022	0.0097	0.020 M	0.087 M
m,p-Xylene	0.0022	0.0097	0.028 M	0. 12 M
o-Xylene	0.0022	0.0097	0.016	0.072
TPH (Gasoline Range)	0.056	0.23	28	110



Client Sample ID: SV-6 Lab ID#: 0703262-01A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	6031508 2.24		Date of Collection: 3/8/07 Date of Analysis: 3/15/07 12:52 PM	
Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0022	0.0072	0.56 M	1.8 M
Toluene	0.0022	0.0084	0.035 M	0.13 M
Ethyl Benzene	0.0022	0.0097	0.020 M	0.085 M
m,p-Xylene	0.0022	0.0097	0.030 M	0.13 M
o-Xylene	0.0022	0.0097	0.017	0.073
TPH (Gasoline Range)	0.056	0.23	28	110

M = Reported value may be biased due to apparent matrix interferences.

Q = Exceeds Quality Control limits, due to matrix effects. Matrix effects confirmed by re-analysis.

Container Type. I Liter Summa Camster		Method
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	175 Q	75-150
Fluorobenzene (PID)	152 Q	75-125



Client Sample ID: SV-6 Duplicate

Lab ID#: 0703262-01AA

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	6031509 Date of Collection: 3/8 2.24 Date of Analysis: 3/15			
Compound	Rot. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0022	0.0072	· 0.55 M	1.8 M
Toluene	0.0022	0.0084	0.036 M	0.14 M
Ethvi Benzene	0.0022	0.0097	0.020 M	0.087 M
m.p-Xylene	0.0022	0.0097	0.028 M	0.12 M
o-Xylene	0.0022	0.0097	0.016	0.072
TPH (Gasoline Range)	0.056	0.23	28	110

M = Reported value may be biased due to apparent matrix interferences.

Q = Exceeds Quality Control limits, due to matrix effects. Matrix effects confirmed by re-analysis.

Container Type: 1 Eller Califfia Carriere.		Method
Surrogates	%Recovery	Limits
Fluorobenzene (FID)	177 Q	75-150
Fluorobenzene (PID)	154 Q	75-125



Client Sample ID: Lab Blank Lab ID#: 0703262-02A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor: Compound	6031503 1.00	Date of Collection: NA Date of Analysis: 3/15/07 09:05 AM		
	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.0010	0.0032	Not Detected	Not Detected
Toluene	0.0010	0.0038	Not Detected	Not Detected
Ethyl Benzene	0.0010	0.0043	Not Detected	Not Detected
m,p-Xylene	0.0010	0.0043	Not Detected	Not Detected
o-Xylene	0.0010	0.0043	Not Detected	Not Detected
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

Container Type: NA - Not Applicable

Container Type: TAX - Not Applicable		Method	
Surrogates	%Recovery	Limits	
Fluorobenzene (FID)	86	75-150	
Fluorobenzene (PID)	88	75-125	



Fluorobenzene (PID)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS Lab ID#: 0703262-03A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	6031510b 1.00	=	Date of Collection: NA Date of Analysis: 3/15/07 02:55 PM	
Compound			%Recovery	
Benzene			88	
Toluene			87	
Ethyl Benzene			82	
m,p-Xylene			81	
o-Xylene			80	
Container Type: NA - Not Appl	icable		Method	
Surrogates		%Recovery	Limits	

97

75-125



Fluorobenzene (FID)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS Lab ID#: 0703262-03B

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name: Dil. Factor:	6031511 1.00		Date of Collection: NA Date of Analysis: 3/15/07 03:35 PM	
Compound			%Recovery	
TPH (Gasoline Range)	•		. 96	
Container Type: NA - Not A	Applicable			
			Method	
Surrogates		%Recovery	Limits	

122

75-150