

REMEDIATION WELL INSTALLATION REPORT


Former E-Z Serve Location No. 100877
525 West A Street
Hayward, California 95073
STID No. 3580

8/14/02

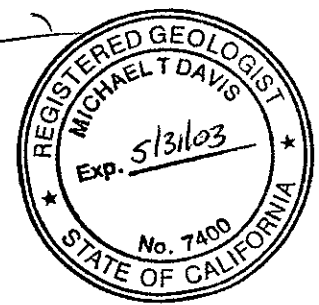
Submitted to
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Submitted by
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ATC Work Order No. 100877-C1-8
ATC Job No. 43.25827.0023
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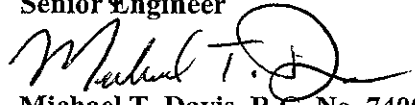
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4.0 SITE HISTORY, LITHOLOGY, AND AREA HYDROGEOLOGY

4.1 Site UST History

The general site location is shown in Figure 1, Vicinity Map and Figure 2, Previous Site Investigation Map – Groundwater Monitor Wells (ASA, January 1992/June 1993), illustrates the former underground storage tank (UST) system. ATC understands that the original USTs were removed on June 15, 1990. The former UST system consisted of four 10,000-gallon gasoline USTs, and three fuel dispenser islands. The 10,000-gallon USTs were located in the northwestern portion of the property. The fuel dispenser islands are located in the center of the site. Based on field observations and analytical results, the USTs were suspected to be the source of the release.

The site is currently vacant. There are no USTs or dispensers currently on-site; however, the canopy and remnant concrete islands are still present.

4.2 Previous Site Characterizations-Soil

In November 1986, Converse Environmental Consultants of California (CECC) conducted an initial phase of assessment as a result of a suspected fuel system leak. The assessment consisted on installation of three groundwater monitor wells, designated as MW1 through MW3, each with a total depth of 30 feet below ground surface (bgs). In June 1987, CECC conducted another phase of assessment, which included the installation of three additional groundwater monitor wells (MW4 through MW6). The original wells named MW2 through MW6 were destroyed during UST removal activities in June 1990. Hereafter, MW1 is designated as MW-1A.

In January 1992, Associated Soil Analysis, Inc. (ASA) performed a third phase of site investigation. During this investigation, six groundwater monitor wells, designated as MW-1 through MW-6, were installed on-site. All the wells were installed to a total depth of 30 feet bgs, and had a screened interval from approximately 15 to 30 feet bgs. The soil samples submitted for laboratory analysis indicated low to non-detect levels of fuel hydrocarbons. Monitor well locations are illustrated on Figure 2 and soil sample analytical results obtained during this assessment are summarized in Table 1, Previous Site Investigation – Groundwater Monitor Well – Soil Sample Analytical Results (ASA, January 1992/June 1993; BC, February 1995). Details of this assessment were presented in the ASA *Site Assessment Report*, dated May 2, 1992.

In June 1993, ASA performed another phase of assessment in the site vicinity. During this investigation, four groundwater monitor wells, designated as MW-7 through MW-10, were installed. MW-7 was installed approximately 85 feet north of the site in a yard of a trailer park residence. MW-8 was installed approximately 20 feet east of the intersection of West A Street and Garden Avenue. MW-9 was installed approximately 80 feet west of monitor well MW-1 at 533 West A Street. MW-10 was installed on the south side of West A Street southwest of Garden Avenue. The total depth of each well is reported to be approximately 30 feet bgs and the wells are reportedly screened from approximately 10 to 30 feet bgs. Analytical results of soil samples obtained from well boring MW-7 at an approximate depth of 15 feet

bgs, and from well borings MW-9 and MW-10 at approximate depths of 10 and 15 feet bgs indicated the presence of low levels of fuel hydrocarbon constituents. Petroleum hydrocarbon constituents were not detected above laboratory detection limits in the remaining soil samples submitted for analytical testing. Monitor well locations are illustrated on Figure 2 and soil data obtained during this assessment is summarized in Table 1. Details of this assessment were presented in the *ASA Site Assessment Study for Petroleum Constituents in Soil and Groundwater*, dated July 20, 1993.

In February 1995, Brown and Caldwell (BC) performed a phase of off-site assessment near the subject facility. During this investigation, four groundwater monitor wells, designated as MW-11 through MW-14, were installed. Prior to well installation activities, seventeen hydro-punch borings were advanced within the rights-of-way of West A Avenue, Victory Drive, Garden Street, and Lupine Street in an effort to locate the best position of wells MW-11 through MW-14. As a result of the hydro-punch boring sampling activities, MW-11 was installed within the right-of-way of West A Street approximately 460 feet west of the site. MW-12 was installed within the right-of-way of Garden Street approximately 250 feet north of the site. MW-13 was installed within the right-of-way of Victory Drive approximately 300 feet south of the site. MW-14 was installed within Garden Street approximately 180 feet north of the site. Monitor well MW-11 was installed to a total depth of 25 feet bgs and was screened from approximately 5 to 25 feet bgs. Monitor wells MW-12 through MW-14 were installed to a total depth of approximately 30 feet bgs and screened from approximately 10 to 30 feet bgs. Low to non-detect levels of petroleum hydrocarbons were detected in the soil samples obtained during drilling of well borings MW-11 through MW-14. Monitor well locations are illustrated on Figure 3, Previous Site Investigation Map – Hydro-punch Locations/Groundwater Monitor Wells (BC, February 1995). Soil sample analytical data obtained during this assessment is summarized in Table 1. Details of this assessment were presented in the *BC Draft Step 5, Phase II Site Investigation Report*, dated March 1, 1995.

4.3 Previous Site Characterizations – Groundwater Investigations

In November 1986 and June 1987, CECC installed six monitor wells (MW-1A, and MW2 through MW6). With the exception of MW-1A, these wells were destroyed during UST removal activities conducted in June 1990. In February 1992, ASA installed six groundwater monitor wells (MW-1 through MW-6). In June 1993, ASA installed four groundwater monitor wells (MW-7 through MW-10). In February 1995, BC installed groundwater monitor wells MW-11 through MW-14. Monitor well construction details are presented in Table 2, Monitor Well Construction Details.

During the most recent groundwater gauging and sampling event that was conducted by ATC on May 29, 2002, depth to groundwater ranged between 14.10 (MW-13) to 16.24 (MW-12) feet below ground surface (bgs). The direction of groundwater flow was southwesterly with a calculated hydraulic gradient of approximately 0.009 ft/ft. No measurable phase-separated hydrocarbons (PSH) were recorded during this monitoring event. On May 29, 2002, ATC collected groundwater samples from 11 monitoring wells. Groundwater samples collected were analyzed for total petroleum hydrocarbons characterized as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX); fuel oxygenates methyl tert-butyl

ether (MTBE) di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA) by EPA Test Method 8260. The highest TPHg, benzene, and MTBE concentrations reported were 12,000, 390, and 32 µg/L, respectively. The highest TPHg concentration was reported in MW-1A, and the highest benzene and MTBE concentrations were reported in MW-2. Groundwater elevations, contours and contaminant concentrations are illustrated on Figure 3, Groundwater Summary Map (May 29, 2002). Groundwater-monitoring data is presented in Table 3, Groundwater Elevations and Sample Analytical Results and Table 4, Groundwater Sample Analytical Results for Fuel Oxygenates and Additives. Details of this quarterly sampling event are documented in the ATC *Quarterly Groundwater Monitoring Report (2nd Quarter, 2002)*, dated July 10, 2002.

4.4 Site and Area Lithology

According to ASA, the subject site is located within the San Leandro cone, a low gradient alluvial fan, which originates at the mouth of Castro Valley and spreads westward onto the Bay Plain. This cone consists of alluvial sediments, which overlie marine clay, terrigenous sand and silt of inter-tidal provenances. Based on previous investigations, shallow soils consist of silty clay, clay, clayey silt, silty sand, and sand to a total depth of approximately 30 feet bgs (the maximum depth explored).

The Hayward Fault, the San Andreas Fault and the Calaveras Fault are the closest major faults in the vicinity of the site.

4.5 Area Hydrology and Hydrogeology

According to BC, the shallowest regional aquifer in the area is the Newark Aquifer, which consists of permeable water bearing alluvial sand. The Newark Aquifer consists of series of laterally discontinuous saturated lenses of coarse to fine-grained sediments 10 to 100 feet thick at depths less than 200 feet bgs. The regional hydraulic gradient is westward, from the mouth of the Castro Valley towards the San Francisco Bay. The nearest water wells in the area indicate depths to the first water table to be 6 to 21 feet bgs.

An inventory of wells within a ½ mile radius of the site was compiled by ASA. This list was compiled from available well logs and permits at the Alameda County Flood Control and Water Conservation District, Hayward Quadrangle files. Fifteen wells are located within a ½ mile radius of the site, five of which are located within approximately 1,500 feet of the site. Ten of the wells are categorized as shallow (terminating less than 100 feet bgs) with the remaining five having greater depths. Of the ten shallow wells, five are used for water supply, three for groundwater monitoring, and two for unspecified uses.

Based on the groundwater monitoring event conducted on May 29, 2002, the calculated groundwater hydraulic gradient and flow direction indicates a southwestern flow direction at a gradient of 0.009 ft/ft beneath the site.

5.0 SCOPE OF WORK

The Workplan for Remediation Well Installation and Feasibility Studies, prepared by ATC and dated December 21, 2001, was approved by Alameda County Health Care Services (ACHCS), in a letter dated March 11, 2002. A copy of this letter is presented in Appendix A. Based on the results of the previous site characterization activities, the most recent groundwater monitoring data, and in accordance with the ACHCS request, ATC conducted the following:

1. Continue quarterly groundwater gauging and sampling activities.
2. Installed one groundwater extraction well on-site for the purposes of conducting a 24-hour groundwater pump test. The groundwater extraction well was installed to a total depth of approximately 35 feet, and was screened from 10 to 35 feet bgs.
3. Installed three dual combination vapor extraction/air sparge wells (VEAS-1 through VEAS-3) on-site for the purposes of conducting pilot study activities. The two foot air sparge points were installed to depths of approximately 30 feet bgs (VEAS-1 through VEAS-3), and the vapor extraction wells set at approximately 15 feet bgs, and screened from approximately 5 to 15 feet bgs.

The scope of work included: preparation of a Community Health and Safety Plan, site reconnaissance, well drilling, organic vapor monitoring, soil sampling (for lithologic logging, analytical testing and waste characterization purposes), remediation well installation, quarterly groundwater gauging and sampling, analytical chemistry, data interpretation, and Remediation Well Installation Report preparation. Each part is described below.

5.1 Community Health and Safety Plan

ATC has established a Safety and Health Program (SHP) to ensure the personal health and safety of all ATC employees. The SHP defines safety practices and procedures to be instituted in all ATC work places, as applicable. The program meets, and often exceeds, the requirements promulgated by the Occupational Safety and Health Act (OSHA). As part of the SHP, all ATC personnel are appropriately trained and under a Medical Surveillance Program in accordance with OSHA 40 CFR 1910.120.

ATC's primary mechanism to ensure employee, environmental, and public safety at the project site will be the Community Health and Safety Plan (CHASP). ATC will prepare, approve and implement a CHASP for this project. All individuals working under the purview of ATC were required to read and sign the CHASP to acknowledge their understanding of the information contained in it. The CHASP is site-specific and task-specific, and describes hazardous conditions that may be encountered and prescribing the necessary safety protocols to protect employees from these hazards. The CHASP was reviewed by the project management team and then reviewed and approved for field use by the Site Safety and Health Officer. The CHASP was implemented and enforced on site by the assigned Site Safety and Health Officer. ATC prepared a comprehensive CHASP based on the scope of work and the potential hazards described in the Workplan dated December 21, 2001.

At a minimum, the CHASP identified the following: roles and responsibilities of key site personnel; hazard analysis for all chemical, physical, and physiochemical hazards anticipated; a personnel protection plan; site safety procedures for specific site operations, (e.g., drilling, etc.); a decontamination plan; and an emergency response/contingency plan. The CHASP will specify levels of protection for site personnel on a task-specific basis. As with any project of this magnitude, there are inevitable encounters with a variety of physical hazards ranging from simple housekeeping to temperature extremes. ATC provided continual evaluation of all potentially hazardous conditions, as the project was undertaken and prescribed additional safety protocols to protect site personnel as needed.

5.2 Permitting

ATC completed well permit applications to drill and install remediation wells (EX-1, and VEAS-1 through VEAS-3) and submitted them to the County of Alameda Public Works Agency. Copies of the approved well permits are included in Appendix B.

5.3 Drilling and Soil Sampling

Prior to drilling the soil borings, ATC contacted Underground Service Alert (USA) and a private utility locator service to locate possible subsurface utilities in the vicinity of the proposed boring locations. Following utility clearance, drilling was scheduled. ATC utilized a hollow-stem-drilling rig equipped with 10 and 12-inch diameter augers supplied by Bay Area Exploration, Inc., C-57 License No. 522125.

The well borings were drilled and sampled in general accordance with ATC's Standard Operating Procedure – Soil Borehole Drilling, Monitor Well Installation and Development, and Soil Sampling, which is included in Appendix C. Undisturbed soil samples were collected at approximately 5-foot intervals from the borings. The samples were utilized for analytical testing, lithologic logging and waste characterization purposes. Additional details are provided below.

On June 20, 2002, ATC directed the installation of three vapor extraction/air sparge remediation wells (VEAS-1 through VEAS-3). The location of each remediation well is illustrated on Figure 4, Site Plan with Geologic Cross-Section Lines. Soil types encountered during drilling are illustrated on Figure 5, Geologic Cross Section A-A' and Figure 6, Geologic Cross-Section B-B', and on the boring logs, which are provided in Appendix D. ATC supervised the drilling and installation of each dual completion vapor extraction/air sparge well to depths of approximately 30 feet bgs. Remediation well construction details are illustrated on Figure 7, Remediation Well (VEAS-1 through VEAS-3) Construction Detail.

On June 24, 2002, ATC also supervised the drilling and installation of one six-inch diameter groundwater extraction well on-site (EX-1) to a depth of approximately 35 feet. The location of EX-1 is illustrated on Figure 4. Remediation well construction details are illustrated on Figure 8, Groundwater Extraction Well (EX-1) Construction Detail.

An ATC staff scientist completed lithologic logs for each boring in general accordance with ASTM Method D 2488-90. Boring Log Notes, Method of Soil Classification, Soil Boring Graphics, and edited

Boring Logs are included in Appendix D. All drill cuttings were collected in Department of Transportation (DOT)-approved 55-gallon drums pending appropriate disposal as non-hazardous waste.

5.4 Organic Vapor Monitoring

To obtain preliminary data regarding the degree of potential petroleum hydrocarbon-impact to soil and for health and safety concerns, a representative sample was collected at each soil sampling location and field screened for volatile organic vapors utilizing a hand held photo-ionization detector (PID) in general accordance with ATC's Standard Operating Procedure - Field Soil Vapor Monitoring, which is included in Appendix C. PID readings were recorded on the boring logs.

5.5 Well Installation

Following completion of borings VEAS-1 through VEAS-3 the borings were completed as dual completion vapor extraction/air sparge wells. The borings were drilled to approximately 30 feet below ground surface. The vapor extraction portion of the wells were constructed of a 4-inch PVC casing screened from 5 to 15 feet (0.020-inch slots). The air sparge portions of the dual wells were constructed of 1-inch Schedule 80 PVC and a stainless steel air sparge tip screened from 28 to 30 feet bgs (0.020-inch slots).

The annulus of the screened portion of the vapor extraction/air sparge wells were backfilled with a #3 Monterey sand (or equivalent) filter pack from approximately 4 to 15 feet, and from 27 to 30 feet bgs, respectively. Hydrated bentonite chips (from 25 to 27 feet bgs) and bentonite grout (from 15 to 25 feet bgs) created the necessary annular seals for the air sparge portion of the wells. Hydrated bentonite chips were used to create a 2-foot seal above the vapor extraction portion of the wells (from 2 to 4 feet bgs). The wells were completed from 2 feet bgs to the ground surface with a watertight, flush-mounted, traffic-rated vault slightly raised for drainage and set in concrete. All well casing and screen were delivered to the site in factory-sealed containers. Construction details are illustrated in Figure 7.

Following completion of well boring EX-1, the boring was completed as a groundwater extraction well. EX-1 was constructed with blank 6-inch, Schedule 40 PVC casing from surface to 10 feet bgs, and 25 feet of slotted (0.020-inch slots) 6-inch stainless steel well screen. All well casing and screen was delivered to the site in factory-sealed containers. The annulus of the screened portion of the extraction well was backfilled with a #3 Monterey sand (or equivalent) filter pack from approximately 9 to 35 feet bgs. The filter material will then be settled by surging the well with a surge block. Sand was added prior to the placement of the bentonite seal to compensate for any settlement. A 2-foot layer of bentonite pellets was placed on top of the upper filter pack and hydrated to form an annular seal. The remaining annular space to the surface was filled with cement/bentonite grout. The well was completed at the ground surface with a watertight, flush-mounted, traffic-rated vault. Construction details are illustrated in Figure 7.

Following groundwater extraction well completion, EX-1 was developed by a combination of surging and bailing groundwater from the well. Approximately 50 gallons of purge water was generated during development of EX-1. Groundwater purged from the well was contained in properly labeled DOT-

approved 55-gallon drums and stored on-site pending proper disposition. The groundwater extraction well was installed and developed in general accordance with ATC's Standard Operating Procedure - Soil Borehole Drilling, Monitor Well Installation and Development, and Soil Sampling, which is included in Appendix C.

A California-licensed land surveyor (Wecker Surveys) surveyed the location and elevation of existing wells MW-1, MW-1A, MW-2 through MW-7, and MW-12 through MW14 to USGS Benchmark M 1370 (elevation = 48.50 feet above mean sea level) prior to the installation of EX-1, which will be surveyed at a later date. The location and elevation of measuring marks at each wellhead were surveyed to the nearest 0.01-foot by the licensed surveyor in order to more accurately determine the local groundwater flow direction beneath the site relative to mean sea level. In addition, in accordance with Article 12 (Section 2729.1) of Chapter 16, Division 3, Title 23 of the California Code of Regulation (CCR), the latitude and longitude of each groundwater monitor well were measured with a Global Positioning Device to an accuracy of one meter. This data was used during groundwater surface elevation calculations which are illustrated on Figure 3.

5.6 Groundwater Monitoring and Sampling

ATC gauged and collected a groundwater sample from newly installed groundwater extraction well (EX-1) on July 9, 2002.

Phase separated hydrocarbons (PSH) were not present in EX-1, therefore, the static water level was measured, an appropriate volume of groundwater was purged, and a representative groundwater sample was collected from the well in general accordance with ATC's Standard Operating Procedure - Groundwater Monitor Well Purging and Sampling, which is included in Appendix C. After future groundwater sampling events, Quarterly groundwater monitoring reports will be prepared and submitted to the ACHCS. The reports will summarize the quarterly groundwater elevation measurements, calculated groundwater gradient and flow direction and analytical results of the quarterly sampling.

5.7 Analytical Testing

Representative soil and groundwater samples were performed by ZymaX Envirotechnology (ZymaX), a State-certified analytical laboratory located in San Luis Obispo, California. Quality Assurance and Quality Control (QA/QC) procedures, sample preservation, apparatus required, and analyses performed were per: 1) A.A.C. R9-14-601 through -617; 2) U.S. EPA Document EPA-600, "Methods for Chemical Analysis for Water and Wastes" dated July 1982; and 3) U.S. EPA document SW-846, 3rd Edition, "Test Methods for Evaluating Solid Waste: Physical Chemical Methods", dated November 1986.

Select soil and groundwater samples were analyzed for total petroleum hydrocarbons characterized as gasoline (TPHg), benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl-tertiary-butyl ether (MTBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), di-isopropyl ether (DIPE), and ethyl-tert-butyl ether (ETBE) in accordance with Environmental Protection Agency (EPA) Test Method 8260B.

5.8 Summary of Soil Sample Analytical Results

During the remediation well installation activities, which took place on June 20 and 21, 2002 and on June 24, 2002, twenty-four (24) soil samples were submitted to ZymaX for analytical testing. Fifteen (15) of the soil samples submitted for laboratory analysis were reported to contain petroleum hydrocarbon constituent concentrations above their respective laboratory equipment practical quantitation limits (PQLs). A summary of soil sample analytical results from this phase of site assessment is provided in Table 5, Groundwater Remediation Wells, Soil Sample Analytical Results – Petroleum Hydrocarbons and Fuel Oxygenates. The distribution of selected constituent concentrations is shown on Figure 5 and Figure 6.

TPHg was detected above the laboratory PQL of 0.5 milligrams per kilogram (mg/kg, equivalent to parts per million) in nine (9) soil samples at concentrations ranging from 1.1 mg/kg in soil sample EX-1/25' to 670 mg/kg in soil sample VEAS-1/20'. Benzene was detected above the laboratory PQL of 0.5 mg/kg, in five (5) soil samples at concentrations ranging from 0.006 in soil sample EX-1/15' to 0.7 mg/kg in soil sample VEAS-1/20'. Toluene was not detected above the laboratory PQLs ranging from 0.005 to 0.1 mg/kg in any of the 24 soil samples analyzed. Ethylbenzene was detected above the laboratory PQLs of 0.005 mg/kg in ten (10) soil samples at concentrations ranging from 0.005 mg/kg in soil sample VEAS-2/5' to 8.8 mg/kg in soil sample VEAS-1/20'. Total Xylenes constituents were detected above the laboratory PQLs of 0.005 mg/kg in fourteen (14) soil samples at concentrations ranging from 0.006 mg/kg in soil sample VEAS-2/30' to 40 mg/kg in soil sample VEAS-1/20'.

Fuel oxygenates MTBE, TAME, TBA, DIPE and ETBE were not detected above the laboratory PQLs, which ranged from 0.005 to 1.0 mg/kg, in the twenty-four soil samples submitted for laboratory analysis during the remediation well installation activities.

Laboratory PQLs were increased for some analytes due to the dilution required to analyze elevated concentrations of other constituents within the same sample. A summary of soil sample analytical results for this phase of work is provided in Table 5. Laboratory reports and chain-of-custody documentation is included in Appendix E.

5.9 Summary of Groundwater Sample Analytical Results

During the groundwater extraction well sampling activities, which took place on July 9, 2002, groundwater extraction well (EX-1) was gauged, purged and sampled. The groundwater sample was reported to contain petroleum hydrocarbon constituent concentrations above their respective laboratory PQLs.

TPHg was reported at a concentration of 3,100 micrograms per liter ($\mu\text{g/L}$) in the groundwater sample collected from EX-1. Benzene, toluene, ethylbenzene and total xylenes were reported at concentrations of 83, 21, 6.5, and 220 $\mu\text{g/L}$, respectively.

Fuel oxygenates MTBE and DIPE were reported at concentrations of 3.3 and 0.6 µg/L, respectively. Fuel oxygenates TAME, TBA, and ETBE were not detected above the laboratory PQLs, which ranged from 0.5 to 5.0 µg/L in groundwater sample collected from groundwater extraction well EX-1. Laboratory reports and chain-of-custody documentation is included in Appendix E.

6.0 FINDINGS AND RECOMMENDATIONS

Based on historical research, field observations, laboratory analytical results and groundwater gradient and flow direction calculations, it is ATC's opinion that the vertical extent of hydrocarbon and/or fuel oxygenate-impacted soil has been defined to an acceptable level vertically in the vicinity of the former UST locations at the site. The highest concentrations of TPHg and benzene were detected in the soil samples collected from well borings VEAS-1 at a depth of approximately 20 feet bgs. TPHg, benzene, toluene, ethylbenzene and fuel oxygenates MTBE, TAME, TBA, DIPE and ETBE were not detected above the laboratory PQLs in the samples collected from the bottom of all well borings (EX-1, VEAS-1 through VEAS-3). Low levels of total xylenes constituents were detected in the bottom samples in well borings VEAS-2 and EX-1.

Based on these findings, ATC recommends the following:

- Incorporate the findings of the recently completed pilot testing activities into a Corrective Action Plan and submit it to the CRWQCB for review and approval;
- Continue quarterly groundwater sampling of all accessible groundwater monitor wells.

7.0 LIMITATIONS

The discussions and recommendations contained in this report represent the professional opinions of ATC. These opinions are based on analysis and interpretation of currently available information. All work has been performed in accordance with generally accepted practices among geotechnical/environmental engineering, engineering geology and hydrogeology consulting firms at this time and location. No other warranty, either expressed or implied, is made.

8.0 REFERENCES

- ATC, 2001. *Workplan for Remediation Well Installation and Feasibility Studies*, December 21, 2001
- ATC, 2002. *Quarterly Groundwater Monitoring Report (2nd Quarter, 2002)*, dated July 10, 2002.
- BC, 1995. *Step 5, Phase II Site Investigation Report*, dated March 1, 1995.
- ASA, 1993. *Site Assessment Study for Petroleum Constituents in Soil and Groundwater*, dated July 20, 1993.
- ASA, 1992. *Site Assessment Report*, dated May 2, 1992.

TABLES

TABLE 1
PREVIOUS SITE INVESTIGATION
GROUNDWATER MONITOR WELLS
SOIL SAMPLE ANALYTICAL RESULTS (ASA, January 1992/June 1993; BC, February 1995)
FORMER EZ-SERVE FACILITY NO. 100877
ATC JOB NO. 43.25827.0024
(Results in milligrams per kilogram (mg/kg))

Sample Identification	Sample Depth (feet)	Sampling Date	Lithology	TPH EPA 8015	Benzene EPA 8020	Toluene EPA 8020	Ethylbenzene EPA 8020	Total Xylenes EPA 8020
MW-1	11.0-11.5	1/28/1992	Sand	<0.5	0.12	<0.005	0.0073	0.0053
MW-1	16.0-16.5	1/28/1992	Clay	19	0.98	0.013	0.17	0.35
MW-2	11.0-11.5	1/28/1992	Silty Sand	<0.5	<0.005	<0.005	<0.005	<0.005
MW-2	16.0-16.5	1/28/1992	Clay	5.4	<0.005	<0.005	1.1	0.057
MW-3	11.0-11.5	1/28/1992	Silty Sand	5.6	0.69	<0.005	0.048	0.013
MW-3	16.0-16.5	1/28/1992	Clay	6.4	1.0	<0.005	0.13	0.078
MW-4	6.0-6.5	1/28/1992	Silty Sand	28	0.035	<0.024	0.4	1.6
MW-4	11.0-11.5	1/28/1992	Silty Sand	5.7	0.22	0.076	0.17	0.64
MW-4	16.0-16.5	1/28/1992	Clay	15	2.7	1.2	0.39	1.8
MW-5	11.0-11.5	1/28/1992	Silty Sand	0.79	0.3	<0.005	0.049	0.019
MW-5	16.0-16.5	1/28/1992	Clay	7.2	0.66	0.016	0.16	0.55
MW-6	11.0-11.5	1/28/1992	Silty Sand	<0.5	0.0076	<0.005	<0.005	0.0052
MW-6	16.0-16.5	1/28/1992	Clay	0.55	0.17	<0.005	0.016	0.021
MW-7	5	6/21/1993	Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-7	10	6/21/1993	Silty Sand	<0.5	<0.005	<0.005	<0.005	<0.015
MW-7	15	6/21/1993	Silty Clay	0.5	0.012	<0.005	0.038	<0.015
MW-8	5	6/22/1993	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-8	10	6/22/1993	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-8	15	6/22/1993	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-9	5	6/22/1993	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-9	10	6/22/1993	Silty Sand	<0.5	0.015	<0.005	<0.005	<0.015
MW-9	15	6/22/1993	Clay	9	0.13	0.027	0.19	0.76
MW-10	5	6/22/1993	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-10	10	6/22/1993	Sandy Silt	<0.5	0.016	<0.005	<0.005	<0.015
MW-10	15	6/22/1993	Clay	0.59	0.0089	<0.005	0.051	0.015

TABLE 1
PREVIOUS SITE INVESTIGATION
GROUNDWATER MONITOR WELLS
SOIL SAMPLE ANALYTICAL RESULTS (ASA, January 1992/June 1993; BC, February 1995)
FORMER EZ-SERVE FACILITY NO. 100877
ATC JOB NO. 43.25827.0024
(Results in milligrams per kilogram (mg/kg))

Sample Identification	Sample Depth (feet)	Sampling Date	Lithology	TPH EPA 8015	Benzene EPA 8020	Toluene EPA 8020	Ethylbenzene EPA 8020	Total Xylenes EPA 8020
MW-11	10	2/6/1995	Silty Sand	<100	<1	<1	2	5
MW-11	15	2/6/1995	Clayey Sand	100	<1	<1	2	5
MW-12	10	2/6/1995	Sandy Clay	310	<1	<1	1	4
MW-12	15	2/6/1995	Sandy Clay	<100	<1	<1	<1	1
MW-13	10	2/7/1995	Sandy Silt	<100	<1	<1	<1	<1
MW-13	15	2/7/1995	Clayey Sand	<100	<1	<1	<1	11
MW-14	10	2/7/1995	Silty Sand	<100	<1	<1	<1	<1
MW-14	15	2/7/1995	Silty Sand	760	1	<1	1	9

Notes:

TPH Total petroleum hydrocarbons; analyzed by EPA method 8015
 <0.5 Less than the detection limit of 0.5
 mg/kg milligrams per kilograms (parts per million)

TABLE 2
GROUNDWATER MONITOR AND REMEDIATION WELL
CONSTRUCTION DETAILS AND SURVEY DATA
FORMER E-Z SERVE LOCATION NO. 100877
525 West A Street, Hayward, California

Well Number	Date of Construction	Casing Diameter (inches)	Boring Diameter (inches)	Screen Slot Size (inches)	Total Depth (ft bgs)	Screened Interval (ft bgs)	Surveyed Top of Casing Elevation (feet AMSL)	Surveyed Date
MW-1	1/28/1992	4	11	0.020	30	15-29	41.75	2/5/2002
MW-1A	--	4	--	--	30	--	43.40	2/5/2002
MW-2	1/28/1992	4	11	0.020	30	15-29	43.26	2/5/2002
MW-3	1/28/1992	4	11	0.020	30	15-29	43.89	2/5/2002
MW-4	1/28/1992	4	11	0.020	30	15-29	42.76	2/5/2002
MW-5	1/29/1992	4	11	0.020	30	15-29	42.10	2/5/2002
MW-6	1/29/1992	4	11	0.020	30	15-29	42.33	2/5/2002
MW-7	6/21/1993	2	8.5	0.020	30	10-29	42.70	2/5/2002
MW-8	6/22/1993	2	8.5	0.020	30	10-29	--	--
MW-9	6/22/1993	2	8.5	0.020	30	10-29	--	--
MW-10	6/22/1993	2	8.5	0.020	30	10-29	--	--
MW-11	2/6/1995	2	8	0.020	25	5-25	--	--
MW-12	2/6/1995	2	8	0.020	30	10-30	43.25	2/5/2002
MW-13	2/7/1995	2	8	0.020	30	10-30	40.97	2/5/2002
MW-14	2/7/1995	2	8	0.020	30	10-30	43.19	2/5/2002
VE/AS-1	6/20/2002	4/1	10	0.020	30	5-15/28-30	--	--
VE/AS-2	6/20/2002	4/1	10	0.020	30	5-15/28-30	--	--
VE/AS-3	6/20/2002	4/1	10	0.020	30	5-15/28-30	--	--
EX-1	6/24/2002	6	12	0.020	35	10-35	--	--

Notes :
 AMSL = Above mean sea level
 -- = Data not available.

TABLE 3
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-1	2/5/92	41.75	20.82	20.93	0.00	46,000	7,600	2,300	2,400	6,500	--
	9/11/92	41.75	20.08	21.67	0.00	48,000	9,000	1,200	1,800	4,600	--
	12/22/92	41.75	19.79	21.96	0.00	84,000	22,000	1,600	4,800	17,000	--
	3/3/93	41.75	16.23	25.52	0.00	54,000	16,000	1,600	1,900	4,300	--
	6/23/93	41.75	16.86	24.89	0.00	30,000	18,000	1,100	1,400	3,700	--
	9/30/93	41.75	18.04	23.71	0.00	33,000	10,000	440	940	1,700	--
	2/6/94	41.75	18.15	23.60	0.00	64,000	18,000	1,600	4,700	12,000	--
	5/2/94	41.75	17.26	24.49	0.00	7,200	2,100	29	490	520	--
	7/1/94	41.75	17.60	24.15	0.00	13,000	3,700	150	550	12,000	--
	9/20/94	41.75	20.59	21.16	0.00	10,000	3,100	75	440	870	--
	12/5/94	41.75	17.83	23.92	0.00	8,700	3,700	87	520	950	--
	3/10/94	41.75	14.67	27.08	0.00	--	--	--	--	--	--
	3/15/94	41.75	14.43	27.32	0.00	290	56	2	12	47	--
	9/23/96	41.75	14.92	26.83	0.00	20,000	5,200	860	700	1,100	270
	12/4/96	41.75	15.61	26.14	0.00	17,000	3,100	64	610	1,200	280
	4/8/97 ^{NP}	41.75	13.25	28.50	0.00	2,100	430	15	52	85	100
	6/30/97	41.75	14.68	27.07	0.00	10,000	2,100	<	<	320	<
	11/25/97	41.75	15.99	25.76	0.00	16,000	2,100	23	76	240	<
	6/1/98	41.75	9.98	31.77	0.00	19,000	6,100	430	1,100	2,300	420
	6/14/01	41.75	15.05	26.70	0.00	6,000	380	8.4	260	180	<25
11/7/01 ²	41.75	16.31	25.44	0.00	12,000	1,000	30	1,000	740	11	
1/30/02	41.75	14.15	27.60	0.00	8,800	690	16	480	270	14	
5/29/02	41.75	14.55	27.20	0.00	6,400	330	13	250	260	12	
MW-1A	6/23/93	43.40	17.80	25.76	0.21	--	--	--	--	--	--
	9/30/93	43.40	--	--	--	--	--	--	--	--	--
	2/6/94	43.40	18.89	24.51	0.00	8,900	1,700	42	1,000	400	--
	5/2/94	43.40	18.35	25.12	0.09	--	--	--	--	--	--
	7/1/94	43.40	18.45	24.95	0.00	12,000	1,100	<1	920	1,100	--
	9/20/94	43.40	21.72	21.85	0.22	--	--	--	--	--	--
	12/5/94	43.40	18.87	24.58	0.07	--	--	--	--	--	--
	3/10/94	43.40	15.83	27.57	0.00	--	--	--	--	--	--
	3/15/94	43.40	15.55	27.89	0.05	--	--	--	--	--	--
	9/23/96	43.40	16.00	27.41	0.01	--	--	--	--	--	--
	12/4/96	43.40	16.55	26.85	0.00	52,000	420	140	1,000	3,500	130
	4/8/97 ^{NP}	43.40	14.15	29.25	SHEEN	--	--	--	--	--	--
	6/30/97	43.40	15.57	27.83	0.00	17,000	180	<	140	1,100	<
	11/25/97	43.40	16.91	26.49	0.00	19,000	110	37	290	910	<
	6/1/98	43.40	10.78	32.62	0.00	18,000	200	17	230	820	91
	6/14/01	43.40	15.93	27.48	0.01	27,000	29	<5.0	620	520	<50
11/7/01 ²	43.40	17.32	26.08	0.00	21,000	51	<5.0	700	510	<5.0	
1/30/02	43.40	15.05	28.35	0.00	24,000	22	<5.0	390	330	<5.0	
5/29/02	43.40	15.49	27.91	0.00	12,000	32	<5.0	550	270	<5.0	
MW-2	2/5/92	43.26	22.35	20.91	0.00	67,000	13,000	4,700	820	1,300	--
	9/11/92	43.26	21.67	21.59	0.00	57,000	9,000	1,400	1,200	8,400	--
	12/22/92	43.26	21.39	21.87	0.00	31,000	9,900	350	2,000	4,100	--
	3/3/93	43.26	17.75	25.51	0.00	17,000	5,100	1,300	720	1,900	--
	6/23/93	43.26	18.42	24.84	0.00	60,000	23,000	1,500	4,500	17,000	--
	9/30/93	43.26	19.63	23.63	0.00	38,000	12,000	780	1,500	6,500	--
	2/6/94	43.26	19.61	23.65	0.00	34,000	8,900	450	2,000	5,500	--
	5/2/94	43.26	19.84	23.42	0.00	18,000	3,800	260	1,100	3,500	--
	7/1/94	43.26	19.18	24.08	0.00	18,000	3,700	510	870	2,600	--
	9/20/94	43.26	22.17	21.09	0.00	19,000	4,500	300	1,200	4,000	--
	12/6/94	43.26	19.37	23.89	0.00	22,000	4,700	340	1,400	4,500	--
	3/10/95	43.26	16.33	26.93	0.00	--	--	--	--	--	--
	3/15/95	43.26	16.89	26.37	0.00	29,000	5,600	350	1,900	6,300	--

TABLE 3
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-2 (Cont.)	9/23/96	43.26	16.61	26.65	0.00	29,000	3,700	150	1,000	4,300	860
	12/4/96	43.26	17.19	26.07	0.00	31,000	3,800	140	2,000	5,100	690
	4/8/97 ^{NP}	43.26	14.86	28.40	0.00	20,000	2,500	80	1,300	3,400	880
	6/30/97	43.26	16.28	26.98	0.00	41,000	2,700	130	1,200	4,000	890
	11/25/97	43.26	17.56	25.70	0.00	51,000	2,900	140	1,800	7,000	1,200
	6/1/98	43.26	11.58	31.68	0.00	33,000	2,700	130	1,800	5,700	610
	6/14/01	43.26	16.63	26.63	0.00	18,000	860	14	1,100	2,200	<100
	11/7/01 ²	43.26	17.85	25.41	0.00	20,000	880	20	1,100	2,600	21
	1/30/02	43.26	15.65	27.61	0.00	19,000	880	19	1,100	2,400	56
	5/29/02	43.26	16.12	27.14	0.00	8,100	390	16	560	1,400	32
MW-3	2/5/92	43.89	21.85	22.04	0.00	16,000	2,700	410	<1	3,400	--
	9/11/92	43.89	21.13	22.76	0.00	43,000	7,600	1,600	1,400	4,100	--
	12/22/92	43.89	20.88	23.01	0.00	29,000	8,800	1,200	1,500	3,700	--
	3/3/93	43.89	17.29	26.60	0.00	17,000	5,000	1,500	680	1,700	--
	6/23/93	43.89	17.88	26.01	0.00	5,700	3,000	120	560	790	--
	9/30/93	43.89	19.18	24.71	0.00	21,000	7,000	2,100	970	2,600	--
	2/6/94	43.89	19.21	24.68	0.00	24,000	7,200	1,600	990	3,200	--
	5/2/94	43.89	18.30	25.59	0.00	10,000	2,200	440	470	1,200	--
	7/1/94	43.89	18.63	25.26	0.00	8,200	2,000	370	350	930	--
	9/20/94	43.89	21.64	22.25	0.00	7,200	2,000	360	380	1,000	--
	12/6/94	43.89	19.15	24.74	0.00	9,000	2,300	400	440	1,100	--
	3/10/95	43.89	16.33	27.56	0.00	--	--	--	--	--	--
	3/15/95	43.89	16.89	27.00	0.00	4,300	980	47	370	780	--
	9/23/96	43.89	16.11	27.78	0.00	10,000	950	20	700	780	80
	12/4/96	43.89	16.63	27.26	0.00	13,000	1,100	25	1,000	1,100	67
	4/8/97 ^{NP}	43.89	14.25	29.64	0.00	3,800	210	4.6	270	280	56
	6/30/97	43.89	15.70	28.19	0.00	3,500	280	<	32	180	<
	11/25/97	43.89	16.99	26.90	0.00	6,800	230	<	370	290	130
	6/1/98	43.89	--	--	--	--	--	--	--	--	--
	6/14/01	43.89	16.02	27.87	0.00	2,100	9	<0.5	78	43	<5.0
11/7/01 ⁴	43.89	17.33	26.56	0.00	7,700	75	<5.0	410	150	<5.0	
1/30/02	43.89	15.10	28.79	0.00	3,600	27	<5.0	120	34	<5.0	
5/29/02	43.89	15.63	28.26	0.00	2,000	18	<5.0	53	13	<5.0	
MW-4	2/5/92	42.76	21.31	21.45	0.00	16,000	2,700	410	<1	3,400	--
	9/11/92	42.76	20.62	22.14	0.00	43,000	7,600	1,600	1,400	4,100	--
	12/22/92	42.76	20.37	22.39	0.00	29,000	8,800	1,200	1,500	3,700	--
	3/3/93	42.76	16.78	25.98	0.00	17,000	5,000	1,500	680	1,700	--
	6/23/93	42.76	17.45	25.31	0.00	5,700	3,000	120	560	790	--
	9/30/93	42.76	18.64	24.12	0.00	21,000	7,000	2,100	970	2,600	--
	2/6/94	42.76	18.59	24.17	0.00	24,000	7,200	1,600	990	3,200	--
	5/2/94	42.76	17.81	24.95	0.00	10,000	2,200	440	470	1,200	--
	7/1/94	42.76	18.13	24.63	0.00	8,200	2,000	370	350	930	--
	9/20/94	42.76	21.13	21.63	0.00	7,200	2,000	360	380	1,000	--
	12/6/94	42.76	18.36	24.40	0.00	9,000	2,300	400	440	1,100	--
	3/10/95	42.76	15.25	27.51	0.00	--	--	--	--	--	--
	3/15/95	42.76	14.89	27.87	0.00	15,000	4,400	600	770	2,660	--
	9/23/96	42.76	15.56	27.20	0.00	32,000	7,400	540	1,500	2,800	2,100
	12/4/96	42.76	16.11	26.65	0.00	23,000	7,800	140	1,200	1,200	1,900
	4/8/97 ^{NP}	42.76	13.73	29.03	0.00	16,000	3,900	680	850	2,300	980
	6/30/97	42.76	15.19	27.57	0.00	63,000	7,000	430	1,400	4,400	1,700
	11/25/97	42.76	16.49	26.27	0.00	30,000	4,300	61	810	1,500	880
	6/1/98	42.76	10.42	32.34	0.00	33,000	5,700	710	1,700	2,900	720
	6/14/01	42.76	15.55	27.21	0.00	9,500	690	45	560	600	<50
11/7/01 ²	42.76	16.81	25.95	0.00	6,000	710	20	630	190	27	

TABLE 3
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-4	1/30/02	42.76	14.60	28.16	0.00	4,800	830	16	600	61	42
	(Cont.) 5/29/02	42.76	15.14	27.62	0.00	5,300	720	57	600	200	35
MW-5	2/5/92	42.10	20.93	21.17	0.00	78,000	7,900	5,000	2,900	1,800	--
	9/11/92	42.10	20.27	21.83	0.00	49,000	4,700	400	1,400	4,100	--
	12/22/92	42.10	19.99	22.11	0.00	34,000	8,600	340	2,200	4,800	--
	3/3/93	42.10	16.49	25.61	0.00	22,000	7,500	640	1,300	3,400	--
	6/23/93	42.10	17.02	25.08	0.00	15,000	5,800	120	1,100	2,100	--
	9/30/93	42.10	18.25	23.85	0.00	25,000	7,600	410	1,000	4,400	--
	2/6/94	42.10	18.26	23.84	0.00	23,000	6,000	180	2,000	5,900	--
	5/2/94	42.10	17.50	24.60	0.00	8,000	1,300	29	440	770	--
	7/1/94	42.10	17.79	24.31	0.00	10,000	1,700	97	600	1,400	--
	9/20/94	42.10	20.77	21.33	0.00	8,400	1,600	54	650	1,400	--
	12/5/94	42.10	18.02	24.08	0.00	10,000	1,800	<50	620	1,400	--
	3/10/95	42.10	14.93	27.17	0.00	--	--	--	--	--	--
	3/15/95	42.10	14.70	27.40	0.00	5,300	1,100	11	180	320	--
	9/23/96	42.10	15.19	26.91	0.00	9,800	1,800	11	470	510	100
	12/4/96	42.10	15.78	26.32	0.00	10,000	2,200	9	550	430	70
	4/8/97 ^{NP}	42.10	13.39	28.71	0.00	11,000	1,300	15	450	720	180
	6/30/97	42.10	14.83	27.27	0.00	3,800	500	<	75	84	<
	11/25/97	42.10	16.14	25.96	0.00	8,200	1,300	14	310	220	<
	6/1/98	42.10	10.10	32.00	0.00	3,600	290	12	52	52	81
	6/14/01	42.10	15.19	26.91	0.00	5,100	44	0.71	110	23	<5.0
11/7/01 ²	42.10	16.47	25.63	0.00	7,600	220	<5.0	550	30	<5.0	
1/30/02	42.10	14.27	27.83	0.00	6,200	180	<20	310	130	<20	
5/29/02	42.10	14.73	27.37	0.00	3,900	66	0.8	110	7.4	0.9	
MW-6	2/5/92	42.33	21.29	21.04	0.00	51,000	5,400	3,500	3,600	10,000	--
	9/11/92	42.33	20.56	21.77	0.00	24,000	2,500	830	1,400	2,300	--
	12/22/92	42.33	20.31	22.02	0.00	23,000	5,100	630	2,000	3,100	--
	3/3/93	42.33	16.83	25.50	0.00	18,000	4,400	820	1,400	2,400	--
	6/23/93	42.33	17.30	25.03	0.00	18,000	4,600	850	2,700	3,400	--
	9/30/93	42.33	19.05	23.28	0.00	--	--	--	--	--	--
	2/6/94	42.33	18.55	23.78	0.00	20,000	4,600	690	2,100	2,500	--
	5/2/94	42.33	17.74	24.59	0.00	5,300	930	54	610	240	--
	7/1/94	42.33	18.09	24.24	0.00	10,000	1,500	160	850	690	--
	9/20/94	42.33	21.05	21.28	0.00	11,000	2,000	140	1,200	760	--
	12/6/94	42.33	18.33	24.00	0.00	8,600	1,300	87	980	610	--
	3/10/95	42.33	15.35	26.98	0.00	--	--	--	--	--	--
	3/15/95	42.33	14.91	27.42	0.00	9,800	1,600	110	1,000	1,000	--
	9/23/96	42.33	15.50	26.83	0.00	12,000	520	55	930	350	51
	12/4/96	42.33	16.06	26.27	0.00	11,000	390	25	680	170	130
	4/8/97 ^{NP}	42.33	13.64	28.69	0.00	17,000	700	92	1,400	900	2,700
	6/30/97	42.33	15.08	27.25	0.00	11,000	270	37	590	450	<
	11/25/97	42.33	16.40	25.93	0.00	9,100	130	26	500	150	310
	6/1/98	42.33	10.31	32.02	0.00	14,000	190	50	680	400	160
	6/14/01	42.33	15.46	26.87	0.00	6,400	29	6.3	200	55	<20
11/7/01 ⁴	42.33	16.71	25.62	0.00	7,200	34	8.7	180	31	<5.0	
1/30/02	42.33	14.60	27.73	0.00	6,600	32	7.2	130	28	<5.0	
5/29/02	42.33	14.99	27.34	0.00	5,200	26	7.0	150	27	<5.0	
MW-7	6/23/93	42.70	17.87	24.83	0.00	29,000	4,200	71	4,400	5,600	--
	9/30/93	42.70	18.94	23.76	0.00	30,000	3,200	71	2,800	3,400	--
	2/6/94	42.70	19.11	23.64	0.06	--	--	--	--	--	--
	5/2/94	42.70	18.11	24.59	0.00	5,700	630	13	660	400	--
	7/1/94	42.70	18.72	23.98	0.00	3,100	180	99	160	520	--
	9/20/94	42.70	21.41	21.29	0.00	6,100	540	6	750	730	--

TABLE 3
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-7 (Cont.)	12/5/94	42.70	18.66	24.04	0.00	3,700	280	<10	430	350	--
	3/10/95	42.70	15.72	26.98	0.00	3,900	310	<10	540	540	--
	3/14/95	42.70	15.23	27.47	0.00	1,900	290	4	26	296	--
	9/23/96	42.70	15.94	26.76	0.00	6,300	76	<	420	270	15
	12/4/96	42.70	16.43	26.27	0.00	7,800	67	<	600	350	22
	4/8/97 ^{NP}	42.70	14.10	28.60	0.00	5,600	42	<	240	96	<
	6/30/97	42.70	15.51	27.19	0.00	5,500	<	79	<	44	280
	11/25/97	42.70	16.80	25.90	0.00	2,400	23	5.4	<	54	120
	6/1/98	42.70	10.31	32.39	0.00	14,000	190	50	680	400	160
	6/14/01	42.70	15.46	27.24	0.00	6,400	29	6	200	55	<20
	11/7/01 ²	42.70	--	--	--	--	--	--	--	--	--
	1/30/02	42.70	14.97	27.73	0.00	6,200	1.5	<0.5	96	4.6	<0.5
	5/29/02	42.70	15.49	27.21	0.00	1,600	1.0	<0.5	3.4	1.9	<0.5
MW-8*	6/23/93	97.61	17.64	79.97	0.00	350	43	9	35	67	--
	9/30/93	97.61	18.85	78.76	0.00	2,700	190	340	170	720	--
	2/6/94	97.61	18.91	78.70	0.00	<100	<1	1	1	2	--
	5/2/94	97.61	18.11	79.50	0.00	<100	<1	3	<1	7	--
	7/1/94	97.61	18.43	79.18	0.00	300	18	48	19	37	--
	9/20/94	97.61	21.43	76.18	0.00	<100	<1	<1	<1	<1	--
	12/5/94	97.61	18.72	78.89	0.00	<50	<0.5	<0.5	<0.5	<0.5	--
	3/10/94	97.61	18.69	78.92	0.00	--	--	--	--	--	--
	3/14/95	97.61	14.83	82.78	0.00	<50	<0.5	<0.5	<0.5	1	--
	9/23/96	97.61	15.83	81.78	0.00	<	<	<	<	<	<
Not Sampled, well inaccessible since 4th Quarter, 1996.											
MW-9*	6/23/93	95.41	15.94	79.47	0.00	45,000	14,000	1,200	2,800	12,000	--
	9/30/93	95.41	17.05	78.36	0.00	86,000	22,000	1,100	3,300	15,000	--
	2/6/94	95.41	17.07	78.34	0.00	43,000	10,000	460	2,100	7,500	--
	5/2/94	95.41	16.24	79.17	0.00	17,000	5,400	270	1,300	4,700	--
	7/1/94	95.41	16.59	78.82	0.00	10,000	2,100	120	450	1,300	--
	9/20/94	95.41	19.61	75.80	0.00	7,500	2,200	97	400	1,200	--
	12/5/94	95.41	16.85	78.56	0.00	10,000	2,700	130	530	1,600	--
	3/10/95	95.41	--	--	--	--	--	--	--	--	--
	3/14/95	95.41	14.18	81.23	0.00	18,000	5,900	270	1,200	3,680	--
Not Sampled, well inaccessible since 1st Quarter, 1995.											
MW-10*	6/23/93	97.11	17.39	79.72	0.00	35,000	980	640	3,500	12,000	--
	9/30/93	97.11	18.58	78.53	0.00	4,000	230	12	100	680	--
	2/6/94	97.11	18.61	78.50	0.00	2,000	69	12	220	120	--
	5/2/94	97.11	17.83	79.28	0.00	710	16	6	85	62	--
	7/1/94	97.11	18.17	78.94	0.00	2,000	52	43	120	210	--
	9/20/94	97.11	21.15	75.96	0.00	2,800	34	16	270	560	--
	12/5/94	97.11	18.43	78.68	0.00	2,700	30	13	260	430	--
	3/10/94	97.11	15.37	81.74	0.00	--	--	--	--	--	--
	3/14/94	97.11	15.93	81.18	0.00	1,400	18	6	200	239	--
	9/23/96	97.11	15.59	81.52	0.00	3,800	4	2.9	220	170	397
12/4/96	97.11	16.15	80.96	0.00	4,600	1.6	7.7	260	150	20	
Not Sampled, well inaccessible since 4th Quarter, 1996.											
MW-11*	2/10/95	92.68	11.80	80.88	0.00	7,000	140	22	600	1,000	--
	3/10/95	92.68	11.58	81.10	0.00	--	--	--	--	--	--
	3/14/95	92.68	13.96	78.72	0.00	6,000	200	17	750	1,276	--
	9/23/96	92.68	12.29	80.39	0.00	27,000	55	81	300	3,500	40
	12/4/96	92.68	--	--	--	--	--	--	--	--	--
	4/8/97	92.68	10.51	82.17	0.00	24,000	280	130	3,000	3,700	<
Not Sampled, well inaccessible since 2nd Quarter, 1997.											

TABLE 3
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-12	2/10/95	43.25	16.30	26.95	0.00	<50	<0.5	<0.5	<0.5	<0.5	--
	3/10/95	43.25	16.37	26.88	0.00	--	--	--	--	--	--
	3/14/95	43.25	15.69	27.56	0.00	<50	<0.5	<0.5	<0.5	0.9	--
	9/23/96	43.25	16.67	26.58	0.00	<	<	1.6	<	<	<
	12/14/96	43.25	17.16	26.09	0.00	<	3.2	<	1.9	3.4	<
	4/8/97 ^{NP}	43.25	14.88	28.37	0.00	<	<	<	<	<	<
	6/30/97	43.25	16.33	26.92	0.00	--	--	--	--	--	--
	11/25/97	43.25	17.61	25.64	0.00	--	--	--	--	--	--
	6/1/98	43.25	11.58	31.67	0.00	--	--	--	--	--	--
	6/14/01	43.25	16.62	26.63	0.00	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/7/01 ²	43.25	17.91	25.34	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/30/02	43.25	15.60	27.65	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/29/02	43.25	16.24	27.01	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-13	2/10/95	40.97	14.45	26.52	0.00	<50	<0.5	<0.5	<0.5	<0.5	--
	3/10/95	40.97	14.30	26.67	0.00	--	--	--	--	--	--
	3/14/95	40.97	15.81	25.16	0.00	<50	<0.5	<0.5	<0.5	1	--
	9/23/96	40.97	14.60	26.37	0.00	<	<	0.80	1	<	<
	12/4/96	40.97	--	--	--	--	--	--	--	--	--
	4/8/97 ^{NP}	40.97	12.75	28.22	0.00	<	<	<	<	<	<
	6/30/97	40.97	14.13	26.84	0.00	--	--	--	--	--	--
	11/25/97	40.97	15.48	25.49	0.00	--	--	--	--	--	--
	6/1/98	40.97	9.58	31.39	0.00	--	--	--	--	--	--
	6/14/01	40.97	14.51	26.46	0.00	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/7/01 ²	40.97	15.85	25.12	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/30/02	40.97	13.65	27.32	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/29/02	40.97	14.10	26.87	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-14	2/10/95	43.19	16.28	26.91	0.00	12,000	42	8	740	2,100	--
	3/10/95	43.19	16.33	26.86	0.00	--	--	--	--	--	--
	3/14/95	43.19	14.87	28.32	0.00	1,400	6	2	36	298	--
	9/23/96	43.19	16.67	26.52	0.00	6,400	2.8	<	690	96	9.6
	12/4/96	43.19	17.06	26.13	0.00	9,500	6.3	<	1,100	400	30
	4/8/97 ^{NP}	43.19	14.77	28.42	0.00	2,900	<	2.7	220	21	<
	6/30/97	43.19	16.22	26.97	0.00	74	1.3	<	0.51	0.68	<
	11/25/97	43.19	17.52	25.67	0.00	<	<	<	<	<	<
	6/1/98	43.19	11.46	31.73	0.00	<50	<0.5	<0.5	<0.5	<0.5	<5
	6/14/01	43.19	16.53	26.66	0.00	470	<0.5	<0.5	2.8	1	<5
	11/7/01 ²	43.19	17.84	25.35	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/30/02	43.19	15.55	27.64	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/29/02	43.19	16.14	27.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
EX-1	7/9/02	--	16.14	--	0.00	3,100	83	21	6.5	220	3.3

Notes: No known groundwater monitoring or sampling was conducted between June 1, 1998 and June 14, 2001 and June 14, 2001 and November 7, 2001. Wellhead elevations resurveyed on January 30, 2002 to USGS benchmark [elevation = 48.50 feet above sea level]

TOC = Top of casing referenced to benchmark.

DTW = Depth to water measured from top of casing.

GWE = Groundwater elevation as referenced to benchmark in feet above mean sea level.

TPHg = Total Petroleum Hydrocarbons as gasoline (EPA Method 8015).

B = Benzene (EPA Method 602 or 8020/1).

T = Toluene (EPA Method 602 or 8020/1).

E = Ethylbenzene (EPA Method 602 or 8020/1).

X = Total Xylenes (EPA Method 602 or 8020/1).

MTBE = Methyl t-Butyl Ether (EPA Method 8020 or 8021).

SHEEN = Discontinuous, non-measurable thickness of PSH.

PSH = Phase Separate Hydrocarbon thickness in feet.

µg/L = Micrograms per liter (~parts per billion).

TABLE 3
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
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- < = Sample reported as "not detected," in previous tables, reporting limit not known.
- ^{NP} = No-purge sample collection method implemented and continued, beginning April 8, 1997..
- ¹ = If PSH present, corrected GWE = TOC - Measured DTW + Corrected PSH Thickness (PSH Thickness x gas density [0.75 g/cc]).
- ² = All analysis performed by EPA Method 8260 beginning on November 7, 2001.
- * = Wellhead elevation not re-surveyed on January 30, 2002. Previous arbitrary benchmark used as elevation reference.
- = Not measured, surveyed, sampled, or analyzed.

TABLE 4
Groundwater Sample Analytical Results for Fuel Oxygenates
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	DIPE (µg/L)	ETBE (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-1	11/7/01	<5.0	<5.0	11	<5.0	<50
	1/30/02	<5.0	<5.0	14	<5.0	<50
	5/29/02	2.5	<2.0	12	<2.0	<20
MW-1A	11/7/01	<5.0	<5.0	<5.0	<5.0	<50
	1/30/02	<5.0	<5.0	<5.0	<5.0	<50
	5/29/02	<5.0	<5.0	<5.0	<5.0	<50
MW-2	11/7/01	<5.0	<5.0	21	<5.0	<50
	1/30/02	<5.0	<5.0	56	<5.0	<50
	5/29/02	<5.0	<5.0	32	<5.0	<50
MW-3	11/7/01	<5.0	<5.0	<5.0	<5.0	<50
	1/30/02	<5.0	<5.0	<5.0	<5.0	<50
	5/29/02	<5.0	<5.0	<5.0	<5.0	<50
MW-4	11/7/01	<5.0	<5.0	27	<5.0	<50
	1/30/02	<5.0	<5.0	42	<5.0	<50
	5/29/02	<20	<20	35	<20	<200
MW-5	11/7/01	<5.0	<5.0	<5.0	<5.0	<50
	1/30/02	<20	<20	<20	<20	<200
	5/29/02	2.0	<0.5	0.9	<0.5	<5.0
MW-6	11/7/01	<5.0	<5.0	<5.0	<5.0	<50
	1/30/02	<5.0	<5.0	<5.0	<5.0	<50
	5/29/02	<5.0	<5.0	<5.0	<5.0	<50
MW-7	11/7/01	--	--	--	--	--
	1/30/02	<5.0	<5.0	<5.0	<5.0	<50
	5/29/02	<0.5	<0.5	<0.5	<0.5	<5.0
MW-12	11/7/01	<0.5	<0.5	<0.5	<0.5	<5.0
	1/30/02	<0.5	<0.5	<0.5	<0.5	<5.0
	5/29/02	<0.5	<0.5	<0.5	<0.5	<5.0
MW-13	11/7/01	<0.5	<0.5	<0.5	<0.5	<5.0
	1/30/02	<0.5	<0.5	<0.5	<0.5	<5.0
	5/29/02	<0.5	<0.5	<0.5	<0.5	<5.0
MW-14	11/7/01	<0.5	<0.5	<0.5	<0.5	<5.0
	1/30/02	<0.5	<0.5	<0.5	<0.5	<5.0
	5/29/02	<0.5	<0.5	<0.5	<0.5	<5.0
EX-1	7/9/02	0.6	<0.5	3.3	<0.5	<5.0

Notes: Analytical results above the laboratory detection limits are in boldface font.

Laboratory results by EPA Method 8260.

DIPE = Di-isopropyl Ether

ETBE = Ethyl tert-Butyl Ether

MTBE = Methyl-tert-Butyl Ether (See Table 1 for historic results)

TAME = tert-Amyl Methyl Ether

TBA = tert-Butanol

µg/L = micrograms per liter (~parts per billion)

< = Analytical results below the given laboratory detection limit.

-- = Not sampled or analyzed.

TABLE 5
ADDITIONAL SITE ASSESSMENT
GROUNDWATER MONITOR AND REMEDIATION WELLS
SOIL SAMPLE ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS AND FUEL OXYGENATES
FORMER E-Z SERVE LOCATION NO. 100877
525 WEST A STREET, CALIFORNIA

Soil Sample Identification	Sampling Date	TPHg EPA 8260B (mg/kg)	Benzene EPA 8260B (µg/kg)	Toluene EPA 8260B (µg/kg)	Ethylbenzene EPA 8260B (µg/kg)	Total Xylenes EPA 8260B (µg/kg)	TAME EPA 8260B (µg/kg)	TBA EPA 8260B (µg/kg)	DIPE EPA 8260B (µg/kg)	ETBE EPA 8260B (µg/kg)	MTBE EPA 8260B (µg/kg)
VEAS-1/5'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-1/10'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-1/15'	6/20/2002	69	<0.005	<0.005	0.83	3.0	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-1/20'	6/20/2002	670	0.7	<0.5	8.8	40	<0.5	<5.0	<0.5	<0.5	<0.5
VEAS-1/25'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-1/30'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-2/5'	6/20/2002	<0.5	<0.005	<0.005	0.005	0.017	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-2/10'	6/20/2002	<0.5	<0.005	<0.005	<0.005	0.010	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-2/15'	6/20/2002	2.0	0.012	<0.005	0.020	0.013	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-2/20'	6/20/2002	6.2	0.062	<0.005	0.086	0.10	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-2/25'	6/20/2002	1.9	<0.005	<0.005	0.016	0.026	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-2/30'	6/20/2002	<0.5	<0.005	<0.005	<0.005	0.006	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-3/5'	6/20/2002	<0.5	<0.005	<0.005	<0.005	0.007	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-3/10'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-3/15'	6/20/2002	1.8	<0.005	<0.005	0.007	0.008	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-3/20'	6/20/2002	1.7	0.010	<0.005	0.036	0.024	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-3/25'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
VEAS-3/30'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/10'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/15'	6/20/2002	<0.5	0.006	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/20'	6/20/2002	100	<0.1	<0.1	0.7	1.6	<0.1	<1.0	<0.1	<0.1	<0.1
EX-1/25'	6/20/2002	1.1	<0.005	<0.005	0.009	0.017	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/30'	6/20/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/35'	6/20/2002	<0.5	<0.005	<0.005	<0.005	0.007	<0.005	<0.05	<0.005	<0.005	<0.005

Notes

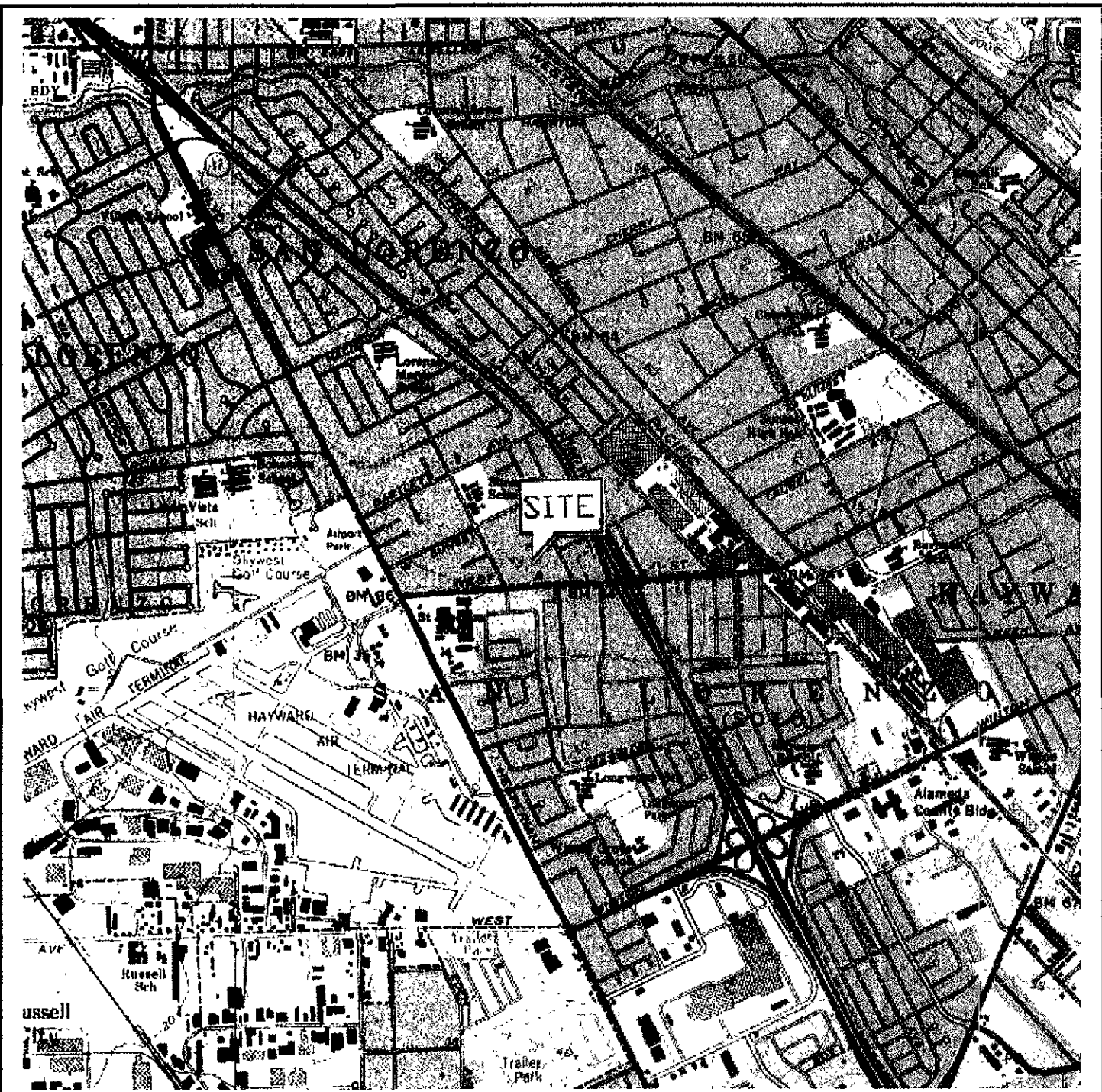
TPHg Total petroleum hydrocarbons characterized as gasoline, analyzed by EPA method 8260B

MTBE Methyl-tertiary-butyl ether, analyzed by EPA 8260B

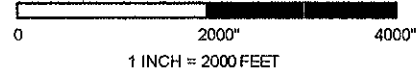
<# Less than the detection limit shown

mg/kg milligrams per kilograms (parts per million)

FIGURES



REFERENCE: MAPTECH TERRAIN NAVIGATOR 2001, CALIFORNIA.



VICINITY MAP

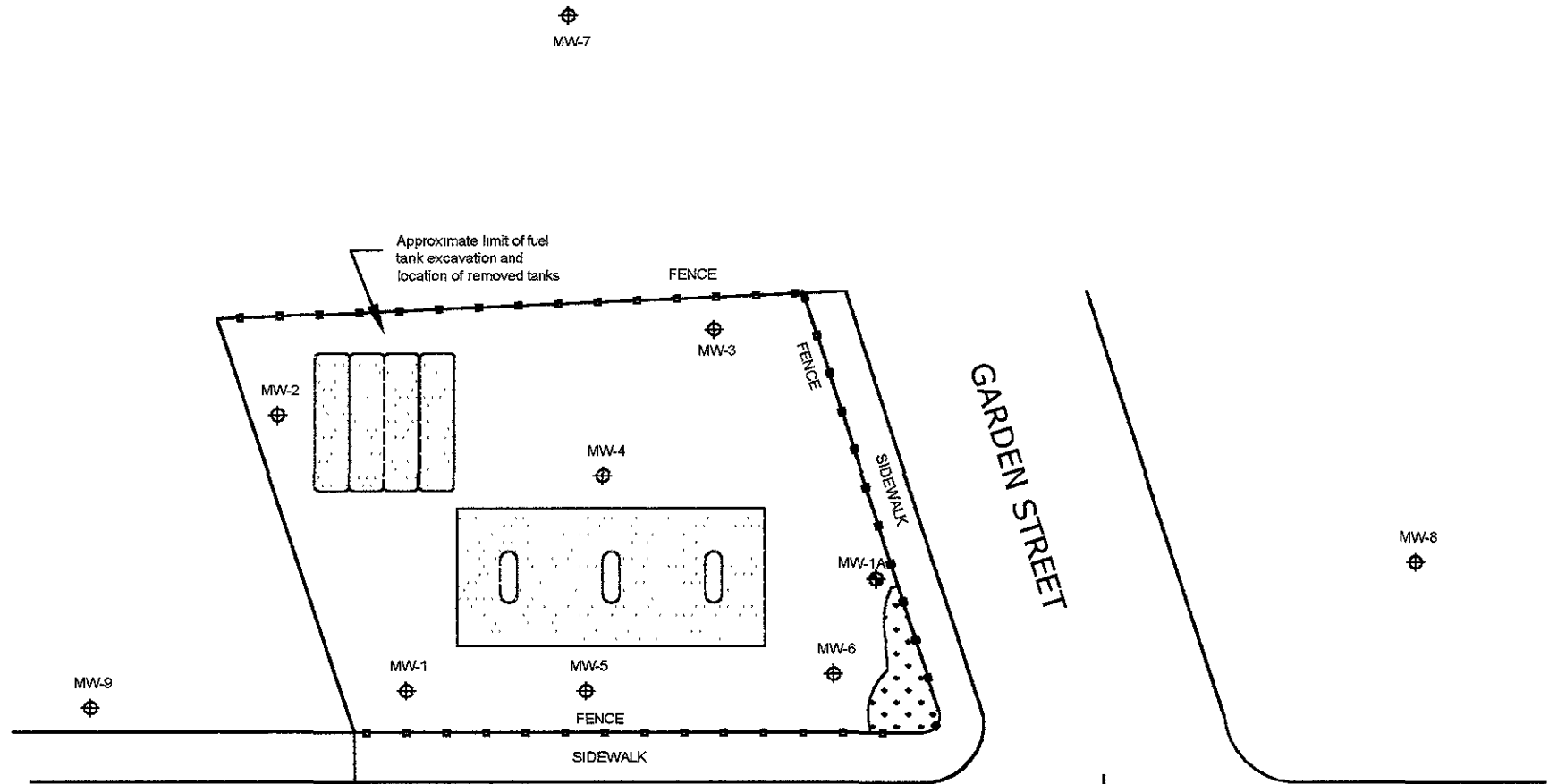
Former E-Z Serve Location No. 100877
 525 West A Street
 Hayward, California

PROJECT NO. 43.25827.0024 FIGURE 1

FILE NO. h:projects/ezserve/100877/fig1

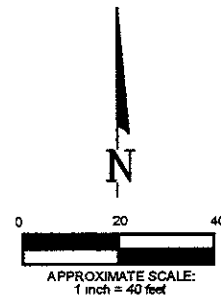


9620 Chesapeake Drive, Suite 203
 San Diego, California 92123



LEGEND:

- ⊕ APPROXIMATE LOCATION OF GROUNDWATER MONITOR WELLS INSTALLED BY ASSOCIATED SOILS ANALYSIS, INC (MW-1 THROUGH MW-6 DRILLED ON JANUARY 28-29, 1992; MW-7 THROUGH MW-10 DRILLED JUNE 21-22, 1993)
- ⊕ APPROXIMATE LOCATION OF GROUNDWATER MONITOR WELL INSTALLED BY CONVERSE ENVIRONMENTAL CONSULTANTS OF CALIFORNIA
- APPROXIMATE LOCATION OF PARTIALLY REMOVED FUEL ISLANDS BENEATH CANOPY



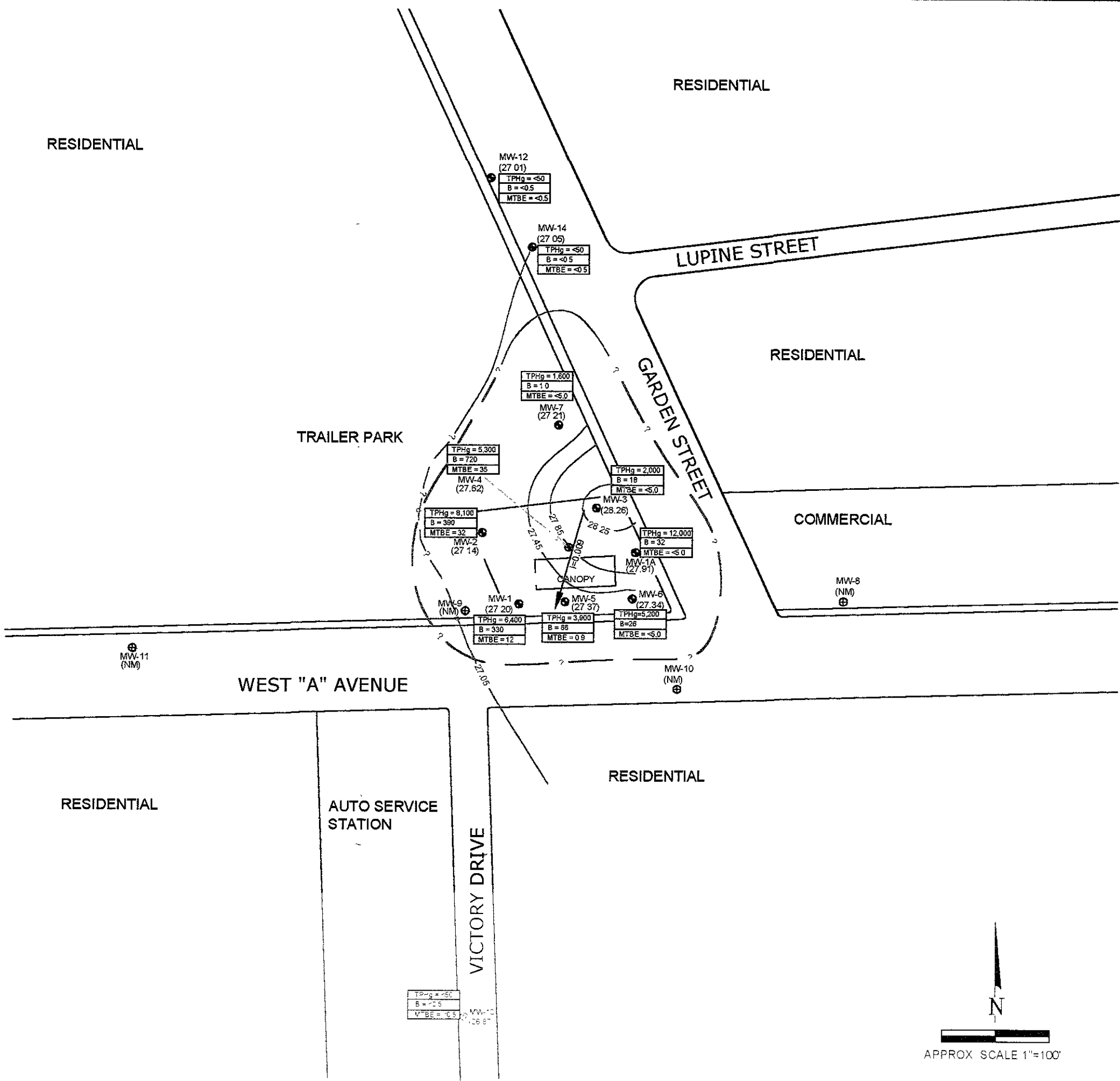
WEST "A" AVENUE

**PREVIOUS SITE INVESTIGATION MAP
GROUNDWATER MONITOR WELLS
(ASA, JANUARY 1992/ JUNE 1993)
Former EZ-Serve Location No. 100877
525 West A Street
Hayward, California**

PROJECT NO. 43.25827.0024 FIGURE 2

FILE NO. h:\projects\ezserve\100877\fig2

VATC ASSOCIATES INC.
9620 Chesapeake Drive, Suite 203
San Diego, California 92123



LEGEND

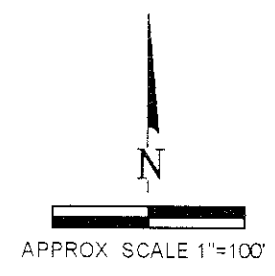
- MW-1 GROUNDWATER MONITOR WELL LOCATION
- (27.60) APPROXIMATE GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL)
- TPHg < 5.0
B < 0.5
MTBE < 0.5 CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (TPHg), BENZENE (B), AND METHYL TERT-BUTYL ETHER (MTBE) IN MICROGRAMS PER LITER (ug/L).
- 0.009 APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (i) IN LINEAR FEET/VERTICAL FEET
- 28.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
- NM NOT MEASURED, WELLHEAD NOT LOCATED TO RESURVEY, LOCATION PLOTS ARE APPROXIMATE
- ESTIMATED AERIAL EXTENT OF TPHg IMPACTED SOIL SOLID WHERE INFERRED, QUERIED WHERE UNKNOWN

NOTE. CONTOUR LINES GENERATED BY SURFER 7, GOLDEN SOFTWARE INC., AUGUST 1999

GROUNDWATER SUMMARY MAP
MAY 29, 2002
 Former E-Z Serve Location No. 100877
 525 West A Street
 Hayward, California

PROJECT NO. 43.25827.0024 FIGURE 3

FILE NO. h:projects/ezserve/100877/fig3 (6-18-02)

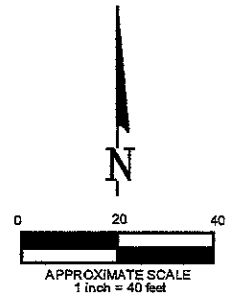
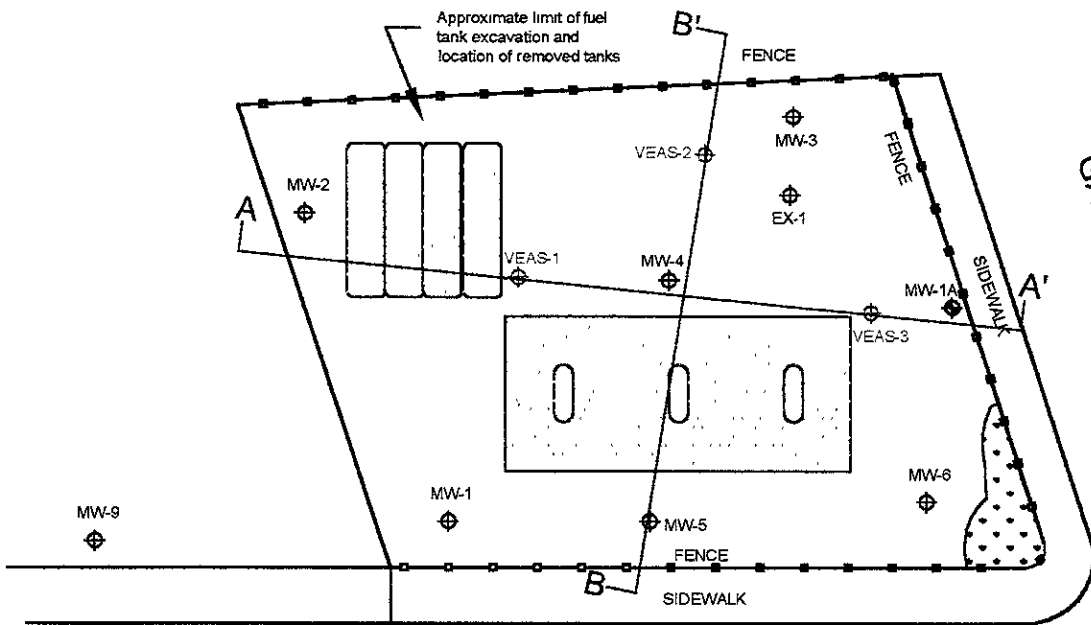


V&A ASSOCIATES INC.
 9620 Chesapeake Drive, Suite 203
 San Diego, California 92123

MW-7

LEGEND

- ⊕ MW-1 APPROXIMATE LOCATION OF GROUNDWATER MONITOR WELLS INSTALLED BY ASSOCIATED SOILS ANALYSIS, INC (MW-1 THROUGH MW-6 DRILLED ON JANUARY 28-29, 1992; MW-7 THROUGH MW-10 DRILLED JUNE 21-22, 1993)
- ⊕ MW-1A APPROXIMATE LOCATION OF GROUNDWATER MONITOR WELL INSTALLED BY CONVERSE ENVIRONMENTAL CONSULTANTS OF CALIFORNIA
- ⊕ EX-1 GROUNDWATER EXTRACTION WELL LOCATION (ATC, 2002)
- ⊕ VEAS-3 REMEDIATION WELL LOCATION (ATC, 2002)
- APPROXIMATE LOCATION OF PARTIALLY REMOVED FUEL ISLANDS BENEATH CANOPY
- A-A' CROSS-SECTION LINES



SITE PLAN WITH GEOLOGIC CROSS-SECTION LINES

Former EZ-Serve Location No. 100877
525 West A Street
Hayward, California

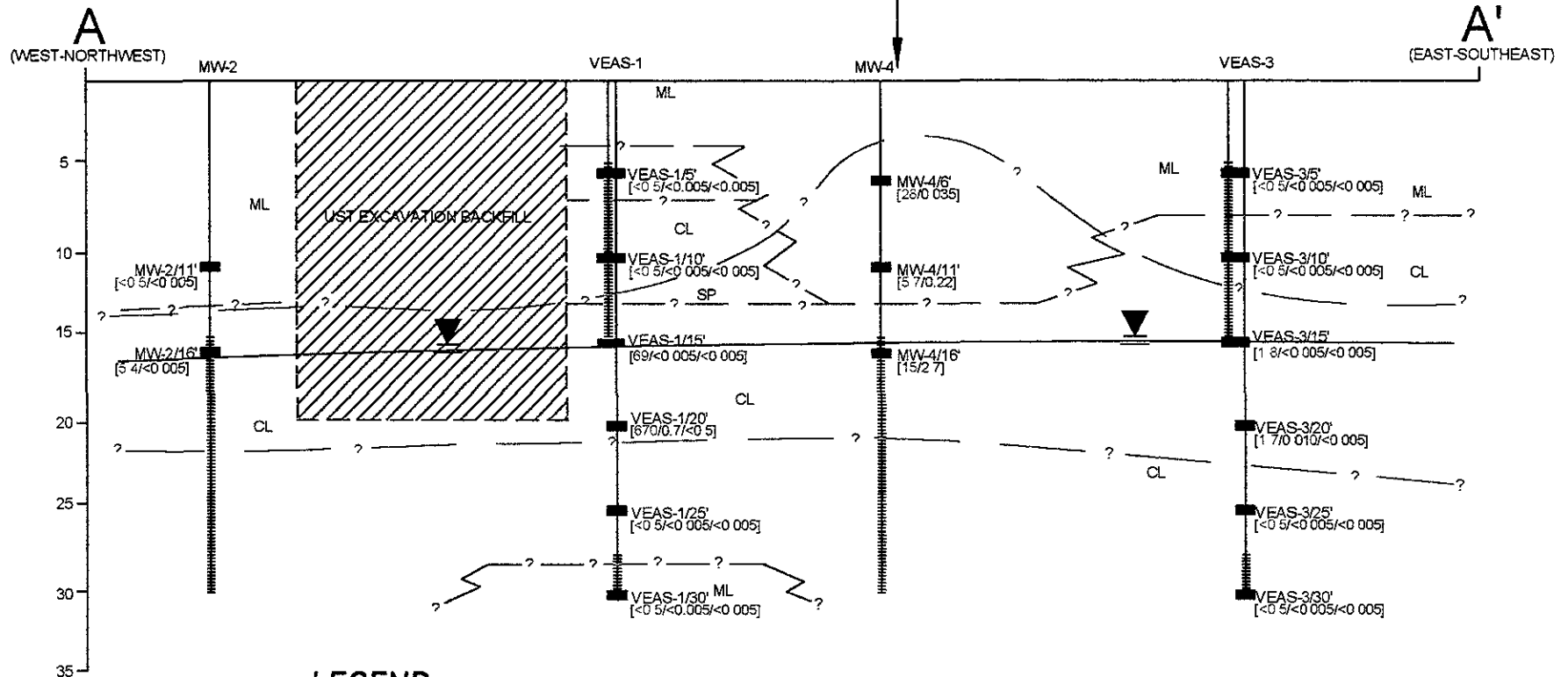
PROJECT NO. 43.25827.0024 FIGURE 4

FILE NO. h:projects/ezserve/100877/fig4

VATC
ASSOCIATES INC.

9620 Chesapeake Drive, Suite 203
San Diego, California 92123

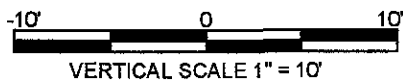
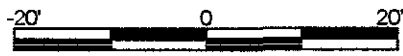
INTERSECTION OF CROSS-SECTION B-B'



LEGEND

- ? — ESTIMATED EXTENT OF TPHg IMPACTED SOIL
- 11' DEPTH OF SOIL SAMPLE LOCATION IN FEET BELOW GROUND SURFACE
- TPHg - TOTAL PETROLEUM HYDROCARBONS AS GASOLINE EPA METHOD 8260
- B - BENZENE EPA METHOD 8260
- MTBE - METHYL TERTIARY BUTYL ETHER BY EPA 8260 METHOD
- <# DENOTES THAT THE COMPOUND WAS NOT DETECTED AT A CONCENTRATION EXCEEDING THE LABORATORY DETECTION LIMIT SHOWN

- SP** POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.
- ML** INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY.
- CL** INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN.
- ▼** APPROXIMATE DEPTH OF GROUNDWATER



GEOLOGIC CROSS-SECTION A - A'

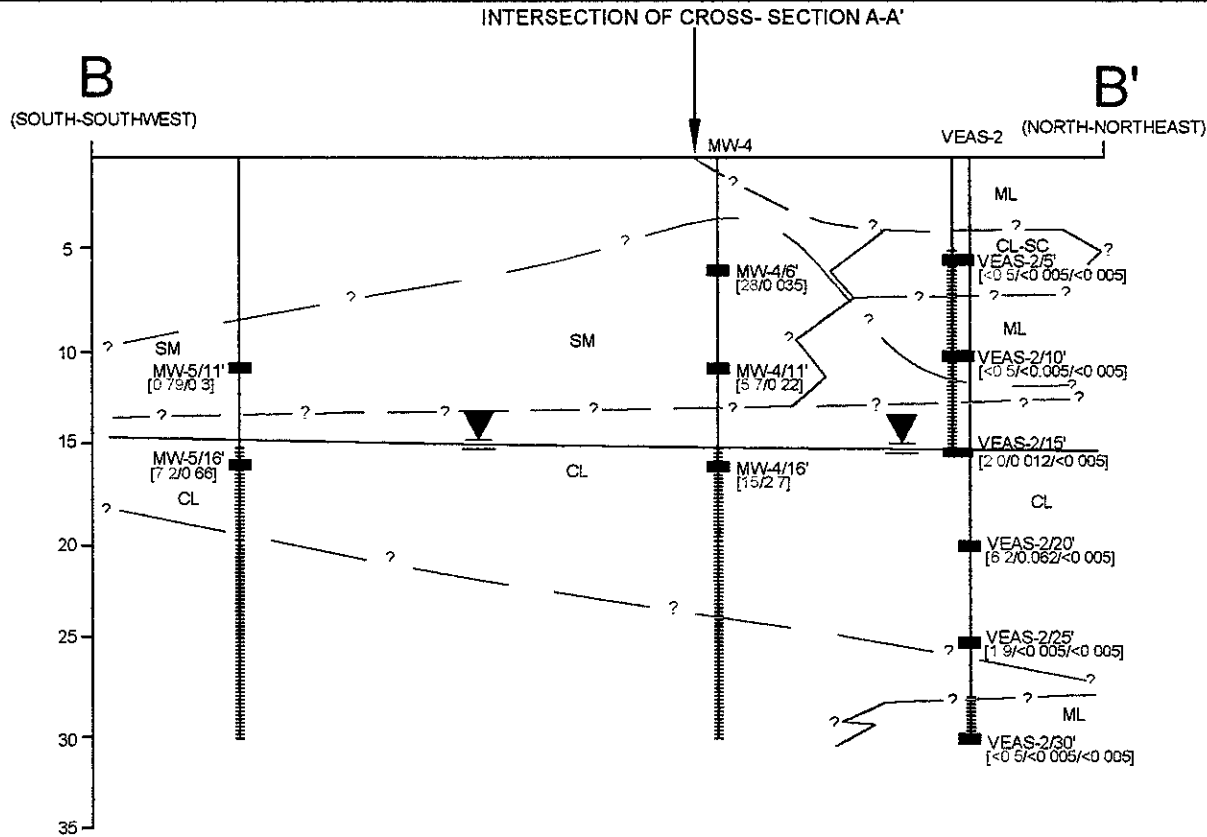
FORMER E-Z SERVE LOCATION No. 100877
 525 WEST A STREET
 HAYWARD, CALIFORNIA 92231

PROJECT NO. 43.25827.0024
 FILE NO. h:\projects\ezserve\100877\Fig5

FIGURE 5



9620 Chesapeake Drive, Suite 203
 San Diego, California 92123



LEGEND

—?— ESTIMATED EXTENT OF TPHg IMPACTED SOIL

11' DEPTH OF SOIL SAMPLE LOCATION IN FEET BELOW GROUND SURFACE

TPHg - TOTAL PETROLEUM HYDROCARBONS AS GASOLINE EPA METHOD 8260
B - BENZENE EPA METHOD 8260
MTBE - METHYL TERTIARY BUTYL ETHER BY EPA 8260 METHOD

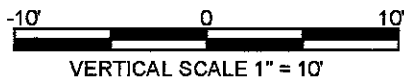
<# DENOTES THAT THE COMPOUND WAS NOT DETECTED AT A CONCENTRATION EXCEEDING THE LABORATORY DETECTION LIMIT SHOWN

SM SILTY SANDS, SAND-SILT MIXTURES, PLASTIC FINES.

ML INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY

CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN.

▼ APPROXIMATE DEPTH OF GROUNDWATER



GEOLOGIC CROSS-SECTION B - B'

FORMER E-Z SERVE LOCATION No. 100877
525 WEST A STREET
HAYWARD, CALIFORNIA 92231

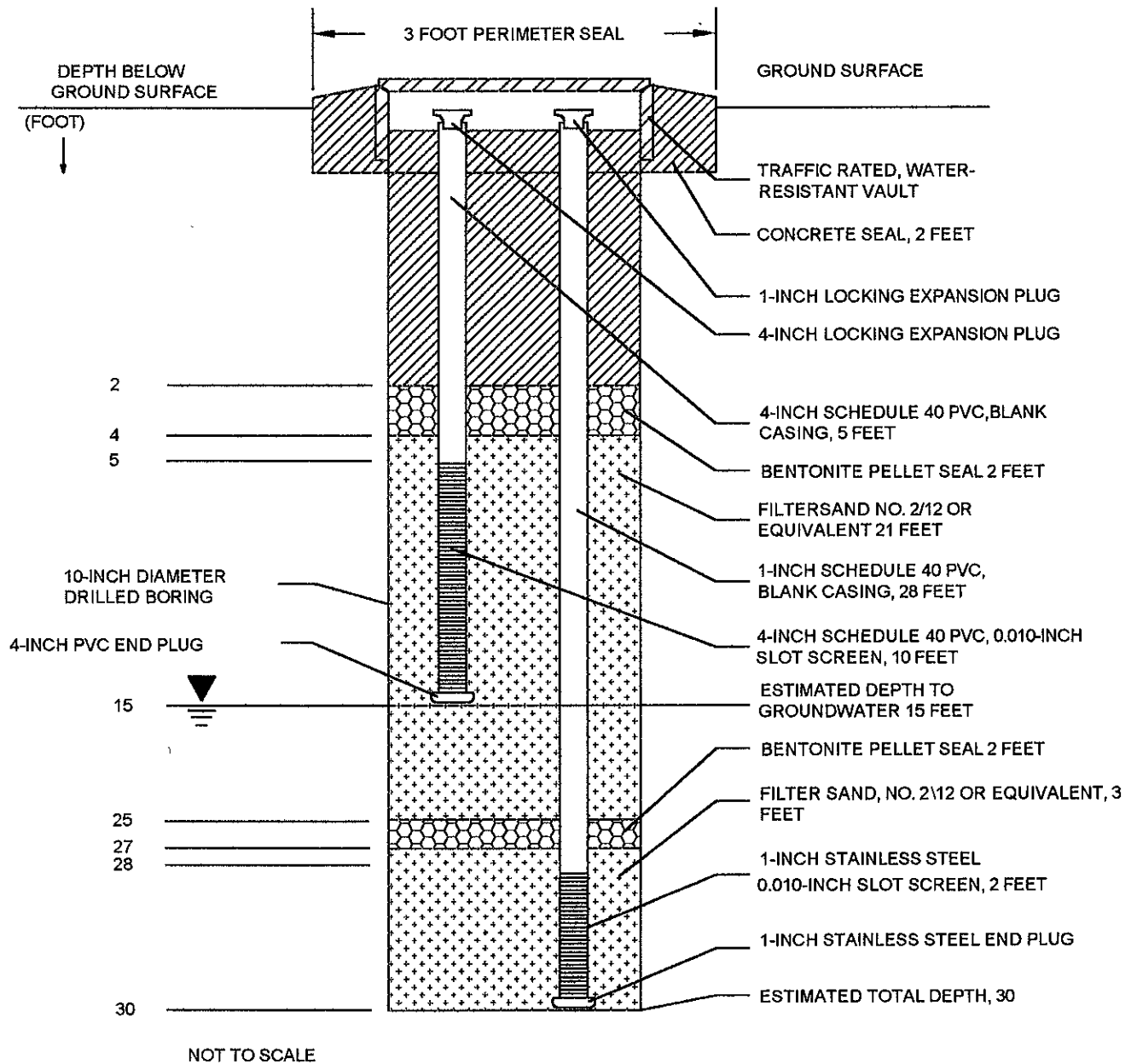
PROJECT NO. 43.25827.0024

FILE NO. I:\projects\ezserve\100877\Fig6

FIGURE 6



9620 Chesapeake Drive, Suite 203
San Diego, California 92123



**REMEDICATION WELL
(VEAS-1 THROUGH VEAS-3)
CONSTRUCTION DETAIL**
Former EZ-Serve Location No. 100877
525 West A Street
Hayward, California

PROJECT NO. 43.25827.0024

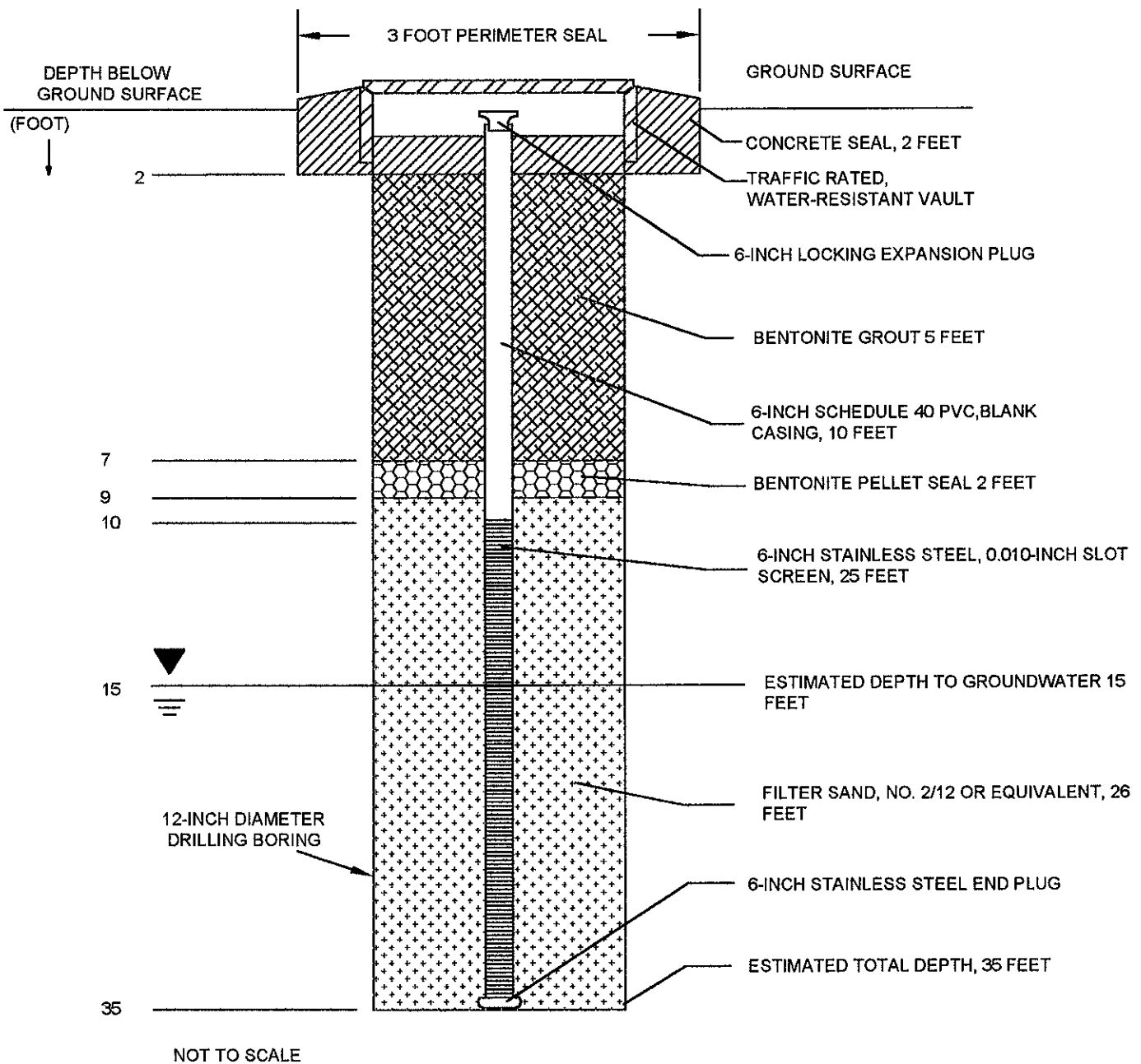
FIGURE 7

FILE NO.

h:projects/ezserve/100877/fig7



9620 Chesapeake Drive, Suite 203
San Diego, California 92123



**REMEDICATION WELL
(EX-1)
CONSTRUCTION DETAIL**
Former EZ-Serve Location No. 100877
525 West A Street
Hayward, California

PROJECT NO. 43.25827.0024

FIGURE 8

FILE NO. h:projects/ezserve/100877/fig8



8620 Chesapeake Drive, Suite 203
San Diego, California 92123

APPENDICES

APPENDIX A

REGULATORY AGENCY CORRESPONDENCE –

**ALAMEDA COUNTY HEALTH CARE SERVICES,
WORKPLAN APPROVAL LETTER, MARCH 13, 2002**

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

STID 3580

March 11, 2002

Mr. Andrew Long
Restructure Petroleum Marketing Services, RPMS
205 South Hoover Blvd. Suite 101
Tampa Florida 33609

RE: Former EZ Serve Site at 525 West A Street, Hayward, CA

Dear Mr. Long:

This office is in receipt of "Workplan for Remediation well Installation and Feasibility studies", dated December 21, 2001 submitted by Mr. Michael T. Davis of ATC Associates Inc. regarding the above referenced site.

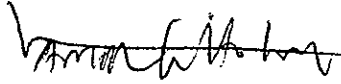
Per my discussion with Mr. Vogelpohl of ATC associate, performance of pilot studies have been recommended to determine the most appropriate remediation alternative including installment of vapor extraction/air sparge wells and groundwater extraction wells. Furthermore 8-hour vapor extraction pilot test, 8-hour air sparge test, and 24-hour constant rate discharge aquifer tests will be performed and incorporated in an Interim Remedial Action, IRA, plan.

Additionally, a risk assessment is to be performed, using previous and newly gained data from the above work, in order to establish clean up level and to submit the risk assessment along with results of the previously approved workplan regarding the above referenced site. As you are aware, the risk assessment had been requested by Madhulla Logan, formerly of our office, as an addendum to the previously submitted risk assessment dated May 9th, 1995 by Brown and Caldwell Consultants. However, per my discussion with Mr. Vogelpohl of ATC Associates Inc., you may postpone preparation of the risk assessment till the concentrations of the constituents in the plume have reduced significantly in future.

Please call me at (510) 567-6876, if you have any questions.

*Notified of drilling
6/13/02 / 0936 VM*

Sincerely,

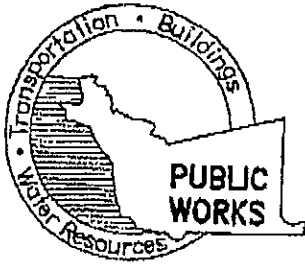


Amir K. Gholami, REHS
Hazardous Materials Specialist

✓C: Mr. Greg Vogelpohl, ATC Associates Inc. 9620 Chesapeake Drive, Suite 203, San Diego,
CA 92123
Mr. Hugh Murphy, City of Hayward Hazardous Material Office, 777 B Street, Hayward, CA
94541
Files

APPENDIX B

**COUNTY OF ALAMEDA, APPROVED DRILLING
PERMIT APPLICATION**



COUNTY OF ALAMEDA
 PUBLIC WORKS AGENCY
 WATER RESOURCES SECTION
 399 Elmhurst Street, Hayward, CA 94544-1395

FAX TRANSMITTAL

TO: *ATC Associates, Inc*
 Attn: *Michael Davis*

DATE: *5-28-02*

FAX NO.: *(858) 569-0695*
 TRANSMITTING THE FOLLOWING:

SHEETS	DATED	TITLE/DESCRIPTION
<i>4</i>		<i>DPA - W02-0563-0566</i>

(5) TOTAL PAGES INCLUDING THIS SHEET.

FROM WATER RESOURCES SECTION

NAME: JAMES YOO

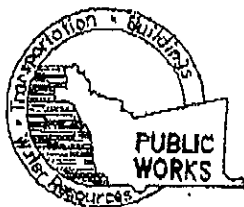
TEL: (510) 670-6633

FAX: (510) 782-1939

E-MAIL: jamesy@acpwa.mail.co.alameda.ca.us

IF YOU EXPERIENCE PROBLEMS WITH THIS TRANSMISSION, PLEASE CALL ME.

REMARKS:



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

399 ELMHURST ST. HAYWARD CA, 94544-1393

PHONE (510) 670-6633 James Yoo

FAX (510)782-1939

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 524 West A Street
Hayward Calif. 95073

PERMIT NUMBER WD2-0563
WELL NUMBER _____
APN _____

CLIENT

Name Resstructure Petroleum Marketing Services of California, Inc.
Address 205 South Hoover Blvd. Phone (813)986-2443
City Titusville, Florida Zip 32609

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permits void if project not begun within 90 days of approval date.

APPLICANT

Name ATC Associates Inc. Fax (358) 569-0695
Address 9620 Chicapeake Dr. #203 Phone (858) 569-0692
City San Diego CA Zip 92123

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring <u>Constructive</u>	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S NAME Bat Area Exploration

DRILLER'S LICENSE NO. C-57 License No. 322125

WELL PROJECTS

Drill Hole Diameter <u>10</u> in.	Maximum
Casing Diameter <u>6</u> in.	Depth <u>35</u> ft.
Surface Seal Depth <u>9</u> ft.	Owner's Well Number <u>FX-1</u>

GEOTECHNICAL PROJECTS

Number of Borings _____	Maximum
Hole Diameter _____ in.	Depth _____ ft.

ESTIMATED STARTING DATE June 10, 2002

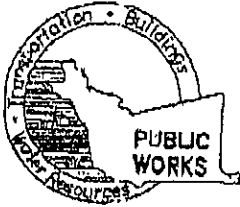
ESTIMATED COMPLETION DATE June 11, 2002

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-58.

APPLICANT'S SIGNATURE Michael Davis DATE 5/21/02

PLEASE PRINT NAME Michael Davis Rev. 5-13-00

notified
6/4/02
6/13/02
 APPROVED
 DATE 5-28-02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 870-6633 James Yoo
FAX (510)782-1939

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 523 West A Street
Hayward Calif. 95073

PERMIT NUMBER W02-0564
WELL NUMBER _____
APN _____

CLIENT

Name Restructure Petroleum Marketing Services of California, Inc.
Address 205 South Hoover Blvd. Phone (813)986-2443
City Tampa, Florida Zip 33609

APPLICANT

Name ATC Associates Inc. Fax (858) 569-0695
Address 9620 Chesapeake Dr. #202 Phone (858) 569-0692
City San Diego, CA Zip 92122

TYPE OF PROJECT

Well Construction Geotechnical Investigation
Cathodic Protection General
Water Supply Contamination
Monitoring - Extensive Well Destruction

PROPOSED WATER SUPPLY WELL USE

New Domestic Replacement Domestic
Municipal Irrigation
Industrial Other

DRILLING METHOD:

Mud Rotary Air Rotary Auger
Cable Other

DRILLER'S NAME Pat Area Exploration

DRILLER'S LICENSE NO. C-57 License No. 522125

WELL PROJECTS

Drill Hole Diameter 10 in. Maximum
Casing Diameter 1 1/4 in. Depth 30 ft.
Surface Seal Depth 13 1/4 ft. Owner's Well Number VEAS-1

GEOTECHNICAL PROJECTS

Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE June 10, 2002
ESTIMATED COMPLETION DATE June 11, 2002

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Michael Davis DATE 5/21/02

PLEASE PRINT NAME Michael Davis Rev. 5-13 00

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

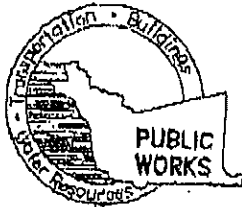
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED

DATE 5-28-02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

399 ELMHURST ST. HAYWARD CA. 94544-1393

PHONE (510) 670 6633 James You

FAX (510) 782-1939

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 523 West A Street
Hayward Calif. 95073

PERMIT NUMBER W02-02565
WELL NUMBER _____
APN _____

CLIENT
Name Resource Petroleum Marketing Services of California, Inc.
Address 205 South Hoover Blvd. Phone (813) 986-2443
City Tampa, Florida Zip 33609

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT
Name ATG Associates, Inc. Fax (858) 569-0695
Address 2620 Chesapeake Dr. #203 Phone (858) 569-0692
City San Diego, CA Zip 92123

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

TYPE OF PROJECT

- | | | | |
|------------------------------|-------------------------------------|----------------------------|--------------------------|
| Well Construction | <input type="checkbox"/> | Geotechnical Investigation | <input type="checkbox"/> |
| Cathodic Protection | <input type="checkbox"/> | General | <input type="checkbox"/> |
| Water Supply | <input type="checkbox"/> | Contamination | <input type="checkbox"/> |
| Monitoring <u>Extractive</u> | <input checked="" type="checkbox"/> | Well Destruction | <input type="checkbox"/> |

PROPOSED WATER SUPPLY WELL USE

- | | | | |
|--------------|--------------------------|----------------------|--------------------------|
| New Domestic | <input type="checkbox"/> | Replacement Domestic | <input type="checkbox"/> |
| Municipal | <input type="checkbox"/> | Irrigation | <input type="checkbox"/> |
| Industrial | <input type="checkbox"/> | Other | <input type="checkbox"/> |

DRILLING METHOD:

- | | | | | | |
|------------|--------------------------|------------|--------------------------|-------|--------------------------|
| Mud Rotary | <input type="checkbox"/> | Air Rotary | <input type="checkbox"/> | Auger | <input type="checkbox"/> |
| Cable | <input type="checkbox"/> | Other | <input type="checkbox"/> | | |

DRILLER'S NAME Pat Area Exploration

DRILLER'S LICENSE NO. C-57 License No. 522124

WELL PROJECTS

Drill Hole Diameter 10 in. Maximum Depth 30 ft.
Casing Diameter 1 1/4 in. Owner's Well Number: VEAS-2
Surface Seal Depth 10.74 ft.

GEOTECHNICAL PROJECTS

Number of Borings _____ Maximum Hole Diameter _____ in. Depth _____ ft.

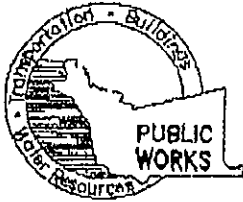
ESTIMATED STARTING DATE June 10, 2002
ESTIMATED COMPLETION DATE June 11, 2002

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Michael Davis DATE 5/21/02

PLEASE PRINT NAME Michael Davis Rev. 5 13 00

APPROVED [Signature] DATE 5-28-02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
 399 ELMHURST ST. HAYWARD CA. 94544-1395
 PHONE (510) 670 6633 Janet Yoo
 FAX (510)782-1939
 APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
 DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 525 West A Street
Hayward Calif. 94607

PERMIT NUMBER WD2-0566
 WELL NUMBER _____
 APN _____

PERMIT CONDITIONS
 Circled Permit Requirements Apply

CLIENT
 Name Estimating Petroleum Marketing Services of California, Inc.
 Address 201 South Hoover Blvd. Phone (813)986-2443
 City Tampa, Florida Zip 33602

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
 Name ATC Associates Inc. Fax (858) 569-0695
 Address 9520 Cheapeake Dr. #203 Phone (858) 569-0692
 City San Diego, CA Zip 92123

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring - Exhaust	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted purfings.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

DRILLER'S NAME Rat Area Exploration

F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

DRILLER'S LICENSE NO. C-57 Licence No. 522125

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

WELL PROJECTS

Drill Hole Diameter	<u>10</u> in.	Maximum	
Casing Diameter	<u>1 1/4</u> in.	Depth	<u>30</u> ft.
Surface Seal Depth	<u>12 1/4</u> ft.	Owner's Well Number	<u>VEHS-3</u>

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum	_____ ft.
Hole Diameter	_____ in.	Depth	_____ ft.

ESTIMATED STARTING DATE June 10, 2002
 ESTIMATED COMPLETION DATE January, 2002

APPROVED [Signature] DATE 5-28-02

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [Signature] DATE 5/28/02

PLEASE PRINT NAME Michael Davis Rev. 5 12 00

APPENDIX C

STANDARD OPERATING PROCEDURES—

**SOIL BOREHOLE DRILLING, REMEDIATION WELL INSTALLATION,
AND SOIL SAMPLING**

FIELD SOIL VAPOR MONITORING

GROUNDWATER MONITOR WELL PURGING AND SAMPLING

STANDARD OPERATING PROCEDURE

SOIL BOREHOLE DRILLING, REMEDIATION WELL INSTALLATION, AND SOIL SAMPLING

Drilling and Soil Sampling

Permits, Site Safety Plan, Utility Clearance

ATC Associates Inc. (ATC) obtains all the required permits, unless otherwise contractually directed. ATC prepares a site specific Site Safety Plan detailing site hazards, site safety and control, decontamination procedures, and emergency response procedures to be employed throughout the defined phase of work. At least 48 hours prior to drilling, Underground Service Alert (USA) or an equivalent agency is notified of the planned work. ATC attempts to locate all underground and aboveground utilities by site inspection (in conjunction with its' subcontractors and knowledgeable site managers, if available), and review of site as-built drawings. ATC may employ a private, professional utility locator to refine the site utility inspection.

Drilling Equipment

All soil borings are drilled using a truck-mounted hollow-stem auger drill rig, unless site conditions warrant a different drilling method. Subsurface conditions permitting, the first five feet of each boring is advanced using a hand-auger or post-hole digger. All drilling equipment is inspected daily and maintained in safe working condition by the operator. All down-hole drilling equipment is steam cleaned prior to arriving on site. Working components of the drill rig near the borehole, as well as augers and drill rods are thoroughly steam cleaned between each boring location. All ATC drilling and sampling methods are consistent with ASTM Method D-1452-80 and local, state and federal regulations.

Soil Sampling and Lithologic Description

Whenever possible and approved by the appropriate regulatory agency, the first ATC boring to be drilled at a site is continuously cored to obtain a complete lithologic description. Otherwise, soil samples are typically collected every 5 feet to the total depth explored, using brass tubes fitted in a California-modified split-spoon sampler. If copper or zinc contamination is the subject of the investigation, stainless steel liners are used instead of brass. Additional soil samples may be collected based upon significant changes in lithology or in areas of obvious soil contamination. During soil sample collection, the split spoon sampler is driven 18 to 24 inches past the lead auger by a 140-pound hammer falling a minimum of 30 inches. The number of blows necessary to drive the sampler and the amount of soil recovered is recorded on the Field Exploratory Soil Boring Log. The soil sampler and liners are cleaned with an Alconox[®] solution and rinsed with tap water prior to each sampling event. New liners are used whenever a soil sample may be retained for laboratory analysis.

Soil samples selected for laboratory analysis are sealed on both ends with Teflon[®] tape and plastic end caps. The samples are labeled, documented on a chain-of-custody form and placed in a cooler for transport to a state-certified analytical laboratory. Soil contained in remaining liners is removed for lithologic descriptions (according to the Unified Soil Classification System). Additional soil is screened for organic vapors by placing approximately 30 grams of soil in a sealed plastic bag or a glass jar sealed with aluminum foil. The bag or jar is left undisturbed for approximately 15 minutes, in the sun if possible. The headspace in the bag is accessed in a manner to minimize entry of outside air, and is tested for total organic vapor using a calibrated photo ionization detector (PID). The results of the field screening are noted with the lithologic descriptions on the Field Exploratory Soil Boring Log.

On encountering an impermeable (clayey) layer three feet or more in thickness below a saturated permeable layer, where the impermeable layer is considered to be a possible confining layer for an underlying aquifer, drilling is halted until a decision to proceed is obtained from the project manager. This process minimizes the chance of introducing contamination to an underlying, clean aquifer.

Soil Waste Management

Soil cuttings are stockpiled on and covered with plastic sheeting to control runoff, or contained in 55-gallon D.O.T.-approved drums on site. Waste soil is sampled to chemically profile it for disposal, and hauled by a licensed waste hauler to an appropriate landfill or certified treatment facility. All waste stored on site is properly labeled at the time of production.

Soil Boring Abandonment

Soil borings which are not to be converted into monitor wells are sealed to the ground surface using neat cement, sand-cement slurry, or hydrated bentonite pellets or chips in accordance with federal, state and local regulations. Native soil may be used to fill the top two to three feet for cosmetic purposes, as permitted.

Remediation Well Installation

Well Casing, Screen and Filter Pack Construction

All well construction is performed in accordance with Department of Water Resources "California Well Standards" and all requirements of local oversight agencies. Soil borings to be converted into single-cased monitor wells are a minimum of eight inches in diameter for 2-inch diameter wells, and a minimum of ten inches in diameter for 4-inch diameter wells. Monitor wells are constructed with schedule 40, threaded; polyvinyl chloride (PVC) casing unless site geochemistry or contamination necessitates an alternative regulatory agency approved material. The wells are constructed with factory-slotted screen and threaded end caps.

The screened interval is placed such that it extends approximately ten feet into the water bearing zone, and at least five feet above the expected maximum water level. The screened interval may extend less than five feet above the maximum water level, only to prevent intersection of the screened interval with the top of the confining layer of a confined aquifer, or where the water table is too shallow to allow this construction. A graded sand filter pack is placed in the annular space across the screened interval and extended approximately one to two feet above the screen, as site conditions permit, so as to prevent extension of the sand pack into an overlying water-bearing unit. The well screen slot size is the maximum size capable of retaining 90% of the filter pack. Typically, 0.010-inch screen is used where the formation is predominantly clay and/or silt or poorly graded fine sand. 0.020-inch screen is used where the formation is predominantly well-graded or medium to coarse sand and/or gravel.

The filter pack grade (mean grain size) is selected according to native sediment type as follows: a) for poorly graded fine sand or silt/clay - 4 times the 70% retained grain size of the formation b) for medium to coarse sand, gravel or well graded sediments - 6 times the 70% retained grain size. Since results of particle size analysis are not always available, ATC often selects screen size and filter pack on the basis of general site stratigraphy, and specifically the finest significantly thick layer of sediment to be screened. Commonly selected grades are Lone Star® 3, 2/12 or 2/16 (or equivalent) with 0.020-inch slotted screen and Lone Star® 1/20 with 0.010-inch slotted screen.

Well Seal and Completion

A minimum two-foot seal of bentonite is placed above the sand pack. The bentonite seal is hydrated by either formation water or potable water. Neat cement or a cement/bentonite grout mixture seals the remaining annular space to the surface. If bentonite is used in the grout mixture, it does not exceed 5% by weight. The grout is placed using a tremie pipe, if the top of the bentonite is more than 20 feet below grade, or if water is present in the boring above the bentonite seal. A watertight locking cap and protective traffic-rated vault box is installed on top of each well. Well construction details are presented on the Field Exploratory Soil Boring Log. Following completion of a well, ATC completes and submits, or ensures that the driller has sufficient information to complete and submit, the state-required Well Completion Report or equivalent document.

**STANDARD OPERATING PROCEDURE
FIELD SOIL VAPOR MONITORING**

A representative soil sample will be collected from each sample interval and placed in a Ziplock[®] plastic bag. The bag will be sealed and the soil disaggregated. At least ten minutes will be allowed for the soil to be heated by direct sunlight and for any VOCs in the soil to accumulate in the headspace of the bag. Volatile gases will then be monitored by inserting the probe of a Photovac 2020 photoionization detector (PID). The PID is equipped with a 10.6 eV lamp which is capable of detecting VOCs at concentrations of 0.1 parts per million (ppm). The PID will be calibrated on-site using 100-ppmV isobutylene-in-air span gas (equivalent to benzene) prior to drilling operations. PID readings will be recorded in the boring logs.

STANDARD OPERATING PROCEDURE GROUNDWATER MONITOR WELL PURGING AND SAMPLING

Prior to purging the well, the static water level will be measured using an electronic interface probe to evaluate the presence of any phase-separated hydrocarbons. The measurement will be obtained from a reference point on the north side of the top of the well casing. Fluid measurements will be recorded to the nearest 0.01-foot. Depth to groundwater will be measured from all site wells on the same day. The total depth of the well will also be recorded. If phase separated hydrocarbons are noted, a measurement of the apparent thickness will be obtained and the well will not be sampled. To prevent cross-contamination, all monitoring equipment that is in contact with groundwater will be washed with Alconox[®] detergent and rinsed with distilled water prior to use in each well.

After the static groundwater level and total depth of the well has been determined, the volume of water in the well will be calculated. Based on this data, if free floating hydrocarbons are not present, a minimum of three well volumes of water will be purged from the well using a 2-inch Grundfos[®] submersible pump or a PVC bailer. Periodic measurements (at approximate 5-gallon intervals) of temperature, pH, and specific electrical conductivity will be collected during purging. When three successive stabilized readings are obtained, the well will be sampled. If the well is low yielding and is pumped or bailed dry, the well will be allowed to recover at least 80% of the static groundwater level. If the well does not recover 80% within a 24-hour time frame, a sample will be collected and recovery noted on the Groundwater Sampling Log.

Groundwater purged from the well will be stored on-site in 55-gallon drums pending proper disposition. To prevent cross-contamination, equipment will be washed with Alconox[®] detergent and rinsed with distilled water prior to use in the well.

Groundwater samples will be collected from the well using a disposable polyethylene bailer. Each sample will be collected in laboratory-preserved 1-liter glass bottles and in 40-milliliter volatile organic analysis (VOA) vials. Each vial will be filled completely with sample and preservatives to eliminate headspace and create a positive meniscus. The vial will be capped with convex Teflon[®] septa. Each vial will be observed to ensure that no air bubbles are present within the vial. Samples will be marked for identification, placed on ice, and transported to a State-certified laboratory for analysis. Chain-of-custody records will be maintained and accompany all samples to the analytical laboratory.

APPENDIX D

BORING LOGS AND BORING LOG NOTES









PROJECT: E-Z SERVE LOCATION NO. 100877
 LOCATION: VEAS-1
 BORING DATE: 08-20-02

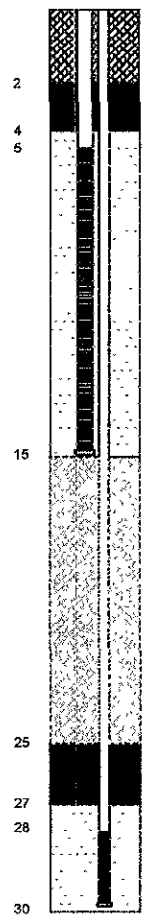
SOIL BORING / WELL LOG

DATUM: GROUND SURFACE

DIP: VERTICAL

LOGGED: SCOTT LEVIN

DEPTH SCALE		1" HOLLOW STEEL AUGERS	SOIL PROFILE		SAMPLES			CONCENTRATION		
FEET			DESCRIPTION	STRATA PLOT	DEPTH B.G.S. (ft)	ID	SOIL TYPE	BLOWS / FOOT		ODOR / STAIN
0			UNPAVED SURFACE							
2			SANDY SILT (ML), DARK GRAYISH BROWN (10yr 4/2), INELASTIC SILT, FINE GRAINED SAND, MEDIUM DENSE, SLIGHTLY DAMP, NO HYDROCARBON (HC) ODOR.							
4			SILTY CLAY (CL), YELLOWISH BROWN (10yr 5/4), VERY FINE GRAINED, LEAN CLAY, SILT, STIFF, SLIGHTLY DAMP, NO HC ODOR.		VEAS-1/5'	CL	11	NN	15 N/A	
6										
8										
10			POORLY GRADED SAND (SP), STRONG BROWN (7 5yr 5/6), FINE TO MEDIUM GRAINED SAND, TRACE SILT, LOOSE, SLIGHTLY DAMP, NO HC ODOR		VEAS-1/10'	SP	5	NN	235 N/A	
12										
14										
16			LEAN CLAY (CL), STRONG BROWN (7 5yr 5/6), LOW TO MEDIUM PLASTIC CLAY, VERY STIFF, VERY MOIST, HC ODOR		VEAS-1/15'	CL	16	YY	319 N/A	
18										
20			SILTY CLAY (CL), DARK GRAYISH BROWN (10yr 4/2), LOW PLASTIC CLAY, SILT, VERY STIFF, WET, HC ODOR		VEAS-1/20'	CL	22	YN	1,000 N/A	
22										
24										
26			BECOMES YELLOWISH BROWN (10yr 5/4), LESS CLAY, MORE SILT, TRACE FINE GRAINED SAND, STIFF, VERY MOIST, HC ODOR AND STAIN.		VEAS-1/25'	CL	8	YY	68 N/A	
28										
30			CLAYEY SILT (ML), BROWN (10yr 5/3), ELASTIC SILT, LOW PLASTIC CLAY, TRACE FINE GRAINED SAND (5-10%), STIFF, WET, HC ODOR.		VEAS-1/30'	ML	9	YN	24.4 N/A	
32			TOTAL DRILLING DEPTH = 30 5' BGS							
34			BOREHOLE COMPLETED AS DUAL COMPLETION VAPOR EXTRACTION /AIR SPARGE WELL WITH 4-INCH DIAMETER PVC CASING, SLOTTED SCREEN (Ø 020") FROM 5 TO 15 FEET BGS, AND A TWO FOOT LONG, 1-INCH DIAMETER STAINLESS STEEL AIR SPARGE POINT SET FROM 28 TO 30 FEET BGS							
36										
38										
40										
42										
44										
46										
48										
50										



PROJECT E-Z SERVE LOCATION NO 100877
 LOCATOR VEAS-2
 BORING DATE: 06-20-02

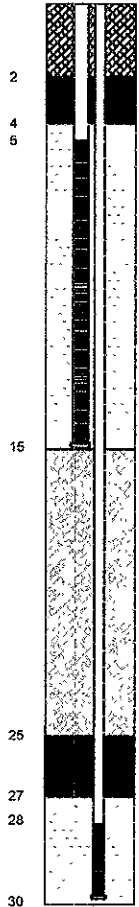
SOIL BORING / WELL LOG

DATUM: GROUND SURFACE

DIP: VERTICAL

LOGGED: SCOTT LEVIN

DEPTH SCALE	SOIL PROFILE	SAMPLES	CONCENTRATION				
			OVA (PPM)	TPHg ANALYTICAL RESULTS (mg/kg)			
FEET	DESCRIPTION	ID	SOIL TYPE	BLOWS / FOOT	ODOR / STAIN	VATC ASSOCIATES INC	
0	UNPAVED SURFACE						
0 - 2	SANDY SILT ORGANIC (ML), BLACK (10yr 2/1), LOOSE, MOIST, NO HYDROCARBON (HC) ODOR.						
2 - 4	SANDY SILT (ML), DARK GRAYISH BROWN (10yr 4/2), INELASTIC SILT, FINE GRAINED SAND, MEDIUM DENSE, SLIGHTLY DAMP, NO HC ODOR						
4 - 6	CLAYEY SAND-SANDY CLAY (CL-SC), BROWN (7.5yr 5/4), VERY FINE GRAINED SAND, LOW PLASTIC CLAY, TRACE SILT, VERY STIFF, SLIGHTLY DAMP, NO HC ODOR	VEAS-2/5'	CL	20	NN	11 N/A	
6 - 10	SANDY SILT (ML), STRONG BROWN (7.5yr 5/6), SILT, VERY FINE GRAINED SAND, FIRM, MOIST, NO HC ODOR	VEAS-2/10'	ML	5	NN	13 N/A	
10 - 18	LEAN CLAY (CL), STRONG BROWN (7.5yr 5/6), LOW TO MEDIUM PLASTIC CLAY, VERY STIFF, VERY MOIST, HC ODOR AND STAIN	VEAS-2/15'	ML	18	YY	225 N/A	
18 - 20	SILTY CLAY (CL), STRONG BROWN (7.5yr 5/6), LOW TO MEDIUM PLASTIC CLAY, SILT, TRACE VERY FINE GRAINED SAND, VERY STIFF, WET, HC ODOR AND STAIN.	VEAS-2/20'	CL	22	YN	223 N/A	
20 - 28	BECOMES YELLOWISH BROWN (10yr 5/4), LESS CLAY, MORE SILT, TRACE FINE GRAINED SAND, STIFF, WET, HC ODOR, NO STAIN	VEAS-2/25'	CL	9	YY	175 N/A	
28 - 30	CLAYEY SILT (ML), BROWN (7.5yr 5/4), ELASTIC SILT, LOW PLASTIC CLAY, TRACE FINE GRAINED SAND, STIFF, WET, NO HC ODOR	VEAS-2/30'	ML	11	YN	34 N/A	
30 - 32	TOTAL DRILLING DEPTH = 30 6' BGS						
32 - 50	BOREHOLE COMPLETED AS DUAL COMPLETION VAPOR EXTRACTION AIR SPARGE WELL WITH 4-INCH DIAMETER PVC CASING, SLOTTED SCREEN (0.020") FROM 5 TO 15 FEET BGS, AND A TWO FOOT LONG, 1-INCH DIAMETER STAINLESS STEEL AIR SPARGE POINT SET FROM 28 TO 30 FEET BGS.						











PROJECT: E-Z SERVE LOCATION NO. 100877
 LOCATION: VEAS-3
 BORING DATE: 08-20-02

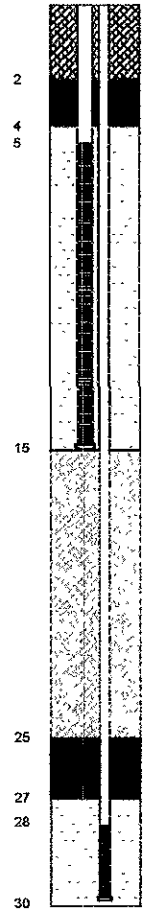
SOIL BORING / WELL LOG

DATUM: GROUND SURFACE

DIP: VERTICAL

LOGGED: SCOTT LEVIN

DEPTH SCALE		SOIL PROFILE			SAMPLES				CONCENTRATION	
FEET	10" HOLLOW STEEL AUGERS	DESCRIPTION	STRATA PLOT	DEPTH BGS (ft)	ID	SOIL TYPE	BLOWS / FOOT	ODOR / STAIN	OVA (PPM) TPHg ANALYTICAL RESULTS (mg/kg)	
0		UNPAVED SURFACE								
2		SANDY SILT WITH ORGANIC (ML-OL), BLACK (10yr 2/1), LOOSE, MOIST, NO HYDROCARBON (HC) ODOR.								
4		SANDY SILT (ML), DARK GRAYISH BROWN (10yr 4/2), INELASTIC SILT, FINE GRAINED SAND, MEDIUM DENSE, SLIGHTLY DAMP, NO HC ODOR			VEAS-3/5	ML	19	NN	11 N/A	
6										
8		SILTY CALY (CL), STRONG BROWN (7.5yr 5/6), LOW TO MEDIUM PLASTIC CLAY, ELASTIC SILT, TRACE VERY FINE GRAINED SAND, STIFF, VERY MOIST, NO HC ODOR			VEAS-3/10	CL	9	NN	13 N/A	
10										
12										
14		LEAN CLAY (CL), STRONG BROWN (7.5yr 5/6), LOW TO MEDIUM PLASTIC CLAY, VERY STIFF, SLIGHTLY DAMP TO DAMP, NO HC ODOR.			VEAS-3/15	CL	21	YY	59 N/A	
16										
18										
20		SILTY CLAY (CL), STRONG BROWN (7.5yr 5/6), LOW PLASTIC CLAY, INELASTIC SILT, TRACE VERY FINE GRAINED SAND, VERY STIFF, MOIST TO VERY MOIST, HC ODOR AND HC STAIN			VEAS-3/20	CL	29	YY	61.6 N/A	
22										
24										
26		BECOMES GRAY (5yr 5/1), LESS CLAY, SILT INCREASES, FIRM, WET, STRONG HC ODOR AND HC STAIN			VEAS-3/25	CL	7	YY	32 N/A	
28										
30		CLAYEY SILT (ML), YELLOWISH BROWN (10yr 5/4), ELASTIC SILT, LOW PLASTIC CLAY, TRACE VERY FINE GRAINED SAND, VERY STIFF, VERY MOIST, NO HC ODOR			VEAS-3/30	CL	22	NN	32 N/A	
32		TOTAL DRILLING DEPTH = 30.5' BGS								
34		BOREHOLE COMPLETED AS DUAL COMPLETION VAPOR EXTRACTION /AIR SPARGE WELL WITH 4-INCH DIAMETER PVC CASING, SLOTTED SCREEN (0.020") FROM 5 TO 15 FEET BGS, AND A TWO FOOT LONG, 1-INCH DIAMETER STAINLESS STEEL AIR SPARGE POINT SET FROM 28 TO 30 FEET BGS.								
36										
38										
40										
42										
44										
46										
48										
50										



DEFINITION OF TERMS

PRIMARY DIVISIONS			GRAPHIC SYMBOL	GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS <small>MORE THAN HALF OF MATERIAL IS LARGER THAN No. 200 SIEVE SIZE</small>	GRAVELS <small>MORE THAN HALF OR COARSE FRACTION IS LARGER THAN No. 4 SIEVE</small>	CLEAN GRAVELS (LESS THAN 5% FINES)		GW	WELL GRADED GRAVELS, GRAVEL SAND MIXTURES, LITTLE OR NO FINES
		GRAVEL WITH FINES		GP	POORLY GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
				GM	SILTY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, NON-PLASTIC FINES
		GRAVEL WITH FINES		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, PLASTIC FINES.
	SANDS <small>MORE THAN HALF OR COARSE FRACTION IS SMALLER THAN No. 4 SIEVE</small>		CLEAN SANDS (LESS THAN 5% FINES)		SW
		SANDS WITH FINES		SP	POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
				SM	SILTY SANDS, SAND-SILT MIXTURES, PLASTIC FINES.
		SANDS WITH FINES		SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES
			SILTS AND CLAYS <small>LIQUID LIMIT IS LESS THAN 50%</small>		ML
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN
FINE GRAINED SOILS <small>MORE THAN HALF OF MATERIAL IS SMALLER THAN No. 200 SIEVE SIZE</small>	SILTS AND CLAYS <small>LIQUID LIMIT IS LESS THAN 50%</small>		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS.	
	SILTS AND CLAYS <small>LIQUID LIMIT IS GREATER THAN 50%</small>		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS				Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS



BOREHOLE/WELL LOG LEGEND

BORING LOG NOTES

The number shown on the Boring Logs refers to the approximate location of the same number indicated on the "Site Plan" as positioned in the field by measurements from property lines and/or existing features.

"**TYPE/SIZE BORING**" refers to the exploratory equipment used in the boring wherein
HSA = hollow-stem auger

"**N**" in "**Blows/Foot**" refers to the number of blows of a 140-pound weight, dropped 30 inches, required to advance a 2.0-inch outside diameter (1.375-inch inside diameter) split-spoon sampler a distance of 1 foot, Standard Penetration Test (ASTM Standard D1586-84). Refusal to penetration is defined as more than 100 blows per foot.

"**R**" in "**Blows/Foot**" refers to the number of blows of a 140-pound weight, dropped 30 inches, required to advance a 3.0-inch outside diameter (2.42-inch inside diameter) ring sampler a distance of 1 foot. Refusal to penetration is considered more than 50 blows per 6 inches of advance.

"**C**" in "**Blows/Foot**" refers to the number of blows of a 140-pound weight, dropped 30 inches, required to advance a California Modified Split-barrel sampler a distance of 1 foot. Refusal to penetration is considered more than 50 blows per 6 inches of advance.

"**Sample Type**" refers to the form of sample recovery, in which

N = Split-Spoon sample **R** = Ring sample **G** = Grab Sample **C** = California Modified Split-Barrel sample

"**Dry Density, pcf**" refers to the laboratory-determined dry density in pounds per cubic foot.

"**Water Content, %**" refers to the laboratory-determined moisture content in percent (ASTM Standard D 2216-90).

"**Unified Soil Class**" refers to the soil type as defined by the United Soil Classification System (ASTM Standard D 2488-90). The soils were classified visually in the field and, where appropriate, classifications were modified by visual examination of samples in the laboratory and/or by appropriate tests.

"**OVM**" or "**PID**" refers to organic vapor meter (typically flame ionization detector) readings or photoionization detector readings, respectively, both in parts per million by volume (ppmV)

These notes and boring logs are intended for use in conjunction with the purposes of our services defined in the text. Boring log data should not be construed as part of the construction plans nor as defining construction conditions.

Boring logs depict our interpretations of subsurface conditions at the specific locations and on the date(s) noted. Variations in subsurface conditions and soil characteristics may occur between borings. Groundwater levels may fluctuate due to seasonal variations and other factors.

In general, terms and symbols on the boring logs conform with "Standard Terminology Relating to Soil, Rock, and Contained Fluids" (ASTM Standard D 653-90)

∇ Groundwater first encountered at depth indicated

∇ 3-15-96 Static groundwater level and date measured

Boring Log Notes

Plate: C-1

ATC Associates Inc.

APPENDIX E

**LABORATORY REPORTS AND CHAIN-OF-CUSTODY
DOCUMENTATION**



REPORT OF ANALYTICAL RESULTS

Client: **Scott Levin**
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: **27813-2**
Collected: **05/29/02**
Received: **06/03/02**
Matrix: **Aqueous**

Project: **EZ Serve #100877**
Project Number: **EZS0024**
Collected by: **Mark Ruddis**

Sample Description:
MW-1
Analyzed: **06/10/02**
Method: **See Below**

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	2.0	330.
Toluene	2.0	13.
Ethylbenzene	2.0	250.
Xylenes	2.0	260.
t-Amyl Methyl Ether (TAME)	2.0	ND
t-Butyl Alcohol (TBA)	20.	ND
Diisopropyl Ether (DIPE)	2.0	2.5
Ethyl-t-Butyl Ether (ETBE)	2.0	ND
Methyl-t-Butyl Ether (MTBE)	2.0	12.
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	200.	6400.
BTX as a Percent of Fuel		9

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA110610
MSD #11
27813-2.xls
DZ/jgt/pv/jh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-1
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description:
MW-1A
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	5.0	32.
Toluene	5.0	ND
Ethylbenzene	5.0	550.
Xylenes	5.0	270.
t-Amyl Methyl Ether (TAME)	5.0	ND
t-Butyl Alcohol (TBA)	50.	ND
Diisopropyl Ether (DIPE)	5.0	ND
Ethyl-t-Butyl Ether (ETBE)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	500.	12000.
BTX as a Percent of Fuel		3

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA110611
MSD #11
27813-1.xls
DZ/jgt/pv/lz

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadyani
Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-3
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description:
MW-2
Analyzed: 06/10/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	5.0	390.
Toluene	5.0	16.
Ethylbenzene	5.0	560.
Xylenes	5.0	1400.
t-Amyl Methyl Ether (TAME)	5.0	ND
t-Butyl Alcohol (TBA)	50.	ND
Diisopropyl Ether (DIPE)	5.0	ND
Ethyl-t-Butyl Ether (ETBE)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	32.
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	500.	8100.
BTX as a Percent of Fuel		22

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit
**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.
Note: Analytical range is C4-C12.
Note: TPH quantitated against gasoline.
Note: Oxygenates not included in TPH result.

VA110610
MSD #11
27813-3.xls
DZ/jgt/pv/jh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-4
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description: MW-3
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	5.0	18.
Toluene	5.0	ND
Ethylbenzene	5.0	53.
Xylenes	5.0	13.
t-Amyl Methyl Ether (TAME)	5.0	ND
t-Butyl Alcohol (TBA)	50.	ND
Diisopropyl Ether (DIPE)	5.0	ND
Ethyl-t-Butyl Ether (ETBE)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	500.	2000.
BTX as a Percent of Fuel		2

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination..

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110611
MSD #11
27813-4.xls
DZ/jgt/pv/lz

Client: Scott Levin
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 27813-5
 Collected: 05/29/02
 Received: 06/03/02
 Matrix: Aqueous

Project: EZ Serve #100877
 Project Number: EZS0024
 Collected by: Mark Ruddis

Sample Description:
 MW-4
 Analyzed: 06/10/02
 Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	20.	720.
Toluene	20.	57.
Ethylbenzene	20.	600.
Xylenes	20.	200.
t-Amyl Methyl Ether (TAME)	20.	ND
t-Butyl Alcohol (TBA)	200.	ND
Diisopropyl Ether (DIPE)	20.	ND
Ethyl-t-Butyl Ether (ETBE)	20.	ND
Methyl-t-Butyl Ether (MTBE)	20.	35.
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	2000.	5300.
BTX as a Percent of Fuel		18

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA110610
 MSD #11
 27813-5.xls
 DZ/jgt/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadyani
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-6
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description:
MW-5
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	66.
Toluene	0.5	0.8
Ethylbenzene	0.5	110.
Xylenes	0.5	7.4
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	2.0
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	0.9
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	3900.
BTX as a Percent of Fuel		2

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.


Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager

VA110611
MSD #11
27813-6.xls
DZ/jgt/pv/lz



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-7
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description:
MW-6
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	5.0	26.
Toluene	5.0	7.0
Ethylbenzene	5.0	150.
Xylenes	5.0	27.
t-Amyl Methyl Ether (TAME)	5.0	ND
t-Butyl Alcohol (TBA)	50.	ND
Diisopropyl Ether (DIPE)	5.0	ND
Ethyl-t-Butyl Ether (ETBE)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	500.	5200.
BTX as a Percent of Fuel		1

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

- Note: Analyzed by EPA 8260 and GC/MS Combination.
- Note: Analytical range is C4-C12.
- Note: TPH quantitated against gasoline.
- Note: Oxygenates not included in TPH result.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110610
MSD #11
27813-7.xls
DZ/jgt/pv/jh



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-8
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description: MW-7
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	1.0
Toluene	0.5	ND
Ethylbenzene	0.5	3.4
Xylenes	0.5	1.9
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	1600.
BTX as a Percent of Fuel		<1

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA110611
MSD #11
27813-8.xls
DZ/jgt/pv/jh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-9
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description: MW-12
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110610
MSD #11
27813-9.xls
DZ/jgt/pv/jh



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-10
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description: MW-13
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

- Note: Analyzed by EPA 8260 and GC/MS Combination.
- Note: Analytical range is C4-C12.
- Note: TPH quantitated against gasoline.
- Note: Oxygenates not included in TPH result.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110610
MSD #11
27813-10.xls
DZ/jgt/pv/jh



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 27813-11
Collected: 05/29/02
Received: 06/03/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Mark Ruddis

Sample Description: MW-14
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110610
MSD #11
27813-11.xls
DZ/jgt/pv/jh



QUALITY ASSURANCE REPORT
BLANK RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VA110610
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Instrument Blank
Analyzed: 06/10/02
Method: See Below

CONSTITUENT	PQL * ug/L	RESULT ** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Gasoline	50.	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA110610
MSD #11
A110610b.xls
DZ/sw/pv/lz

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
SPIKE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VA110610
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike
Analyzed: 06/10/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery
Benzene	2.0	1.9	95
Toluene	30.4	30.6	101
Ethylbenzene	8.3	8.3	100
Xylenes	47.7	47.9	100
Methyl t-Butyl Ether (MTBE)	31.1	30.0	96
Percent Surrogate Recovery			101

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	503.	101
BTX as a Percent of Fuel	16	16	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110610
MSD #11
A110610q.xls
DZ/sw/pv/lz



QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VA110610
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 06/10/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery	Relative Percent Difference*
Benzene	2.0	1.8	90	5
Toluene	30.4	30.5	100	0
Ethylbenzene	8.3	8.3	100	0
Xylenes	47.7	47.8	100	0
Methyl t-Butyl Ether (MTBE)	31.1	29.9	96	0
Percent Surrogate Recovery			101	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	500.	100	1
BTX as a Percent of Fuel	16	16		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110610
MSD #11
A110610q.xls
DZ/sw/pv/lz



QUALITY ASSURANCE REPORT
BLANK RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VA110611
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Instrument Blank
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Gasoline	50.	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110611
MSD #11
A110611b.xls
DZ/jgt/pv/lz



QUALITY ASSURANCE REPORT
SPIKE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS A110611
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery
Benzene	1.9	1.9	100
Toluene	31.9	31.7	99
Ethylbenzene	8.8	8.7	99
Xylenes	50.3	50.0	99
Methyl t-Butyl Ether (MTBE)	34.6	32.2	93
Percent Surrogate Recovery			102

TOTAL PETROLEUM HYDROCARBONS


Gasoline	500.	499.	100
BTX as a Percent of Fuel	17	17	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA110611
MSD #11
VA110611q.xls
DZ/jdm/lz

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD A110611
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 06/11/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery	Relative Percent Difference*
Benzene	1.9	1.9	100	0
Toluene	31.9	31.8	100	0
Ethylbenzene	8.8	8.8	100	1
Xylenes	50.3	50.5	100	1
Methyl t-Butyl Ether (MTBE)	34.6	32.8	95	2
Percent Surrogate Recovery			101	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	497.	99	0
BTX as a Percent of Fuel	17	17		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA110611
MSD #11
VA110611q.xls
DZ/jdm/lz

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



71 Zaca Lane San Luis Obispo CA 93401 tel 805.544.4696 fax 805.544.8226

CHAIN of CUSTODY

report to SCOTT LEVIN	phone 858-569-0692	fax 569-0695	ANALYSIS REQUESTED						Turnaround Time	
company ATC ASSOCIATES INC.	project EZ SERVE 100877		TPH5 / BTX	MXD + OXB	0928					ASAP <input type="checkbox"/> 48 hr <input type="checkbox"/>
address 9620 CHESAPEAKE DR. #203	project # 4325827.0024									12 hr <input type="checkbox"/> 72 hr <input type="checkbox"/>
SAN DIEGO, CA. 92123	sampler MARK RUDOLPH									24 hr <input type="checkbox"/> std <input checked="" type="checkbox"/>

ZymaX use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	TPH5 / BTX	MXD + OXB								# of containers	Remarks
17813-1	MW-1A	5/29/02	1600	H ₂ O	Wd/ke	X	X								3	
2	MW-1		1300													
3	MW-2		1500													
4	MW-3		1200													
5	MW-4		1400													
6	MW-5		1110													
7	MW-6		1020													
8	MW-7		0840													
9	MW-12		0700													
10	MW-13		0930													
11	MW-14		0750													

Comments

Relinquished by:

Signature: Mark Rudolph

Print: MARK RUDOLPH

Company: ATC ASSOC.

Date: 5/29/02 Time: 1:25 PM

Received by:

Signature: _____

Print: _____

Company: _____

Date: _____ Time: _____

Sample integrity upon receipt:

Samples received intact

Samples received cold

Custody seals

Correct container types

Bill 3rd Party:

PO# _____

Quote yes no

Relinquished by:

Signature: _____

Print: _____

Company: _____

Date: _____ Time: _____

Received by ZymaX envirotechnology inc:

Signature: Jim White

Print: JIM WHITE

Company: ZymaX

Date: 6/13/02 Time: 1:25 PM



FAX

Fax Number: (858) 569-0695

Company: ATC Associates, Inc.

Attention: Mike Davis

Date: 07/08/02

From: Steve Wilkerson

Number of Pages: 29
(excluding cover sheet)

Additional Comments: Results follow.

Project Name: EZ Serve #100877

Project Number: EZS0024

ZymaX Lab ID: 28017



71 Zaca Lane
San Luis Obispo CA 93401
phone: 805.544.4696
fax: 805.544.8226
email: zymax@ZymaXusa.com



71 Zaca Lane San Luis Obispo CA 93401 tel 805.544.4696 fax 805.544.8226

CHAIN of CUSTODY

JUL 08 2002 18:19 HP LASERJET 3200

report to MIKE DAVIS	phone 858.569.0692	fax 569.0695	ANALYSIS REQUESTED	Turnaround Time ASAP <input type="checkbox"/> 48 hr <input type="checkbox"/> 12 hr <input type="checkbox"/> 72 hr <input type="checkbox"/> 24 hr <input type="checkbox"/> std <input checked="" type="checkbox"/>
company ATC ASSOCIATES	project E2SERVE 100877	project # 43-25827.0024		
address 9620 CHESAPEAKE DR. SUITE 203 SAN DIEGO CA 92123	sampler SCOTT LEVIN			

Zymax use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	TPH	BTEX	MIBE+OAVS	# of containers	Remarks
1	VEAS-1/5'	06-20-02	9 ⁵⁵	SOIL	ICE	X	X	X		
2	VEAS-1/10'		10 ⁰⁰							
3	VEAS-1/15'		10 ¹⁰							
4	VEAS-1/20'		10 ²⁰							
5	VEAS-1/25'		10 ³⁰							
6	VEAS-1/30'		10 ⁴⁰							
7	VEAS-2/5'		13 ¹⁰							
8	VEAS-2/10'		13 ²⁰							
9	VEAS-2/15'		13 ³⁰							
10	VEAS-2/20'		13 ⁴⁰							
11	VEAS-2/25'		13 ⁵⁰							

Comments Please Fax Results ✓ EDF	Relinquished by: Signature _____ Print SCOTT LEVIN Company ATC ASSOC. Date 6/21/02 Time 0930	Received by: Signature _____ Print Jim Heule Company Zymax Date 6/21/02 Time 0930
	Relinquished by: Signature _____ Print _____ Company _____ Date _____ Time _____	Received by Zymax envirotechnology inc: Signature _____ Print _____ Company _____ Date _____ Time _____

Sample integrity upon receipt:

Samples received intact

Samples received cold

Custody seals

Correct container types

Bill 3rd Party: _____

PO# _____

Quote yes no



71 Zaca Lane San Luis Obispo CA 93401 tel 805.544.4696 fax 805.544.8226

CHAIN of CUSTODY

JUL 08 2002 18:19 HP LASERJET 3200

report to MIKE DAVIS	phone 805.569.0692	fax 569.0695
company ATC ASSOCIATES	project E2 SERVE 100877	ANALYSIS REQUESTED 8260 TPMS BTEX MTBE + OXY'S
address 9620 CHESAPEAKE DR. SUITE 203 SAN DIEGO CA 92123	project # 43-25827.0024	
	sampler SCOTT LEVIN	

Turnaround Time

ASAP 48 hr

12 hr 72 hr

24 hr std

Zymax use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	TPMS	BTEX	MTBE + OXY'S	# of containers	Remarks
0101-12	VEAS-2/30'	6-20-02	14 ⁰⁰	SOIL	ICE	X	X	X	1	
0101-13	VEAS-3/5'	↓				↓	↓	↓		
0101-14	VEAS-3/10'	↓				↓	↓	↓		
0101-15	VEAS-3/15'	↓				↓	↓	↓		
0101-16	VEAS-3/20'	↓				↓	↓	↓		
0101-17	VEAS-3/25'	↓				↓	↓	↓		
0101-18	VEAS-3/30'	↓				↓	↓	↓		

Comments

✓ EDT

PLEASE FAX RESULTS

Relinquished by:

Signature [Signature]

Print SCOTT LEVIN

Company ATC ASSOC.

Date 6/21/02 Time 0930

Received by:

Signature [Signature]

Print LEVIN ALVES

Company ZYMAX

Date 6/21/02 Time 0920

Sample integrity upon receipt:

Samples received intact

Samples received cold

Custody seals

Correct container types

Bill 3rd Party:

PO# _____

Quote yes no

Relinquished by:

Signature _____

Print _____

Company _____

Date _____ Time _____

Received by Zymax envirotechnology inc:

Signature _____

Print _____

Company _____

Date _____ Time _____



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-1
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-1/5'
Analyzed: 07/03/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80703
 MSD #8
 28017-1.xls
 DZ/sks/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-2
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-1/10'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		98

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, Inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80704
 MSD #8
 28017-2.xls
 DZ/sks/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-3
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-1/15'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	0.83
Xylenes	0.005	3.0
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	69.
BTX as a Percent of Fuel		4

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80704
 MSD #8
 28017-3.xls
 DZ/sks/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-4
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-1/20'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.5	0.7
Toluene	0.5	ND
Ethylbenzene	0.5	8.8
Xylenes	0.5	40.
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		106

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	670.
BTX as a Percent of Fuel		6

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80704
 MSD #8
 28017-4.xls
 DZ/ska/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-5
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-1/25'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Dilsopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80704
 MSD #8
 28017-5.xls
 DZ/sks/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-6
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-1/30'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80704
 MSD #8
 28017-6.xls
 DZ/sks/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-7
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-2/5'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	0.005
Xylenes	0.005	0.017
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.


Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80703
 MSD #8
 28017-7.xls
 DZ/sks/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadyani
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-8
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-2/10'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	0.010
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80703
 MSD #8
 28017-8.xls
 DZ/sks/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-9
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-2/15'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	0.012
Toluene	0.005	ND
Ethylbenzene	0.005	0.020
Xylenes	0.005	0.013
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	2.0
BTX as a Percent of Fuel		1

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80703
 MSD #8
 28017-9.xls
 DZ/sks/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadyani
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-10
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-2/20'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	0.062
Toluene	0.005	ND
Ethylbenzene	0.005	0.086
Xylenes	0.005	0.10
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		105

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	6.2
BTX as a Percent of Fuel		3

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80703
 MSD #8
 28017-10.xls
 DZ/sks/pv/jh

Submitted by,
 ZymaX envirotechnology, Inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-11
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-2/25'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	0.016
Xylenes	0.005	0.026
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		105

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	1.9
BTX as a Percent of Fuel		1

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80703
 MSD #8
 28017-11.xls
 DZ/sks/pv/jjh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-12
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description:
 VEAS-2/30'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	0.006
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		104

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80703
 MSD #8
 28017-12.xls
 DZ/sks/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-13
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-3/5'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	0.007
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80703
 MSD #8
 28017-13.xls
 DZ/sks/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-14
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-3/10'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

- Note: Analyzed by EPA 8260 and GC/MS Combination.
- Note: Analytical range is C4-C12.
- Note: TPH quantitated against gasoline.
- Note: Oxygenates not included in TPH result.

VS80704
 MSD #8
 28017-14.xls
 DZ/sks/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davls
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-15
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-3/15'
Analyzed: 07/06/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	0.007
Xylenes	0.005	0.008
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	1.8
BTX as a Percent of Fuel		<1

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80705
 MSD #8
 28017-15.xls
 DZ/sks/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-16
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-3/20'
Analyzed: 07/06/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	0.010
Toluene	0.005	ND
Ethylbenzene	0.005	0.036
Xylenes	0.005	0.024
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103

TOTAL PETROLEUM HYDROCARBONS		
Total Petroleum Hydrocarbons	0.5	1.7
BTX as a Percent of Fuel		2

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
 *PQL - Practical Quantitation Limit
 **Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.
 Note: Analytical range is C4-C12.
 Note: TPH quantitated against gasoline.
 Note: Oxygenates not included in TPH result.

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager

VS80705
 MSD #8
 28017-16.xls
 DZ/sks/pv/jh



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-17
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: VEAS-3/25'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit
 **Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.
 Note: Analytical range is C4-C12.
 Note: TPH quantitated against gasoline.
 Note: Oxygenates not included in TPH result.

VS80704
 MSD #8
 28017-17.xls
 DZ/sks/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadyani
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28017-18
Collected: 06/20/02
Received: 06/21/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description:
 VEAS-3/30'
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80704
 MSD #8
 28017-18.xls
 DZ/sks/pv/de/jh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadanyi
 Project Manager



**QUALITY ASSURANCE REPORT
SPIKE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VS80703
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike
Analyzed: 07/03/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery
Benzene	0.007	0.008	114
Toluene	0.096	0.107	111
Ethylbenzene	0.024	0.029	121
Xylenes	0.127	0.146	115
Methyl t-Butyl Ether (MTBE)	0.088	0.077	88
Percent Surrogate Recovery			105

TOTAL PETROLEUM HYDROCARBONS

Gasoline	1.66	1.64	99
BTX as a Percent of Fuel	9	16	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80703
MSD #8
VS80703q.xls
DZ/sks/pv/jh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VS80703
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike Duplicate
Analyzed: 07/03/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery	Relative Percent Difference*
Benzene	0.007	0.008	114	0
Toluene	0.096	0.104	108	3
Ethylbenzene	0.024	0.028	117	4
Xylenes	0.127	0.144	113	1
Methyl t-Butyl Ether (MTBE)	0.088	0.091	103	17
Percent Surrogate Recovery			106	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	1.66	1.59	96	3
BTX as a Percent of Fuel	9	16		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80703
MSD #8
VS80703q.xls
DZ/sks/pv/jh

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VS80704
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery
Benzene	0.007	0.007	100
Toluene	0.102	0.104	102
Ethylbenzene	0.029	0.028	97
Xylenes	0.142	0.142	100
Methyl t-Butyl Ether (MTBE)	0.088	0.099	113
Percent Surrogate Recovery			106

TOTAL PETROLEUM HYDROCARBONS

Gasoline	1.67	1.67	100
BTX as a Percent of Fuel	10	15	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80704
MSD #8
VS80704q.xls
DZ/sks/pv/jh

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VS80704
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 07/04/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery	Relative Percent Difference*
Benzene	0.007	0.007	100	0
Toluene	0.102	0.103	101	1
Ethylbenzene	0.029	0.028	97	0
Xylenes	0.142	0.142	100	0
Methyl t-Butyl Ether (MTBE)	0.088	0.092	105	7
Percent Surrogate Recovery			106	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	1.67	1.68	101	1
BTX as a Percent of Fuel	10	15		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80704
MSD #8
VS80704q.xls
DZ/sks/pv/jh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadyani
Project Manager



QUALITY ASSURANCE REPORT
BLANK RESULTS

Client:
ZymaX envirotechnology, Inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VS80703
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Instrument Blank
Analyzed: 07/03/02
Method: EPA 8260

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

ZymaX envirotechnology, Inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

VS80703
MSD #8
VS80703b.xls
DZ/sks/pv/de

Submitted by,
ZymaX envirotechnology, Inc.

Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
BLANK RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VS80704
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Instrument Blank
Analyzed: 07/04/02
Method: EPA 8260

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

VS80704
MSD #8
VS80704b.xls
DZ/sks/pv/jh

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
BLANK RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VS80705
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Instrument Blank
Analyzed: 07/05/02
Method: EPA 8260

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

VS80705
MSD #8
VS80705b.xls
DZ/sks/pv/de

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE RESULTS**

Client:
ZymaX envirotechnology, Inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VS80705
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery
Benzene	0.007	0.008	114
Toluene	0.102	0.107	105
Ethylbenzene	0.031	0.028	90
Xylenes	0.167	0.140	84
Methyl t-Butyl Ether (MTBE)	0.098	0.092	94
Percent Surrogate Recovery			106

TOTAL PETROLEUM HYDROCARBONS


Gasoline	1.67	1.52	91
BTX as a Percent of Fuel	17	17	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80705
MSD #8
VS80705q.xls
DZ/sks/pv/de/jh

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VS80705
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike Duplicate
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery	Relative Percent Difference*
Benzene	0.007	0.008	114	0
Toluene	0.102	0.121	119	12
Ethylbenzene	0.031	0.031	100	10
Xylenes	0.167	0.157	94	11
Methyl t-Butyl Ether (MTBE)	0.098	0.103	105	11
Percent Surrogate Recovery			106	
TOTAL PETROLEUM HYDROCARBONS				
Gasoline	1.67	1.63	98	7
BTX as a Percent of Fuel	17	18		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80705
MSD #8
VS80705q.xls
DZ/sks/pv/de/jh

Submitted by,
ZymaX envirotechnology, inc.

Dwayne Zsadanyi
Project Manager



FAX

Fax Number: (858) 569-0695

Company: ATC Associates, Inc.

Attention: Mike Davis

Date: 07/08/02

From: Steve Wilkerson

Number of Pages: 13
(excluding cover sheet)

Additional Comments: Results follow.

Project Name: EZ Serve #100877

Project Number: EZS0024

ZymaX Lab ID: 28042



71 Zaca Lane
San Luis Obispo CA 93401
phone: 805.544.4696
fax: 805.544.8226
email: zymax@ZymaXusa.com



71 Zaca Lane San Luis Obispo CA 93401 tel 805.544.4696 fax 805.544.8226

CHAIN of CUSTODY

JUL 08 2002 18:39 HP LASERJET 3200

report to MIKE DAVIS	phone 858.569.0692	fax 569.0695	ANALYSIS REQUESTED				Turnaround Time	
company ATC ASSOCIATES INC.	project E-2SERVE*100877		TPHS	BTEX	MTBE+OXY			ASAP <input type="checkbox"/> 48 hr <input type="checkbox"/>
address 7620 CHESAPEAKE DRIVE SUITE 203 SAN DIEGO CA 92123	project # 43.25827.0024							12 hr <input type="checkbox"/> 72 hr <input type="checkbox"/>
sampler SCOTT LEVIN		24 hr <input type="checkbox"/> std <input checked="" type="checkbox"/>						

Zymax use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	TPHS	BTEX	MTBE+OXY	# of containers	Remarks
28042	EX-1/10'	6-24-02	1110	SOIL	ICE	XX	X			
2	EX-1/15'	↓	1115	↓	↓	↓	↓	↓	↓	
3	EX-1/20'	↓	1120	↓	↓	↓	↓	↓	↓	
4	EX-1/25'	↓	1130	↓	↓	↓	↓	↓	↓	
5	EX-1/30'	↓	1140	↓	↓	↓	↓	↓	↓	
6	EX-1/35'	↓	1150	↓	↓	↓	↓	↓	↓	

Comments VEDF	Relinquished by: Signature: Print: SCOTT LEVIN Company: ATC ASSOC. Date: 6/25/02 Time: 4:10 PM	Received by: Signature: _____ Print: _____ Company: _____ Date: _____ Time: _____
	Relinquished by: Signature: _____ Print: _____ Company: _____ Date: _____ Time: _____	Received by Zymax envirotechnology inc: Signature: Print: JIM WHITE Company: ZYMAX Date: 6/25/02 Time: 4:10 PM

Sample integrity upon receipt:

Samples received intact

Samples received cold

Custody seals

Correct container types

Bill 3rd Party:

PO# _____

Quote yes no



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28042-1
Collected: 06/24/02
Received: 06/25/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: EX-1/10'
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80705
 MSD #8
 28042-1.xls
 DZ/jgt/pv/de

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28042-2
Collected: 06/24/02
Received: 06/25/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: EX-1/15'
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	0.006
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80705
 MSD #8
 28042-2.xls
 DZ/jgt/pv/de

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28042-3
Collected: 06/24/02
Received: 06/25/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: EX-1/20'
Analyzed: 07/07/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.1	ND
Toluene	0.1	ND
Ethylbenzene	0.1	0.7
Xylenes	0.1	1.6
t-Amyl Methyl Ether (TAME)	0.1	ND
t-Butyl Alcohol (TBA)	1.0	ND
Dilsopropyl Ether (DIPE)	0.1	ND
Ethyl-t-Butyl Ether (ETBE)	0.1	ND
Methyl-t-Butyl Ether (MTBE)	0.1	ND
Percent Surrogate Recovery		104

TOTAL PETROLEUM HYDROCARBONS		
Total Petroleum Hydrocarbons	10.	100.
BTX as a Percent of Fuel		2

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80706
 MSD #8
 28042-3.xls
 DZ/jgt/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28042-4
Collected: 06/24/02
Received: 06/25/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: EX-1/25'
Analyzed: 07/06/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	0.009
Xylenes	0.005	0.017
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103
TOTAL PETROLEUM HYDROCARBONS		
Total Petroleum Hydrocarbons	0.5	1.1
BTX as a Percent of Fuel		2

ZymaX envirotechnology, Inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80706
 MSD #8
 28042-4.xls
 DZ/jgt/pv/jh

Submitted by,
 ZymaX envirotechnology, Inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28042-5
Collected: 06/24/02
Received: 06/25/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description: EX-1/30'
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103
TOTAL PETROLEUM HYDROCARBONS		
Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80705
 MSD #8
 28042-5.xls
 DZ/jgt/pv/jh

Submitted by,
 ZymaX envirotechnology, inc.

Dwain Zsadanyi
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Mike Davis
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 28042-6
Collected: 06/24/02
Received: 06/25/02
Matrix: Soil

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Scott Levin

Sample Description:
 EX-1/35'
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	0.007
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		103
TOTAL PETROLEUM HYDROCARBONS		
Total Petroleum Hydrocarbons	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VS80705
 MSD #8
 28042-6.xls
 DZ/jgt/pv/jjh

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadanyi
 Project Manager



QUALITY ASSURANCE REPORT
BLANK RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VS80705
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Instrument Blank
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Dilsopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Gasoline	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717


*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80705
MSD #8
VS80705b.xls
DZ/jgt/pv/de

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VS80705
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery
Benzene	0.007	0.008	114
Toluene	0.102	0.107	105
Ethylbenzene	0.031	0.028	90
Xylenes	0.167	0.140	84
Methyl t-Butyl Ether (MTBE)	0.098	0.092	94
Percent Surrogate Recovery			106

TOTAL PETROLEUM HYDROCARBONS

Gasoline	1.67	1.52	91
BTX as a Percent of Fuel	17	17	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80705
MSD #8
VS80705q.xls
DZ/sks/pv/de/jh

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VS80705
Collected:
Received:
Matrix: Soil

Project:

Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 07/05/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery	Relative Percent Difference*
Benzene	0.007	0.008	114	0
Toluene	0.102	0.121	119	12
Ethylbenzene	0.031	0.031	100	10
Xylenes	0.167	0.157	94	11
Methyl t-Butyl Ether (MTBE)	0.098	0.103	105	11
Percent Surrogate Recovery			106	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	1.67	1.63	98	7
BTX as a Percent of Fuel	17	18		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80705
MSD #8
VS80705q.xls
DZ/sks/pv/de/jh

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VS80706
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike
Analyzed: 07/06/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery
Benzene	0.007	0.007	100
Toluene	0.105	0.100	95
Ethylbenzene	0.027	0.026	96
Xylenes	0.136	0.131	96
Methyl t-Butyl Ether (MTBE)	0.092	0.084	91
Percent Surrogate Recovery			106

TOTAL PETROLEUM HYDROCARBONS

Gasoline	1.67	1.58	95
BTX as a Percent of Fuel	15	15	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80706
MSD #8
VS80706q.xls
DZ/jgt/pv

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadyi
Project Manager



**QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VS80706
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 07/06/02
Method: See Below

CONSTITUENT	Amount Spiked mg/kg	Amount Recovered mg/kg	Percent Recovery	Relative Percent Difference*
Benzene	0.007	0.007	100	0
Toluene	0.105	0.103	98	3
Ethylbenzene	0.027	0.027	100	4
Xylenes	0.136	0.136	100	4
Methyl t-Butyl Ether (MTBE)	0.092	0.083	90	1
Percent Surrogate Recovery			106	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	1.67	1.66	99	5
BTX as a Percent of Fuel	15	15		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80706
MSD #8
VS80706q.xls
DZ/jgt/pv

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



**QUALITY ASSURANCE REPORT
BLANK RESULTS**

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VS80706
Collected:
Received:
Matrix: Soil

Project:
Project Number:
Collected by:

Sample Description:
Instrument Blank
Analyzed: 07/06/02
Method: See Below

CONSTITUENT	PQL* mg/kg	RESULT** mg/kg
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Xylenes	0.005	ND
t-Amyl Methyl Ether (TAME)	0.005	ND
t-Butyl Alcohol (TBA)	0.05	ND
Diisopropyl Ether (DIPE)	0.005	ND
Ethyl-t-Butyl Ether (ETBE)	0.005	ND
Methyl-t-Butyl Ether (MTBE)	0.005	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS		
Gasoline	0.5	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

VS80706
MSD #8
VS80706b.xls
DZ/jgt/pv/de

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager



71 Zaca Lane
San Luis Obispo CA 93401 tel 805.544.4696
fax 805.544.8226

CHAIN of CUSTODY

report to SCOTT MECKSTROTH	phone (805) 569-0692	fax (805) 569-0692	ANALYSIS REQUESTED	Turnaround Time	
company ATC Associates	project EZ SERVE 100977				ASAP <input type="checkbox"/> 48 hr <input type="checkbox"/>
address 9620 Chesapeake #203 SAN DIEGO, CA 92123	project # 43,25827-0024				12 hr <input type="checkbox"/> 72 hr <input type="checkbox"/>
	sampler BRYAN HELL		24 hr <input type="checkbox"/> std <input type="checkbox"/>		

ZymaX use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	TPH, BTEX, MTBE	Fuel Oils	General Minerals	# of containers	Remarks
28180-1	EX-1/1	7-9-02	730	Water		X	X		5	
2	EX-1/2	7-9-02	1330	Water		X	X			
3	EX-1/3	7-9-02	2200	Water		X	X			
4	EX-1/4	7-9-02	2200	Water				X		
5	EX-1/4	7-10-02	745	Water		X	X			

Comments LUFT EDD	Relinquished by: Signature: <u>[Signature]</u> Print: <u>BRYAN HELL</u> Company: <u>ATC Associates</u> Date: <u>7-10-02</u> Time: <u>1200</u>	Received by: Signature: <u>[Signature]</u> Print: <u>Michael Costello</u> Company: <u>ZymaX</u> Date: <u>7/10/02</u> Time: <u>1200</u>
	Relinquished by: Signature: _____ Print: _____ Company: _____ Date: _____ Time: _____	Received by ZymaX envirotechnology, inc: Signature: _____ Print: _____ Company: _____ Date: _____ Time: _____



REPORT OF ANALYTICAL RESULTS

Client: Scott Meckstroth
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 28180-1
Collected: 07/09/02
Received: 07/10/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: Bryan Hill

Sample Description:
EX-1/1
Analyzed: 07/15/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	83.
Toluene	0.5	21.
Ethylbenzene	0.5	6.5
Xylenes	0.5	220.
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	0.6
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	3.3
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	3100.
BTX as a Percent of Fuel		10

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA80715
MSD #8
28180-1.xls
DZ/jdm/pv/jh

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VA80715
Collected:
Received:
Matrix: Aqueous

Project:

Project Number:
Collected by:

Sample Description: Quality Assurance Spike
Analyzed: 07/15/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery
Benzene	2.0	1.8	90
Toluene	29.4	26.8	91
Ethylbenzene	7.3	6.5	89
Xylenes	37.8	33.8	89
Methyl t-Butyl Ether (MTBE)	22.9	19.8	86
Percent Surrogate Recovery			112

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	412.	82
BTX as a Percent of Fuel	14	15	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA80715
MSD #8
VA80715q.xls
DZ/jdm/pv/mh

Submitted by,
ZymaX envirotechnology, inc.



Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VA80715
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 07/15/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery	Relative Percent Difference*
Benzene	2.0	1.9	95	5
Toluene	29.4	29.6	101	10
Ethylbenzene	7.3	7.0	96	7
Xylenes	37.8	36.7	97	8
Methyl t-Butyl Ether (MTBE)	22.9	21.8	95	10
Percent Surrogate Recovery			114	


TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	441.	88	7
BTX as a Percent of Fuel	14	15		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA80715
MSD #8
VA80715q.xls
DZ/jdm/pv/mh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
BLANK RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VA80715
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Instrument Blank
Analyzed: 07/15/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		109

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

VA80715
MSD #8
VA80715b.xls
DZ/jdm/mh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
SPIKE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VA110717
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike
Analyzed: 07/17/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery
Benzene	1.6	1.5	94
Toluene	27.3	25.4	93
Ethylbenzene	7.6	6.9	91
Xylenes	43.6	39.4	90
Methyl t-Butyl Ether (MTBE)	24.4	21.9	90
Percent Surrogate Recovery			102

TOTAL PETROLEUM HYDROCARBONS


Gasoline	500.	529.	106
BTX as a Percent of Fuel	15	13	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA110717
MSD #11
VA110717q.xls
DZ/jdm/mh

Submitted by,
ZymaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VA110717
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike Duplicate
Analyzed: 07/17/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery	Relative Percent Difference*
Benzene	1.6	1.6	100	6
Toluene	27.3	26.5	97	4
Ethylbenzene	7.6	7.2	95	4
Xylenes	43.6	41.1	94	4
Methyl t-Butyl Ether (MTBE)	24.4	25.0	102	13
Percent Surrogate Recovery			101	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	544.	109	3
BTX as a Percent of Fuel	15	13		

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*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA110717
MSD #11
VA110717q.xls
DZ/jdm/mh

Submitted by,
ZymaX envirotechnology, inc.



Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
BLANK RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VA110717
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Instrument Blank
Analyzed: 07/17/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		100

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

VA110717
MSD #11
A110717b.xls
DZ/jdm/mh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager