

20479



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September 10, 2008

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: REMEDIAL ACTION PLAN

SITE: Fuel Leak Case RO0000479
Lim Property
250 8th Street
Oakland, CA 94607

Dear Mr. Wickham:

Attached is Aqua Science Engineers, Inc.'s (ASE) remedial action plan (RAP) for the subject site. This RAP details a proposed dual phase extraction event in an effort to remove a large mass of free-floating hydrocarbons located on site and within 8th Street near the driveway entrance into the property.

We respectfully request your agency's approval of this RAP as soon as possible. Our client will be requesting pre-approval of the costs to complete the tasks detailed in this RAP, and your approval letter will be required by the USTCF.

Should you have any questions or comments, please feel free to contact us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

A handwritten signature in cursive script that reads "David Allen".

David Allen
Vice President, R.E.A.



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September 10, 2008

REMEDIAL ACTION PLAN
LIM PROPERTY
250 8TH STREET
OAKLAND, CALIFORNIA
(ASE JOB NO. 2808)
(RO #0000479)

for

Mr. Russell Lim
3111 Diablo Road
Lafayette, CA 94549

Submitted by:

Aqua Science Engineers
208 West El Pintado Road
Danville, CA 94526
(925) 820-9391



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1.0 INTRODUCTION

This report presents Aqua Science Engineers, Inc.'s (ASEs) remedial action plan (RAP) for remediation of free-phase hydrocarbons and dissolved hydrocarbons in the shallow groundwater at the Lim Property located at 250 8th Street in Oakland, California, Figures 1 and 2. The selected remedial technology will be Dual-Phase Extraction (DPE) using a mobile DPE unit supplied by CalClean of Tustin California.

2.0 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



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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 appears 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 in the Tables section of this report.

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 (IW-1 through IW-5) 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.



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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 (ACHCSA), 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 DPE Event

In October 2004, CalClean mobilized to the site with a truck-mounted 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



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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. Complete details of the CalClean DPE Event are within ASE's report of remediation effectiveness dated January 10, 2005.

2.14 ASE DPE System Remediation Events

On February 13, March 14, and April 19 2007, ASE performed 10-hour DPE events at the site using ASE's mobile DPE remediation system. ASE's system consists of a high-vacuum, rotron blower to extract hydrocarbon-laden vapors from the extraction well. The vapors are then treated before atmospheric discharge by four 250 pound vapor-phase activated carbon vessels, plumbed in parallel. Groundwater is removed from the extraction well simultaneously, and the hydrocarbon-laden groundwater is stored within a temporary tank on site for later off-site disposal.

During the three 10-hour DPE events, monitoring well MW-3 and injection well IW-5 were used as the extraction points. Based on analytical results of air bag samples collected from the influent vapor stream during the three events, approximately 19 gallons of gasoline were removed from the vadose zone at the site. 4,000 gallons of groundwater and free-floating product was removed and later offhauled from the site for disposal at a local recycling facility.

2.15 February and March 2007 Soil, Vapor & Groundwater Assessment Activities

During February and March 2007, ASE performed a soil and groundwater assessment consisting of seven (7) Geoprobe soil borings (SB-1 through SB-7) for the collection of soil and groundwater samples on and off site (Figure 2). One of the Geoprobe borings was drilled to a depth of 60-feet bgs to determine the vertical extent of hydrocarbon pollution in groundwater on site. During March 2007, ASE performed a vadose zone vapor sampling assessment consisting of seven temporary vapor points (SV-1 through SV-7) for the collection of vapor samples on and off site (Figure 2). Based on the analysis of soil, groundwater and vapor samples, it was concluded that (a) the likelihood of deep groundwater pollution on site was very low due to the decreasing trend of concentrations of discrete depth samples, (b) the four on-site Geoprobe borings contained hydrocarbon concentrations in groundwater above ESLs for several compounds, but none of the off-site Geoprobes contained pollution that appeared to be the result of on-site activities, and (c) six of the seven vapor samples collected on and off site contained elevated concentrations of TPH-G and benzene.

Based on the findings, ASE installed a deep zone monitoring well on site, performed additional vapor sampling activities upgradient to the site, and also performed an indoor air assessment of the on-site and off-site buildings.



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2.16 January, February and March 2008 Soil, Groundwater, Soil Vapor and Indoor Air Assessments

In January 2008, ASE installed monitoring well MW-8 to a total depth of 49-feet bgs. This well is screened between 44-feet bgs and 49-feet bgs to assess deep groundwater pollution beneath the location of the former USTs. Groundwater from this well indicates that deep hydrocarbon pollution does not exist below the shallow groundwater at the site.

In January 2008, an indoor air assessment was performed inside the on-site building as well as several buildings across 8th Street and adjacent to the site. An ambient air control sample was also collected to be used as a baseline to compare the indoor air results. Based on the findings of the indoor air study for the off-site buildings, it was concluded that it was unlikely that vapor intrusion from subsurface soils is contributing significantly to occupant dose in any of the off-site structures. As for the on-site structure, it was concluded that the vehicle maintenance operations that occur within the building were likely contributing to the elevated indoor air hydrocarbon concentrations, not from subsurface conditions.

In February 2008, ASE drilled Geoprobe soil borings SB-8, SB-9 and SB-10 on the upgradient property to the north, 817 Alice Street (Figure 2). ASE also drilled temporary soil vapor points SV-8, SV-9 and SV-10 adjacent to the Geoprobe borings (Figure 2). The only hydrocarbon detected in soil from these borings was 1.0 ppm TPH-D in SB-8. SB-8 and SB-9 contained TPH-D in groundwater at 150 ppb and 650 ppb, respectively. Very low concentrations of TPH-G and BTEX were identified in the vapor samples collected from vapor points SV-8, SV-9 and SV-10. However, none of the concentrations exceeded residential or commercial ESLs.

The report detailing the 2008 assessment activities, dated March 20, 2008, concluded that the horizontal and vertical extent of hydrocarbons has been defined in soil and groundwater in every direction. ASE recommended no further assessment activities. Based on the continued existence of free-floating product at the site, ASE recommended dual phase extraction as the preferred method to remove the free-floating product.

2.17 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 the Tables section of this report as Tables One through Three.

2.18 Current Status of Site

Based on recent quarterly groundwater monitoring events, free-product has returned to monitoring well MW-3. The thickness has typically been measured at approximately 0.5 feet. Complete remediation of the affected soil and groundwater on site and downgradient of the site needs to be performed. The first task is to remove the mass of free-floating hydrocarbons that exist near the driveway entry to the site on 8th Street. ASE's general recommendation is to install



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three additional extraction wells on-site, and then perform a 30-day DPE event using CalClean personnel and their equipment. The scope of work for this remedial effort is detailed below.

3.0 SCOPE OF WORK (SOW) FOR EXTRACTION WELL INSTALLATION

The following is ASE's scope of work for the installation of three extraction wells to be used for DPE:

- 1) Obtain a drilling permit from the Alameda County Public Works Agency (ACPWA).
- 2) Contract with a subsurface utility locating service to clear drilling locations of underground utility lines.
- 3) Using a hollow-stem auger drill rig, drill three soil borings to a depth of 25-feet bgs and construct extraction wells in the borings. Collect soil samples as drilling progresses.
- 4) Develop the new extraction wells using surge block agitation and pump and/or bailer evacuation.
- 5) Measure free-floating product thickness or collect water samples from the three new extraction wells.
- 6) Analyze soil and groundwater samples collected from each boring described in tasks 3 and 5 at a CAL-DHS certified analytical laboratory for TPH-D by EPA Method 8015 and TPH-G, BTEX, and fuel oxygenates by EPA Method 8260B.
- 7) Survey the top of casing elevation of each new well relative to the mean sea level (msl).

4.0 DETAILS OF THE SOW FOR EXTRACTION WELL INSTALLATION

Details of the assessment are presented below.

TASK 1 - OBTAIN A DRILLING PERMIT FROM THE ALAMEDA COUNTY PUBLIC WORKS AGENCY

Prior to drilling, ASE will obtain a drilling permit from the ACPWA.

TASK 2 - CONTRACT WITH AN UNDERGROUND UTILITY LINE LOCATING SERVICE TO ACCURATELY LOCATE UNDERGROUND UTILITY LINES IN STREET AREAS

ASE will contact Underground Service Alert (USA) at least 48 hours prior to drilling. ASE will also contract with a private underground utility locating service to pinpoint the location of utility lines in the drilling locations.



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TASK 3 - INSTALL THREE EXTRACTION WELLS

ASE will drill three borings at the site using a drill rig equipped with 8-inch diameter hollow-stem augers (Figure 3) for the installation of 2-inch diameter extraction wells. This drilling will be directed by a qualified ASE geologist.

Undisturbed soil samples will be collected at least every 5-feet, at lithographic changes, and from just above the water table for subsurface hydrogeologic description and possible chemical analysis. The ASE geologist will describe the samples according to the Unified Soil Classification System (USCS). The samples will be collected in brass or stainless steel tubes using a split-barrel drive sampler advanced by repeated blows from a 140-lb. hammer dropped 18-inches. Samples to be retained for analysis will be immediately removed from the sampler, trimmed, sealed with Teflon tape and plastic caps, 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 will be placed into an ice chest containing wet ice for delivery under chain of custody to a CAL-DHS certified analytical laboratory.

Soil from the remaining tubes not sealed for analysis will be removed for hydrogeologic description and will be screened for volatile compounds with a photoionization detector (PID). The soil will be screened by emptying soil from one of the tubes into a plastic bag. The bag will be sealed and placed in the sun for approximately 10 minutes. After the hydrocarbons have been allowed to volatilize, the PID will measure the vapor through a small hole, punched in the bag. These PID readings will be used as a screening tool only since these procedures are not as rigorous as those used in an analytical laboratory.

All sampling equipment will be cleaned in buckets with brushes and an Alconox solution, then rinsed twice with tap water. Rinsates will be contained on-site in 55-gallon steel drums and stored on-site until off-site disposal can be arranged.

ASE will complete the borings as extraction wells EW-1, EW-2, and EW-3. The extraction wells will be constructed with 2-inch diameter, flush-threaded, schedule 40, 0.010-inch factory slotted PVC well screen and blank casing. The well casing in each well will be lowered through the augers and #2/12 Monterey sand will be placed in the annular space between the well casing and the borehole to approximately 2-feet above the screened interval. Approximately 2-feet of bentonite pellets will be placed on top of the sand pack and hydrated with water. This bentonite layer will prevent the cement sanitary seal from infiltrating into the sand pack. Cement mixed with 3 to 5 percent bentonite powder by volume will be used to fill the annular space between the bentonite layer and the surface to prevent surface water from infiltrating into the well. The well head will be protected by a locking well plug and an at-grade, traffic-rated well box (See Figure 4 - Typical Extraction Well).

The wells will be screened to monitor the first water-bearing zone encountered. ASE anticipates that the wells will be screened from 5-feet above the water table and 7 to 8-feet below the water table.



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TASK 4 - DEVELOP THE EXTRACTION WELLS

The new extraction wells will be developed after waiting at least 72 hours after well construction. The wells will be developed using at least two episodes of surge block agitation and bailer and/or pump evacuation. At least ten well casing volumes of water will be removed during the development, and development will continue until the water appears to be reasonably clear. The well development purge water will be stored temporarily on-site in sealed and labeled 55-gallon steel drums until off-site disposal can be arranged.

TASK 5 - MEASURE FREE-FLOATING PRODUCT THICKNESS OR SAMPLE THE EXTRACTION WELLS

After waiting 72 hours after the development of the new wells, the thickness of any free-floating hydrocarbons will be measured with an oil/water interface probe and an acrylic bailer lowered slowly to the groundwater surface and filled approximately half full for direct observation. If free-product is encountered, then sampling activities will not be completed. If no free-floating product is observed, then sampling activities will occur as described below.

ASE will measure the depth to groundwater in all three new wells. Prior to sampling, each new extraction well will be purged of at least three well casing volumes of groundwater. The temperature, pH and electrical conductivity of evacuated water will be monitored during the well purging, and purging will continue beyond four well casing volumes if these parameters have not stabilized. Groundwater samples will be collected from each well using disposable polyethylene bailers. Groundwater samples will be decanted from the bailers into 40-ml glass volatile organic analysis (VOA) vials, preserved with hydrochloric acid, and sealed without headspace. The samples will then be 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 will be placed into an ice chest with wet ice for transport to the analytical laboratory under chain of custody. Purged groundwater will be stored temporarily on-site in sealed and labeled 55-gallon steel drums until off-site disposal can be arranged.

TASK 6 - ANALYZE THE SOIL AND GROUNDWATER SAMPLES

Soil samples will be collected at 5-foot intervals. At a minimum, the soil sample collected from the capillary zone will be analyzed in all borings drilled. Additional samples may be analyzed if there is evidence of soil contamination based on odors, PID readings, or staining. Analyses for all soil samples will include TPH-D by modified EPA Method 3510/8015M, and TPH-G, BTEX, and five oxygenates by EPA Method 8260B.

All groundwater samples (if collected) will be analyzed by a CAL-DHS certified analytical laboratory for TPH-D by modified EPA Method 3510/8015M, and TPH-G, BTEX, and five oxygenates by EPA Method 8260B.



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TASK 7 - SURVEY THE TOP OF CASING ELEVATION OF EACH WELL

ASE will contract with a California licensed surveyor to survey the top of casing elevation of each extraction well relative to mean sea level (msl). These elevations will be used with the depth to groundwater measurements to determine the groundwater flow direction and gradient beneath the site. The longitude and latitude of each well location will also be surveyed to Geotracker standards.

5.0 SCOPE OF WORK FOR 30-DAY DUAL PHASE EXTRACTION EVENT

The scope of work for this phase of the project is to perform a 30-day DPE remediation event at the site. CalClean's high vacuum DPE (HVDPE) system will be plumbed to several monitoring, extraction and injection wells that contain free-floating hydrocarbons and/or extremely high concentrations of petroleum hydrocarbons.

ASE's basic scope of work is as follows:

- 1) Secure a Special Discharge Permit from EBMUD to discharge the treated groundwater to the on-site sanitary sewer.
- 2) Prepare a site specific health and safety plan.
- 3) Mobilize to the site with CalClean personnel to perform the HVDPE event. Perform pre DPE event start-up operating procedures tests. Measure the depth to water, and depth to free-product if present, in all five injection wells (IW-1 through IW-5), the three new extraction wells (EW-1 through EW-3), and monitoring well MW-3 (Figure 3).
- 4) Connect the HVDPE equipment to the wells detailed in number 3 above that have the greatest thickness of product. The HVDPE equipment is capable of extracting from three wells at a time. Begin 30-day remediation event.
- 5) Every 5 days, relocate the HVDPE suction line to three different wells. Continue this process until extracted vapor concentrations are no longer elevated (using a PID).
- 6) Extract free-product, groundwater and vapors from the selected extraction wells.
- 7) Destroy the free-product and petroleum-hydrocarbon laden vapors with the truck-mounted thermal oxidizer, Figure 5.
- 8) Treat the hydrocarbon-laden groundwater with the activated carbon water treatment system, Figure 5.
- 9) Discharge the treated groundwater to the EBMUD sanitary sewer.



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- 10) Collect groundwater and vapor samples from the influent stream at the start, end and at key points during the HVDPE event.
- 11) Analyze water and vapor samples at a CAL DHS certified analytical laboratory for TPH-G, BTEX and MTBE by EPA Method 8260B. Analyze the water samples also for TPH-D by EPA Method 8015M.
- 12) Collect data to determine a radius of influence of the HVDPE system on several outlying wells at the start, end, and at key points during the HVDPE event.
- 13) Prepare a report detailing the performance of the DPE event and make recommendations for future remedial activities at the site.

6.0 DETAILS OF THE SOW FOR THE 30-DAY DPE REMEDIATION EVENT

Selected details regarding the DPE remediation event are further explained below:

TASK 1- PERMITTING

ASE has secured a Special Discharge Permit from EBMUD to discharge the treated groundwater to the on-site sanitary sewer during our 2004 DPE event. ASE will apply for reinstatement of this permit. CalClean is responsible for maintaining their permit with the Bay Area Air Quality Management District (BAAQMD) for operation of the thermal oxidizer used to treat extracted soil vapor during the DPE remediation event.

TASK 2- HEALTH AND SAFETY PLAN

Prior to conducting all field activities, a Health and Safety Plan will be prepared outlining all field activities to be performed at the site during the HVDPE activities. A copy of the Health and Safety Plan will be available onsite during all field activities.

TASK 3- PERFORMANCE OF DPE REMEDIATION, START-UP PROCEDURE

During the 30-day DPE event, ASE and CalClean personnel will complete the following tasks:

Pre-Test Activities

- Measure the distance from the extraction wells (Figure 3) to the selected observation wells (the remaining monitoring wells at the site) and record the measurements in Table A.
- Gauge the depth to water in the extraction and observation wells.



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- Install well seals in each observation well to prevent atmospheric short-circuiting during the test. Well seals will consist of a labcock sample port equipped with a butterfly valve. The well seal will be installed and an air compressor attached to the sample port with a hose. The well casing will be pressurized using the air compressor to approximately 25 pounds per square inch (psi). Using the pressure gauge attached to the well seal, the technician will observe the time and pressure drop and record the information. Well seals will be pressure tested before and after completion of the pilot test to ensure proper transmitting of airflow and to check for changes in seal integrity.
- Perform a visual observation of the pavement surface in the vicinity of the extraction and observation wells and identify any significant cracks or unsealed penetrations and record observations. Visually check the well head conditions and well seals for any apparent lack of integrity and record observations. In addition, the technician will record pertinent local weather data that could account for possible changes in soil gas pressure in the vadose zone.
- Determine the sequence of monitoring for observation wells in the well field.
- The DPE drop tube will be measured and marked with permanent ink at 5, 10, 15, 20, and 25 feet intervals. Note and record the starting depth of the drop tube (which will be 3-feet below the starting water level) on Field Data Sheets.
- Prior to startup, place the well seals on the observation wells, close the labcock valves, and measure the observation wellhead vacuum (in H₂O) and repeat the measurements every 15 minutes during the step test.
- Turn on the vacuum pump at low vacuum (e.g., 1 to 5 inches Hg) and observe and record the airflow rates (scfm) at the extraction wellhead, well casing seal, and DPE manifold using a hot wire anemometer or other flow instruments. Record time on Field Data Sheets.
- Collect an initial influent vapor sample from the extraction well. The influent vapor samples will be submitted to a CAL DHS laboratory under chain-of-custody documentation for analysis of TPH-G, BTEX, and fuel oxygenates by EPA Method 8260B.
- Measure influent vapor concentration (parts per million by volume [ppmv]) using a PID or equivalent meter every 15 minutes during the step test and record the time on the Field Data Sheets.
- Measure groundwater extraction rates by measuring the rise of groundwater in the sight glass on the knockout tank DPE unit.



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Repeat the procedure above for mid-range vacuum (e.g., 5 to 7 inches Hg) and again at maximum vacuum (e.g., 10 inches Hg or higher) for the time intervals noted above. During the DPE remediation event, the drop tube will be raised to the starting depth (which will be 3-feet below the starting water level) at the beginning of each step. Dilution adjustments may not be made during the step test unless specified by the site engineer. Using the data from the initial start-up procedure detailed above, mass removal activities will commence.

TASKS 4 to 9- EXTENDED PERIOD DPE INTERIM REMEDIATION EVENT (30 DAYS TOTAL)

- Turn on vacuum pump at optimum vacuum. Observe and record vapor flow rates (scfm) using a hot wire anemometer or other flow meter at the extraction wellheads and manifold. Repeat flow and vacuum measurements every 30 minutes and record information on Field Data Sheets.
- Measure influent vapor concentration in ppmv using a PID every 30 minutes.
- Continue to optimize operating parameters as the DPE interim remediation event proceeds. This task will occur continuously until the event is completed. Field personnel will work in 12-hour shifts so that the equipment is manned at all times.
- Change extraction wells as needed based on PID field measurements.
- Collect influent vapor sample using Tedlar bag at the conclusion of the DPE remediation event.
- Continuously treat extracted hydrocarbon vapors with the truck-mounted thermal oxidizer unit.
- Continuously treat extracted groundwater with the truck-mounted activated carbon units. Sample groundwater in batches to determine its suitability for discharge down the EBMUD sanitary sewer.
- Should a significant volume of free-product form on the DPE system temporary holding tank, the product may be decanted off the surface of the groundwater and temporarily stored within a drum for future offsite disposal as hazardous waste. ASE has a contract with Clearwater Environmental for handling of such wastes.
- At the conclusion of the event, well seals are to be pressure tested again to check for changes in seal integrity. Compare results to pre-test seal pressures.

ASE believes the 30 days of remediation tasks will be sufficient for remediation of free-product impacted soils and groundwater at the site. The emphasis of the event will be centered on extraction from monitoring well MW-3 and injection well IW-5 due to their historical volume of



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free-product. DPE is also expected to occur on all of the newly installed extraction wells on site, as well as any of the injection wells that show a measureable amount of free product. The goal of this DPE remediation event is to remediate the hydrocarbons trapped in soil and groundwater beneath the site near the driveway on 8th Street. The event will conclude early only if influent vapor concentrations are measured at insignificant levels for an extended period of time (24-48 hours) in all of the extraction wells.

TASKS 10 & 11- SAMPLE COLLECTION AND ANALYSIS

Field measurements of influent vapor concentration in ppmv will be obtained periodically using a PID or equivalent analyzer throughout the DPE pilot test and the DPE interim remediation event and record the data on the Field Data Sheet. This tool will be used to determine at which point in time the DPE equipment should be switched from one extraction well to the next.

Soil vapor samples collected during the DPE remediation event will be collected in laboratory supplied Tedlar bags. Water samples will be collected in new, unused 40-ml VOA vials and 1-liter amber bottles. All samples will be labeled with the sample ID and location, date and time, and name of sampler. The vapor samples will be stored at ambient temperature in a cooler that protects the samples from direct sunlight. The water samples will be stored with a cooler containing wet ice. The samples will be shipped to the laboratory under chain-of-custody documentation immediately and analyzed on a standard turn-around-time. Selected vapor and water samples will be analyzed by a state-certified laboratory for the presence of TPH-G, BTEX and MTBE by EPA Method 8260B. The water samples will also be analyzed for TPH-D by EPA Method 8015.

TASKS 12 & 13- DATA ANALYSIS AND REPORT PREPARATION

Field data collected during the DPE remediation event will include applied vacuum, air-flow rates, soil pressures, offgas moisture levels and amount of moisture, and effluent contaminant concentrations.

The tabulated data collected during the DPE remediation event will be used to generate the following plots/diagrams:

- Soil vapor cumulative removal rate versus time;
- Influent vapor concentrations versus time;
- System flow diagram and description of system used for the DPE pilot test and the DPE interim remediation event
- applied vacuum and flow rate data versus time; and
- effluent vapor concentration data versus time.

Following completion of the DPE remediation event and data analysis, ASE will prepare a Remediation Effectiveness report. The report will document the DPE remediation event activities and provide conclusions and recommendations for further remedial activities or monitoring, whichever is determined to be appropriate.



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7.0 SCHEDULE OF ACTIVITIES

ASE has begun permitting since the receipt of the approval letter from Alameda County Health Care Services Agency. Upon receiving the permits, and approval of this RAP, ASE will implement this RAP immediately.

ASE would like to thank you in advance for your assistance and prompt attention to this matter. Please feel free to call us if you have any questions or comments.

Sincerely,

Aqua Science Engineers, Inc.

David Allen, R.E.A.
Vice President



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



cc: Responsible Party Rep., Mr. Russell Lim, 3111 Diablo Road, Lafayette, CA 94549

Mr. Jerry Wickham, ACHCSA

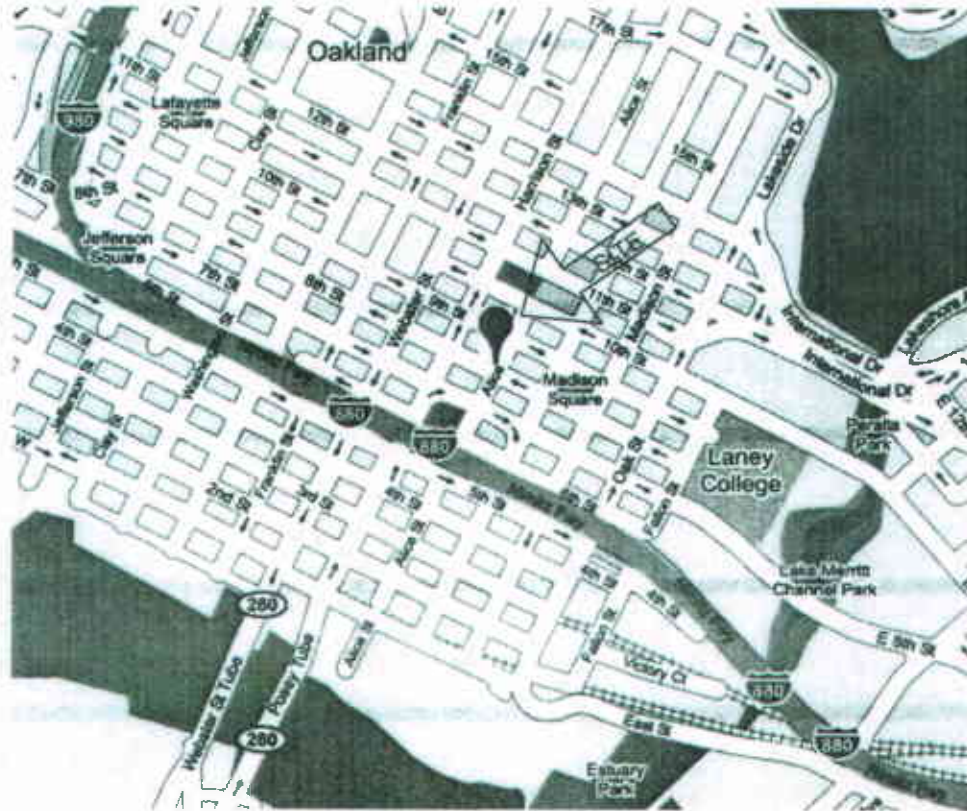


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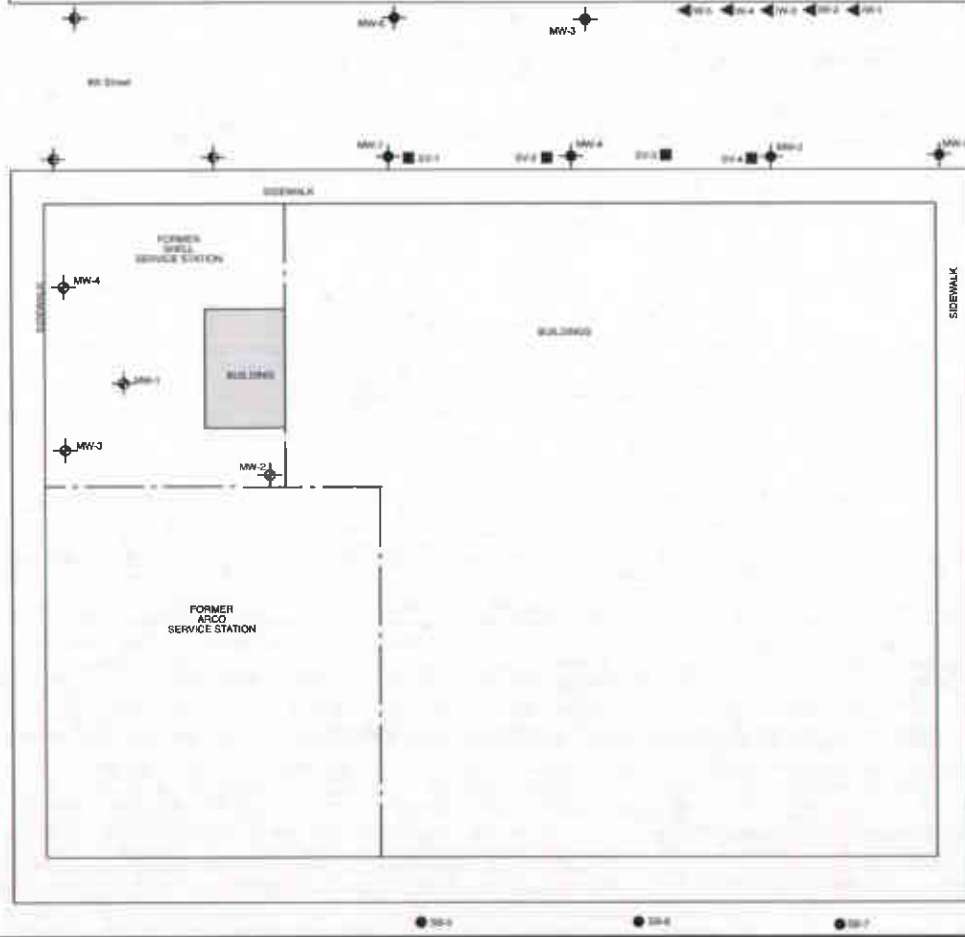
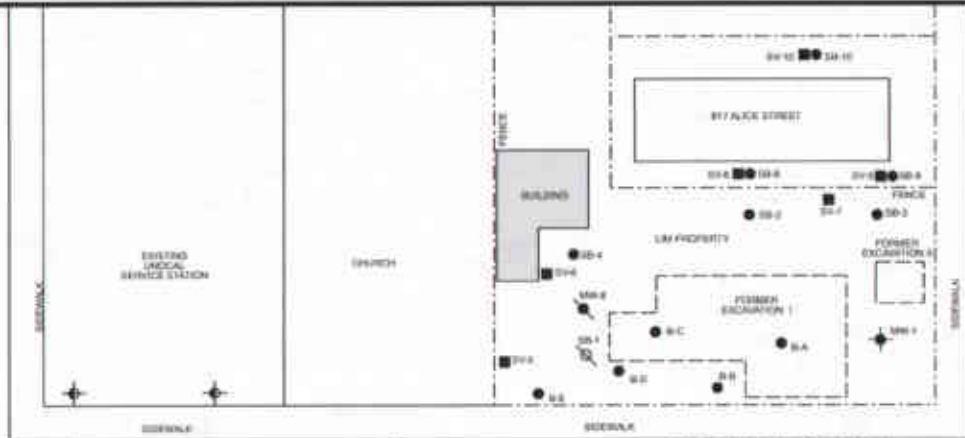
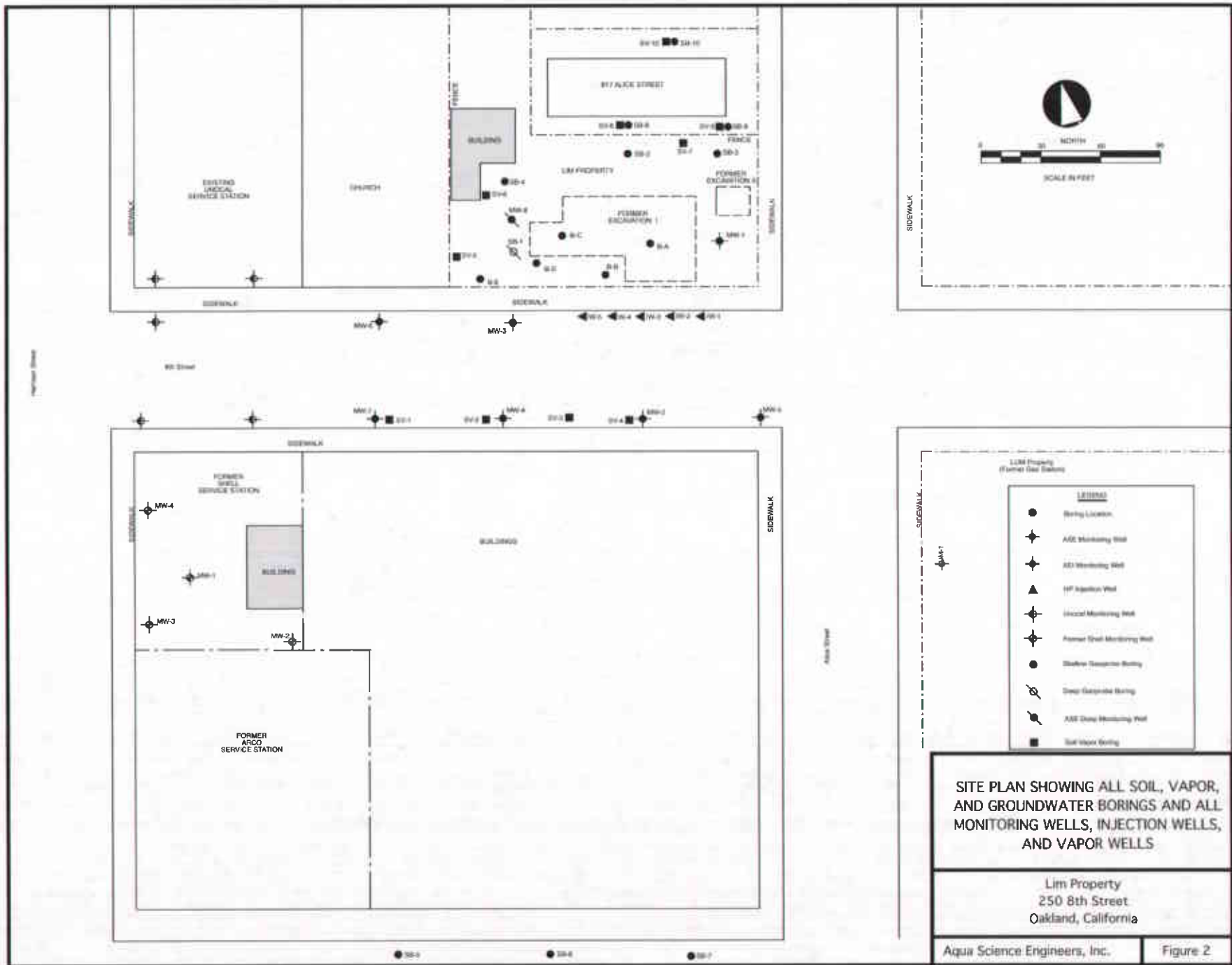
FIGURES

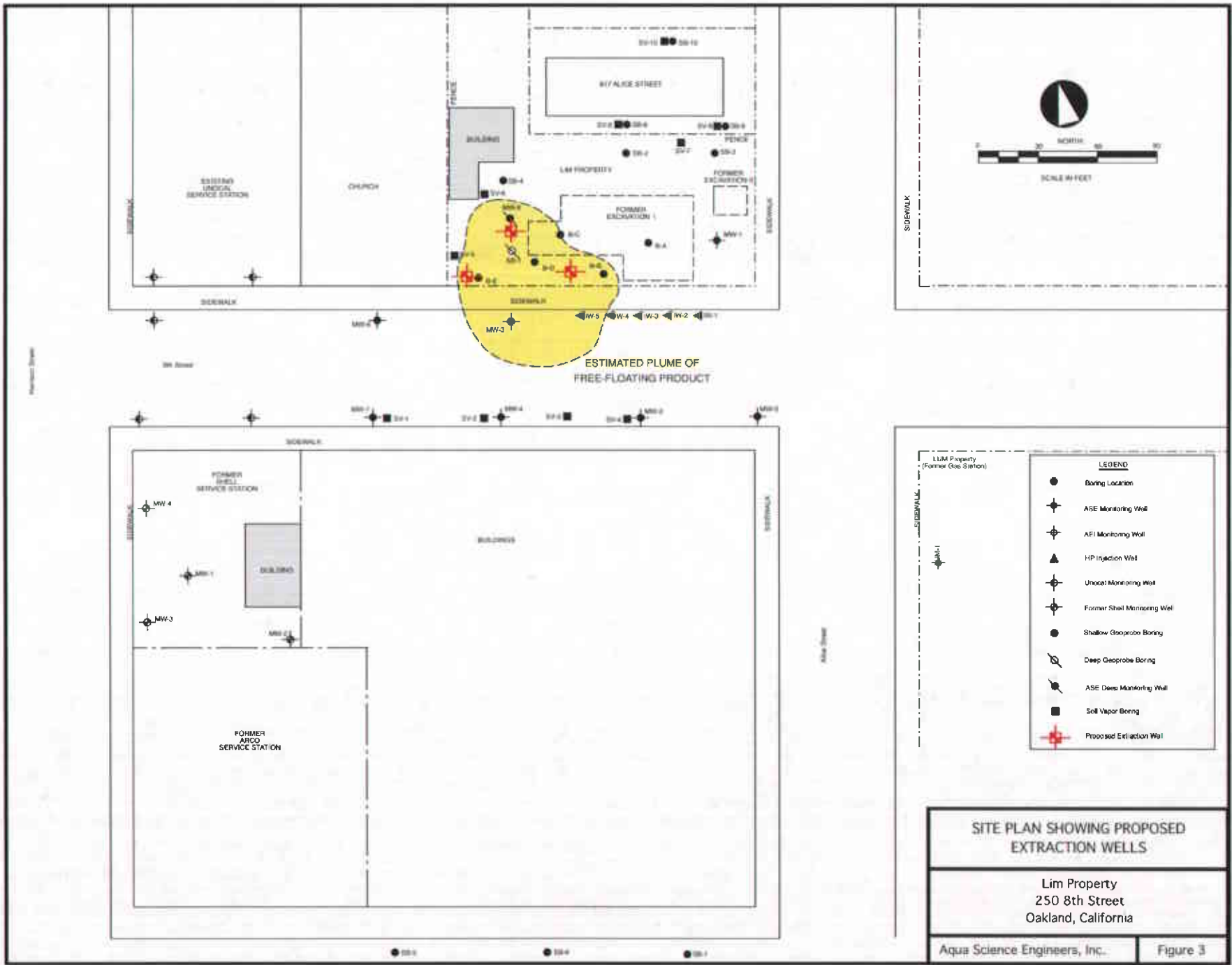


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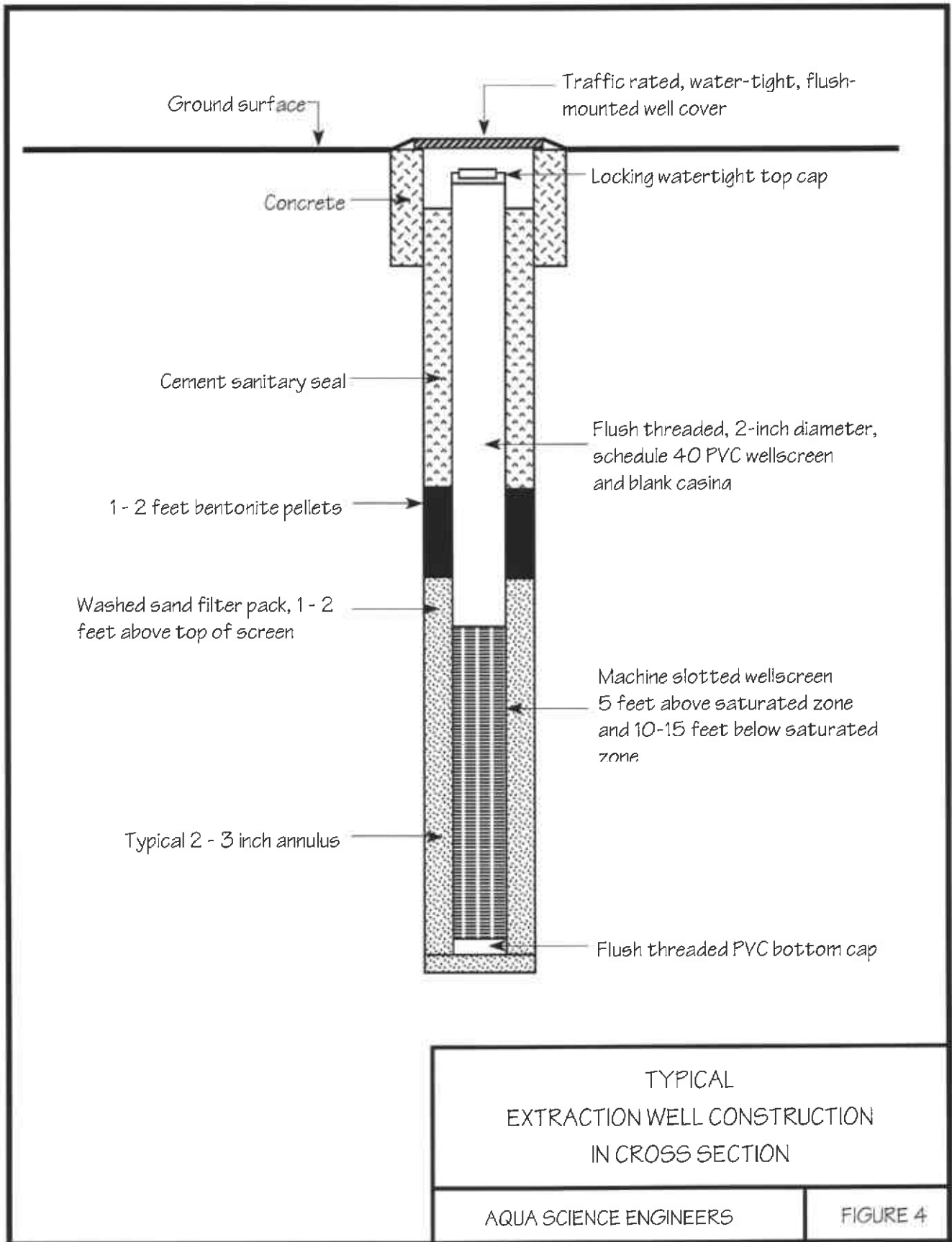
LOCATION MAP	
LIM PROPERTY 250 8 TH STREET OAKLAND, CALIFORNIA	
AQUA SCIENCE ENGINEERS	FIGURE 1

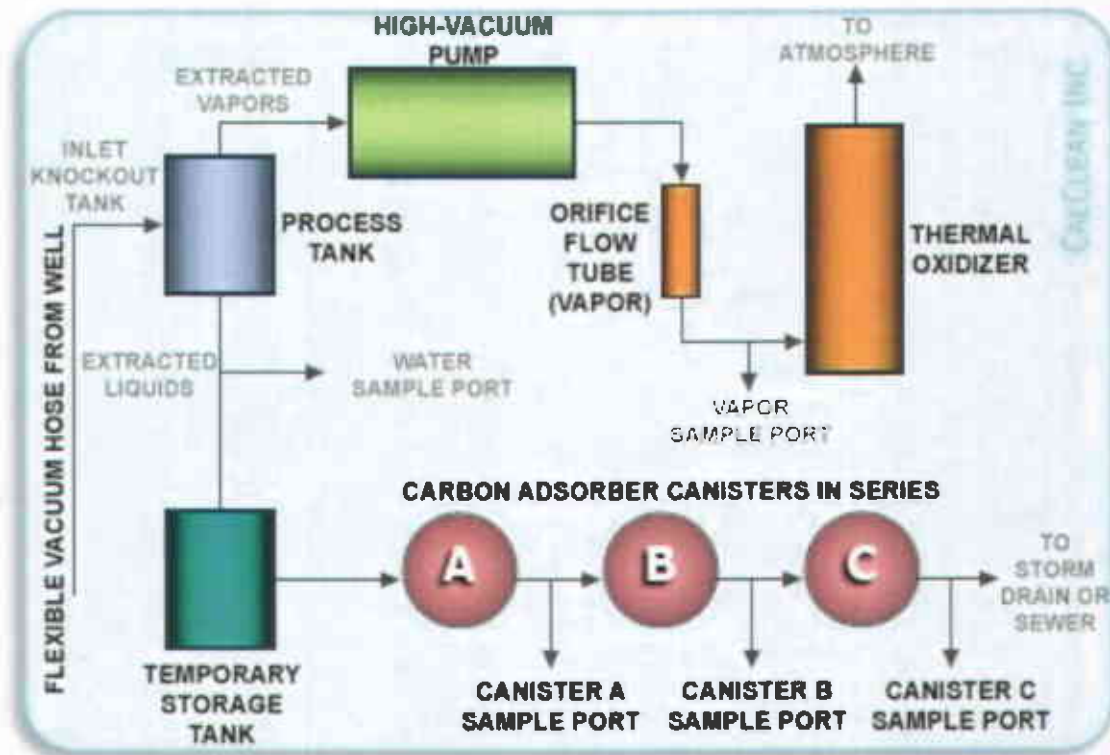




SITE PLAN SHOWING PROPOSED EXTRACTION WELLS

Lim Property
250 8th Street
Oakland, California





CALCLEAN
 DUAL PHASE EXTRACTION SYSTEM
 FLOW DIAGRAM

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FIGURE 5



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TABLES

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

Well ID.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (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		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		
05/02/07	16.92		12.80		
08/09/07	17.58		12.14		
12/06/07	18.60		11.12		
02/26/08	17.13		12.59		
05/30/08	18.17		11.55		

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

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
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	
	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		
05/02/07	16.12		12.07		
08/09/07	16.85		11.34		
12/06/07	17.95		10.24		
02/28/08	16.15		12.04		
05/30/08	17.33		10.86		

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

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
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		16.95	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	1.17	14.48*
	03/15/06		12.65	2.41	15.49*
	06/28/06		13.55	2.61	16.16*
	08/31/06		14.85	2.20	15.49*
	11/21/06		16.05	1.10	13.41*
	02/12/07		15.96	0.35	12.90*
	05/02/07		15.11	0.09	13.54*
	08/09/07		15.83	0.09	12.82*
12/08/07		18.10	0.50	10.88*	
02/26/08		16.47	0.22	12.29*	
05/30/08			17.90	0.70	11.24*

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

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)	
MW-4	01/12/00	23.71	17.24		6.47	
	04/24/00		16.16		7.53	
	07/20/00		16.16		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		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		13.41
	03/25/03			15.53		13.08
	06/23/03			15.35		13.26
	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		
	05/02/07	16.51		12.10		
	08/09/07	17.17		11.44		
	12/06/07	18.08		10.53		
02/26/08	16.57		12.04			
05/30/08	17.66		10.95			

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

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (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		15.16		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	
05/02/07	16.21		12.19			
08/09/07	16.97		11.43			
12/06/07	18.35		10.05			
02/26/08	16.35		12.05			
05/30/08	17.62		10.78			
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 MEASURED - SOUNDER MALFUNCTION			
	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	
05/02/07	16.57		12.63			
08/09/07	17.19		12.01			
12/06/07	17.95		11.25			
02/26/08	16.66		12.54			
05/30/08	17.64		11.56			

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

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-7	06/11/02	28.95	15.19		13.76
	09/17/02		15.73		13.22
	12/18/02	NOT MEASURED - CAR 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
	04/23/05		14.15		14.30
	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
05/02/07		16.93		12.02	
08/09/07		17.56		11.39	
12/06/07		18.32		10.63	
02/26/08		16.93		12.02	
05/30/08		17.97		10.98	
MW-8	02/26/08	30.14	21.50		8.64
	05/30/08		22.52		7.62

Notes:

* = Adjusted for the presence of free-floating oil by the equation: Top of Casing Elevation - Depth to Water + (0.5 x Floating Hydrocarbon Thickness) = Groundwater Elevation (Adjusted).

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

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

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
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
06/11/02	270	330	<0.5	<0.5	<0.5	<0.5	<5.0
09/17/02	320	1,700	<0.5	<0.5	<0.5	<0.5	<5.0
12/18/02	170	320	<0.5	<0.5	<0.5	<0.5	<5.0
03/25/03	320	<500	<0.5	<0.5	<0.5	<0.5	<5.0
06/23/03	240	310	<0.5	<0.5	<0.5	<0.5	<5.0
09/26/03	110	300	<0.5	<0.5	<0.5	<0.5	<0.5
12/18/03	150	340	<0.5	<0.5	<0.5	<0.5	<0.5
03/12/04	220	510	<0.5	<0.5	<0.5	<0.5	<0.5
06/17/04	250	490	<0.5	<0.5	<0.5	<0.5	<0.5
09/17/04	110	--	<0.5	<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
05/02/07	180	140	<0.50	<0.50	<0.50	<0.50	<0.50
08/09/07	130	120	<0.50	<0.50	<0.50	<0.50	<0.50
12/06/07	53	160	<0.50	<0.50	<0.50	<0.50	<0.50
02/26/08	93	<50	<0.50	<0.50	<0.50	<0.50	<0.50
05/30/08	200	240	<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

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<u>MW-2</u>							
01/30/95	88,000	800	19,000	18,000	2,400	10,000	--
04/12/95	110,000	990	21,000	28,000	2,800	14,000	--
07/14/95	120,000	5,000	20,000	25,000	3,200	15,000	--
10/17/95	190,000	4,000	15,000	26,000	4,900	23,000	--
01/12/96	32,000	2,600	10,000	8,000	1,100	4,800	< 2
07/08/96	110,000	2,500	20,000	18,000	2,500	12,000	< 500
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	7,300	< 500
01/18/01	37,000	4,600*	6,900	5,600	1,200	5,300	< 500
04/05/01	59,000	4,600*	7,100	9,800	1,600	7,600	< 500
07/17/01	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	6,800	< 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	5,800	< 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
03/15/06	33,000	< 1,500	7,700	2,600	1,400	4,200	< 15
06/28/06	96,000	< 4,000	10,000	14,000	2,900	12,000	< 15
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
05/02/07	55,000	< 3,000	6,500	5,100	2,400	8,600	< 15
08/09/07	39,000	< 3,000	6,600	2,200	1,600	4,900	< 15
12/06/07	20,000	< 1,500	7,400	510	680	1,200	< 15
02/26/08	43,000	< 4,000	8,200	940	1,400	3,700	< 15
05/30/08	31,000	< 1,000	11,000	620	1,100	2,300	< 15

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

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-3							
01/12/00	140,000	13,000*	22,000	19,000	2,400	11,000	< 500
04/24/00	240,000	700,000*	33,000/	52,000/	5,700/	28,000/	< 5,000
			35,000	87,000	18,000	84,000	
07/20/00							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
10/24/00							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
01/18/01							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
04/05/01							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
07/17/01							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
10/25/01							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
01/22/02							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
04/11/02							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
06/11/02							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
09/17/02							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
12/18/02							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
03/25/03							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
06/23/03							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
09/26/03							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
12/18/03							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
03/12/04							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
06/17/04							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
09/17/04							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
11/10/04							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
12/17/04							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
04/28/05							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
07/19/05							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
10/03/05							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
12/06/05							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
03/15/06							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
06/28/06							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
8/31/06							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
11/21/06							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
02/23/07							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
05/02/07							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
08/09/07							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
12/06/07							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
02/26/08							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS
05/30/08							NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS

TABLE TWO

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

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<u>MW-4</u>							
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	15,000	< 1,000
01/18/01	91,000	12,000	17,000/	21,000/	2,500/	13,000/	< 1,000
			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/	< 1,000
			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
12/18/03	110,000	< 2,000	8,900	19,000	2,500	12,000	< 25
03/12/04	96,000	< 4,000	6,500	18,000	2,700	12,000	< 40
06/17/04	110,000	< 4,000	10,000	20,000	2,900	13,000	< 50
09/17/04	78,000	--	9,300	15,000	2,400	11,000	< 50
11/10/04***	87,000	4,300	15,000	21,000	3,000	16,000	< 1300
12/17/04	88,000	< 3,000	8,500	16,000	2,800	12,000	< 25
04/28/05	110,000	< 3,000	7,800	14,000	2,200	10,000	< 25
07/19/05	90,000	na	10,000	13,000	2,300	10,000	< 40
10/03/05	68,000	< 800	9,400	4,000	1,800	8,700	23
12/06/05	81,000	< 1,500	8,900	7,200	2,200	9,500	< 20
03/15/06	68,000	< 3,000	7,300	14,000	2,500	10,000	< 20
06/28/06	61,000	< 3,000	8,500	4,100	2,600	11,000	< 20
08/31/06	68,000	< 2,000	9,500	9,600	2,500	12,000	< 20
11/21/06	68,000	< 1,500	9,000	5,000	2,000	9,300	< 20
02/23/07	90,000	< 2,000	11,000	11,000	2,800	12,000	< 20
05/02/07	56,000	< 2,000	7,300	6,300	2,500	11,000	< 15
08/09/07	52,000	< 2,000	7,600	2,600	2,100	8,400	< 15
12/06/07	60,000	< 2,000	13,000	2,000	2,800	11,000	< 15
02/26/08	42,000	< 2,000	3,700	2,300	2,300	8,900	< 15
05/30/08	64,000	< 3,000	9,200	5,100	3,000	12,000	< 15

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

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-5							
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
08/13/06	< 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
05/02/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	3.8
08/09/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.5
12/06/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	1.8
02/26/08	260	< 50	32	1.3	0.62	0.92	3.4
05/30/08	71	< 50	1.8	< 0.50	< 0.50	< 0.50	2.4

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

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<u>MW-6</u>							
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
05/02/07	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
08/09/07	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
12/06/07	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
02/26/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
05/30/08	<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

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total 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	1,800	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
05/02/07	26,000	< 1,000	300	2,400	1,800	6,700	< 2.5
08/09/07	13,000	< 800	250	800	1,000	3,000	< 2.5
12/06/07	9,600	< 1,000	160	850	530	2,000	< 2.5
02/26/08	14,000	< 800	190	1,000	740	3,000	< 2.5
05/30/08	9,900	< 200	160	620	590	2,300	< 2.5
<u>MW-10</u>							
02/26/08	< 50	< 50	0.51	< 0.50	< 0.50	< 0.50	< 0.50
05/30/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
ESL	100	100	1	40	30	20	5

Notes:

* = 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

= 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

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 at Sites With Contaminated Soil and Groundwater (May 2008)' document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

TABLE THREE
Groundwater Analytical Results
Oil & Grease and Volatile Organic Compounds
 All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
<u>7/8/97</u>							
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-
Tetrachloroethene (PCE)	0.9	<0.5	-	-	-	-	-
Other VOCs	<0.5 - < 3	<0.5 - < 3	-	-	-	-	-
<u>1/26/98</u>							
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-
Trichloroethene	0.7	<5.0	-	-	-	-	-
Tetrachloroethene	10	<5.0	-	-	-	-	-
1,2-Dichloroethane	<0.5	11	-	-	-	-	-
Other VOCs	<0.5 - < 50	<0.5 - < 50	-	-	-	-	-
<u>7/23/98</u>							
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-
Tetrachloroethene	4	4.6	-	-	-	-	-
1,2-Dichloroethane	<2	8.9	-	-	-	-	-
Other VOCs	< 2 - < 10	<0.5 - < 50	-	-	-	-	-
<u>1/5/99</u>							
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-
Tetrachloroethene	5.1	<50	-	-	-	-	-
Trichloroethene	0.52	<50	-	-	-	-	-
1,1,2,2-Tetrachloroethane	0.58	<50	-	-	-	-	-
Chloroform	8.2	<50	-	-	-	-	-
Other VOCs	<0.5 - < 5	<50 - < 500	-	-	-	-	-
<u>7/13/99</u>							
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-
Tetrachloroethene	1.5	0.68	-	-	-	-	-
Chloroform	4.6	<50	-	-	-	-	-
1,2-Dichloroethane	<0.50	7.7	-	-	-	-	-
Other VOCs	<0.5 - < 5	<0.5 - < 500	-	-	-	-	-
<u>1/12/00</u>							
Hydrocarbon Oil and Grease	-	<1,000	<1,000	<1,000	-	-	-
Tetrachloroethene	0.8	<1.0	<100	<50	-	-	-
Chloroform	3.2	<1.0	<100	<50	-	-	-
1,2-Dichloroethane	<0.50	8.8	120	140	-	-	-
Acetone	-	-	25,000	8,400	-	-	-
Naphthalene	-	-	550	540	-	-	-
Isopropylbenzene	-	-	120	89	-	-	-
Other VOCs	<0.5 - < 5.0	<1.0 - < 4.0	<100 - < 10,000	<50 - < 5,000	-	-	-
<u>4/24/00</u>							
Hydrocarbon Oil and Grease	-	<1,000	4,100	<1,000	-	-	-
1,2-Dichloroethane	<0.5	5.9	<1,000	<250	-	-	-
Naphthalene	-	-	3,800	590	-	-	-
Isopropylbenzene	-	-	1,200	<250	-	-	-
Other VOCs	<0.5 - < 5.0	<5.0 - < 20	1,000 - < 100,00	<250 - < 25,000	-	-	-
<u>7/20/00</u>							
Hydrocarbon Oil and Grease	-	<1,000	-	<1,000	-	-	-
Tetrachloroethene	0.59	<5.0	FREE	<200	-	-	-
Chloroform	2.1	<5.0	PRODUCT	<200	-	-	-
1,2-Dichloroethane	<0.5	6.7	---	<200	-	-	-
Acetone	-	-	NOT	<20,000	-	-	-
Naphthalene	-	-	SAMPLED	730	-	-	-
Other VOCs	<0.5 - < 20	<5.0 - < 20	-	<250 - < 20,000	-	-	-
<u>10/24/00</u>							
Hydrocarbon Oil and Grease	-	<1,000	FREE	<1,000	-	-	-
Tetrachloroethene	<0.5	<5.0	---	<250	-	-	-
Chloroform	1.0	<5.0	NOT	<250	-	-	-
Other VOCs	<0.5 - < 20	<5.0 - < 20	SAMPLED	<250 - < 25,000	-	-	-
<u>1/18/01</u>							
Hydrocarbon Oil and Grease	-	2,100	FREE	1,300	-	-	-
Tetrachloroethene	1.3	<5.0	---	<250	-	-	-
Chloroform	6.4	<5.0	NOT	<250	-	-	-
Other VOCs	<0.5 - < 20	<5.0 - < 20	SAMPLED	<250 - < 25,000	-	-	-

TABLE THREE
Groundwater Analytical Results
Oil & Grease and Volatile Organic Compounds
All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
<u>4/5/01</u>							
Hydrocarbon Oil and Grease	-	< 1.0	FREE	1,100.0	-	-	-
Tetrachloroethene	< 0.5	11	PRODUCT	< 50	-	-	-
1,2 dichloroethane	< 0.5	4.6	---	< 50	-	-	-
Trichloroethene	< 0.5	0.58	NOT	< 50	-	-	-
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	-	-	-
Tetrachloroethene	-	-	PRODUCT	-	-	-	-
1,2 dichloroethane	< 0.5	< 50	---	63.0	-	-	-
Trichloroethene	-	-	NOT	-	-	-	-
Naphthalene	-	-	---	-	-	-	-
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>10/25/01</u>							
Hydrocarbon Oil and Grease	-	< 5,000	FREE	< 5,000	-	-	-
1,2 dichloroethane	-	< 50	PRODUCT	72	-	-	-
1,2 dibromoethane	-	< 50	NOT	< 50	-	-	-
Other VOCs	-	-	SAMPLED	---	-	-	-
<u>1/22/02</u>							
Hydrocarbon Oil and Grease	-	< 5,000	FREE	< 5,000	-	-	-
1,2 dichloroethane	-	< 50	PRODUCT	< 50	-	-	-
1,2 dibromoethane	-	< 50	NOT	< 50	-	-	-
Other VOCs	-	-	SAMPLED	---	-	-	-
<u>8/11/02</u>							
Oil 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	-	-	SAMPLED	-	-	-	-
<u>6/25/02</u>							
Oil and Grease	-	-	FREE	1,400	-	-	< 1,000
1,2 dichloroethane	-	-	PRODUCT	< 100	-	-	< 20
1,2 dibromoethane	-	-	NOT	< 100	-	-	< 20
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>3/17/02</u>							
Oil and Grease	-	< 1,000	FREE	< 1,000	< 1,000	< 1,000	< 1,000
1,2 dichloroethane	-	< 20	PRODUCT	< 100	< 0.50	< 0.50	< 20
1,2 dibromoethane	-	< 20	NOT	< 100	< 0.50	< 0.50	< 20
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>12/18/02</u>							
Oil and Grease	-	1,200	FREE	< 1,000	< 1,000	< 1,000	CAR PARKED
1,2 dichloroethane	-	< 10	PRODUCT	< 50	< 0.50	< 0.50	OVER WELL
1,2 dibromoethane	-	< 10	NOT	< 50	< 0.50	< 0.50	NOT
Other VOCs	-	-	SAMPLED	-	-	-	SAMPLED
<u>2/25/03</u>							
Oil and Grease	-	< 1,000	FREE	< 1,000	< 1,000	< 1,000	< 1,000
1,2 dichloroethane	-	< 50	PRODUCT	< 100	< 0.50	< 0.50	< 2.5
1,2 dibromoethane	-	< 50	NOT	< 100	< 0.50	< 0.50	< 2.5
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>6/23/03</u>							
Oil and Grease	-	< 1,000	FREE	< 1,000	< 1,000	< 1,000	< 1,000
1,2 dichloroethane	< 0.5	< 50	PRODUCT	< 100	< 0.50	< 0.50	< 10
1,2 dibromoethane	< 0.5	< 50	NOT	< 100	< 0.50	< 0.50	< 10
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>9/25/03</u>							
Oil 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	-	-	-	-
<u>12/18/03</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 20	PRODUCT	48	< 0.50	< 0.50	< 5.0
1,2 dibromoethane	< 0.5	< 20	NOT	< 25	< 0.50	< 0.50	< 5.0
Other VOCs	-	-	SAMPLED	-	-	-	-

TABLE THREE
Groundwater Analytical Results
Oil & Grease and Volatile Organic Compounds
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Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
<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	-	-	-	-
<u>6/12/04</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 25	PRODUCT	93	< 0.50	< 0.50	< 5.0
1,2 dibromoethane	< 0.5	< 25	NOT	< 50	< 0.50	< 0.50	< 5.0
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>9/17/04</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	-	-	PRODUCT	-	-	-	-
1,2 dibromoethane	-	-	NOT	-	-	-	-
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>12/17/04</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	PRODUCT	53	< 0.50	< 0.50	< 3.0
1,2 dibromoethane	< 0.5	< 15	NOT	< 25	< 0.50	< 0.50	< 3.0
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>4/28/05</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	PRODUCT	46	< 0.50	< 0.50	< 2.5
1,2 dibromoethane	< 0.5	< 15	NOT	< 25	< 0.50	< 0.50	< 2.5
DIPE	0.67	90	SAMPLED	< 25	< 0.50	< 0.50	< 2.5
Other VOCs	< 0.5	< 15	-	< 25	< 0.50	< 0.50	< 2.5
<u>7/19/05</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	PRODUCT	73	< 0.50	< 0.50	< 2.5
1,2 dibromoethane	< 0.5	< 15	NOT	< 40	< 0.50	< 0.50	< 2.5
DIPE	0.76	< 15	SAMPLED	< 20	2.1	< 0.50	< 2.5
TBA	< 5.0	77	-	< 20	< 5.0	< 5.0	< 5.0
Other VOCs	< 0.50	< 15	-	< 20	< 0.50	< 0.50	< 2.5
<u>10/3/05</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	FREE	62	< 0.50	< 0.50	< 0.50
1,2 dibromoethane	< 0.5	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 0.50
DIPE	< 0.5	< 15	NOT	23	1.7	< 0.50	< 0.50
TBA	< 5.0	< 70	SAMPLED	< 5.0	< 5.0	< 5.0	< 5.0
Other VOCs	< 0.5	< 15	-	< 20	< 0.50	< 0.50	< 0.50
<u>3/15/06</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 0.50
1,2 dibromoethane	< 0.5	< 15	NOT	< 20	< 0.50	< 0.50	< 0.50
Other VOCs	< 0.5	< 15	SAMPLED	< 20	< 0.50	< 0.50	< 0.50
<u>6/28/06</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2 dichloroethane	< 0.5	33	FREE	20	< 0.50	< 0.50	< 0.80
1,2 dibromoethane	< 0.5	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 0.90
TBA	< 5.0	< 5.0	NOT	< 5.0	< 5.0	< 5.0	< 5.0
Other VOCs	< 0.5	< 15	SAMPLED	< 20	< 0.50	< 0.50	< 0.50
<u>8/31/06</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2 dichloroethane	< 0.50	< 15	FREE	36	< 0.50	< 0.50	< 2.5
1,2 dibromoethane	< 0.50	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 2.5
DIPE	< 0.50	< 15	NOT	< 20	< 0.50	< 0.50	1.4
TBA	< 5.0	81	SAMPLED	< 5.0	< 5.0	< 5.0	< 15
Other VOCs	< 0.50	< 15	-	< 20	< 0.50	< 0.50	< 5.0
<u>11/21/06</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2 dichloroethane	< 0.50	< 15	FREE	42	< 0.50	< 0.50	< 5.0
1,2 dibromoethane	< 0.50	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 5.0
DIPE	< 0.50	< 15	NOT	< 20	1.7	< 0.50	< 5.0
TBA	< 5.0	82	SAMPLED	230	5.4	< 5.0	< 25
Other VOCs	< 0.50	< 15	-	< 20	< 0.50	< 0.50	< 5.0

TABLE THREE
Groundwater Analytical Results
Oil & Grease and Volatile Organic Compounds
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Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
<u>2/12/07</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2-dichloroethane	< 0.50	< 15	FREE	36	< 0.50	< 0.50	< 2.5
1,2-dibromoethane	< 0.50	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 2.5
DIPE	1.2	< 15	NOT	< 20	1.4	< 0.50	< 2.5
TBA	< 5.0	190	SAMPLED	290	< 5.0	< 5.0	< 15
Other VOCs	< 0.50	< 15	-	< 20	< 0.50	< 0.50	< 2.5
<u>5/2/07</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2-dichloroethane	< 0.50	< 15	FREE	20	< 0.50	< 0.50	< 2.5
1,2-dibromoethane	< 0.50	< 15	PRODUCT	< 15	< 0.50	< 0.50	< 2.5
DIPE	1.3	< 15	NOT	< 15	1.3	< 0.50	< 2.5
TBA	< 5.0	110	SAMPLED	160	< 5.0	< 5.0	< 50
Other VOCs	< 0.50	< 15	-	< 15	< 0.50	< 0.50	< 2.5
<u>8/19/07</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2-dichloroethane	< 0.50	< 15	FREE	31	< 0.50	< 0.50	< 2.5
1,2-dibromoethane	< 0.50	< 15	PRODUCT	< 15	< 0.50	< 0.50	< 2.5
DIPE	0.85	< 15	NOT	15	1.3	< 0.50	< 2.5
TBA	< 5.0	81	SAMPLED	170	< 5.0	< 5.0	< 15
Other VOCs	0.96 PCE	< 15	-	< 15	0.72 PCE	< 0.50	< 2.5
<u>12/6/07</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2-dichloroethane	< 0.50	< 15	FREE	< 15	< 0.50	< 0.50	< 2.5
1,2-dibromoethane	< 0.50	< 15	PRODUCT	< 15	< 0.50	< 0.50	< 2.5
DIPE	< 5.0	< 15	NOT	22	1.5	< 0.50	< 2.5
TBA	< 5.0	120	SAMPLED	150	< 5.0	< 5.0	45
Other VOCs	< 0.50	< 15	-	< 15	< 0.50	< 0.50	< 2.5
<u>2/26/08</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2-dichloroethane	< 0.50	< 15	FREE	< 15	0.80	< 0.50	< 2.5
1,2-dibromoethane	< 0.50	< 15	PRODUCT	< 15	< 0.50	< 0.50	< 2.5
DIPE	1.1	< 15	NOT	< 15	5.8	< 0.50	< 2.5
TBA	< 5.0	< 70	SAMPLED	90	7.7	< 5.0	69
Other VOCs	< 0.50	< 15	-	< 15	< 0.50	< 0.50	< 2.5
<u>5/30/08</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2-dichloroethane	< 0.50	< 15	FREE	< 15	< 0.50	< 0.50	< 2.5
1,2-dibromoethane	< 0.50	< 15	PRODUCT	19	< 0.50	< 0.50	< 2.5
DIPE	0.95	< 15	NOT	< 15	3.1	< 0.50	< 2.5
TBA	< 5.0	84	SAMPLED	83	< 5.0	< 5.0	< 15
Other VOCs	< 0.50	< 15	-	< 15	< 0.50	< 0.50	< 2.5