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CORRECTIVE ACTION PLAN

9/4/02

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

Submitted to
Restructure Petroleum Marketing Services of California, Inc.
205 South Hoover Boulevard
Tampa, Florida 33609

Submitted by
ATC Associates Inc.
9620 Chesapeake Drive, Suite 203
San Diego, California 92123

ATC Work Order No. 100877-C1-8
ATC Job No. 43.25827.0024
September 4, 2002

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1.0 SITE DESCRIPTION

a) STID Number(s): 3580

b) Facility Name: Former E-Z Serve Location No. 100877

c) Facility Street Address: 525 West A Street
City: Hayward Zip: 95073
County: Alameda Phone: Not Available

APN # 432-0016-026-03

d) Describe occupancy of the facility: Former E-Z Serve gas station

e) Describe current property use: Vacant

2.0 INVOLVED PARTIES

a) Eligible person:
Restructure Petroleum Marketing Services of California, Inc.
205 South Hoover Boulevard, Suite 101
Tampa, FL 33609
Phone: (813) 986-2443 Fax: (813) 986-2445

b) Responsible Party:
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c) Property Owner:
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Redwood City, CA 94063

d) Facility Contact:
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3.0 CONSULTANT INFORMATION

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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; ATC, June 2002), 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, Groundwater Monitor and Remediation Well Construction Details and Survey Data. The most recent groundwater gauging and sampling event was performed by ATC Associates Inc. (ATC) on May 29, 2002. During this gauging event the depth to groundwater beneath the site ranged from 14.10 (MW-13) to 16.24 (MW-12) feet bgs. During this groundwater monitor event a hydraulic gradient of approximately 0.009 vertical feet to horizontal foot (ft/ft) trending towards the west-southwest was

calculated. Groundwater conditions are illustrated in Figure 4, Groundwater Summary Map - (May 29, 2002). Historically, elevated concentrations of petroleum hydrocarbons have been detected in groundwater samples obtained from all the wells, excluding wells MW-8, MW-12, and MW-13. Analytical results for past and current groundwater sampling events are summarized in Table 3, Groundwater Elevations and Sample Analytical Results.

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 by ATC 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 RECENT SITE CHARACTERIZATIONS

ATC prepared the Workplan for Remediation Well Installation and Feasibility Studies, dated December 21, 2001, to address the need for field feasibility testing. The Alameda County Health Care Services Agency (ACHCSA) approved the workplan in a letter dated March 11, 2002. A copy of the ACHCSA approval letter is included in Appendix A – Regulatory Correspondence. In accordance with the

Workplan, ATC installed one groundwater extraction well (EX-1), and three dual combination vapor extraction/air sparge wells (VEAS-1 through VEAS-3) on-site for the purposes of additional assessment and conducting pilot study activities. The remediation wells VEAS-1 through VEAS-3 were installed on June 20, 2002, and EX-1 was installed on June 24, 2002. This Corrective Action Plan (CAP) presents the assessment associated with the installation of remediation wells EX-1 and VEAS-1 through VEAS-3.

Groundwater extraction well EX-1 was installed to a total depth of approximately 35 feet, and was screened from 10 to 35 feet bgs. In VEAS-1 through VEAS-3, the two foot air sparge points were installed to depths of approximately 30 feet bgs, and the vapor extraction wells set at approximately 15 feet bgs, and screened from approximately 5 to 15 feet bgs. The remediation wells were strategically located in areas of known TPHg impacted-soil and groundwater, and geometrically fundamental locations for the purpose of conducting groundwater extraction, vapor extraction, and air sparge feasibility studies.

The location of the groundwater extraction well and each remediation well are illustrated on Figure 5, Site Plan with Geologic Cross-Section Lines. Well construction details are illustrated on Figure 6, Remediation Wells (VEAS-1 through VEAS-3) Construction Detail and Figure 7, Groundwater Extraction Well (EX-1) Construction Detail, and summarized in Table 2.

5.1 Groundwater Extraction Well Installation

Under the supervision of an ATC Scientist, EX-1 was installed within a 12-inch-diameter borehole, drilled vertically by a CME-75 hollow-stem auger drill rig, operated by Bay Area Exploration. The boring was drilled to approximately 35-feet bgs. EX-1 was constructed of 6-inch-diameter stainless steel casing with 0.020-inch slotted screen from 10 to 35-feet bgs and blank schedule 40 (Sch 40) poly vinyl chloride (PVC) casing from 10-feet bgs to grade. The annulus of the screened portion of EX-1 was backfilled with #3 silica sand filter pack from approximately 9 to 35-feet bgs. A surface seal was constructed using hydrated bentonite chips from 7 to 9-feet bgs, bentonite grout from 7 to 2-feet bgs, and cement from 2-feet bgs to grade. EX-1 was completed at ground surface within a watertight, flush-mounted, approved traffic-rated vault. All well construction material was delivered to the site new in factory-sealed containers and wrapping.

5.2 Dual Completion Vapor Extraction/Air Sparge Well Installation

Dual completion vapor extraction/air sparge wells VEAS-1 through VEAS-3 were installed under the supervision of an ATC Scientist in 10-inch-diameter boreholes drilled vertically by a CME-75 hollow-stem auger drill rig operated by Bay Area Exploration. The borings were drilled to approximately 30 feet below ground surface. The vapor extraction portion of the wells was constructed of a 4-inch PVC casing screened from 5 to 15 feet (0.020-inch slots). The air sparge portion of the dual wells was constructed of a 1-inch Schedule 80 PVC and a stainless steel air sparge tip screened from approximately 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 silica sand 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 created the necessary annular seals for the air sparge portion of the wells. Bentonite grout was placed from 15 to 25 feet bgs. 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.

5.3 Encountered Lithologies

Lithologies encountered while drilling remediation wells EX-1 and VEAS-1 through VEAS-3 predominately consisted of silty clay and clayey silt. Appendix B contains Method of Soil Classification, EX-1 and VEAS-1 through VEAS-3 boring logs, and the Non-Hazardous Waste Manifest for the transportation of the soil generated from the June 2002 drilling event. Appendix C outlines Standard Operating Procedures—Soil Borehole Drilling, Well Installation, Soil Sampling, and Field Soil Vapor Monitoring that governed the remediation well installation activities.

5.4 Analytical Testing

Representative soil samples were analyzed by Zymax Envirotechnology, Inc, (Zymax) a State-certified analytical laboratory. 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 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.

5.4.1 Soil Sample Analytical Results

During the remediation well installation activities, which took place on June 20 and June 24, 2002, twenty-four (24) soil samples were submitted to Zymax for analytical testing. Fourteen (14) 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 4, Remediation Wells, Soil Sample Analytical Results – Petroleum Hydrocarbons and Fuel Oxygenates.

TPHg was detected above the laboratory PQL, which varied from 0.5 to 50 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, which varied from 0.005 to 0.5 mg/kg, in five (5) soil samples, at a concentrations ranging from 0.006 mg/kg in soil sample EX-1/15' to 0.7 mg/kg in soil sample VEAS-1/20'. Toluene was not detected above the laboratory PQL, which varied from 0.005 to 0.5 mg/kg, in any of the soil samples.

Ethylbenzene was detected above the laboratory PQL, which varied from 0.005 to 0.5 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 Xylene constituents were detected above the laboratory PQL, which varied from 0.005 to 0.5 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 5.0 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. The vertical distribution of TPHg, benzene and MTBE in soil is presented on Figure 8, Geologic Cross-Section A-A' and Figure 9, Geologic Cross-Section B-B'. A summary of soil sample analytical results for this phase of work is provided in Table 4. Laboratory reports and chain-of-custody documentation is included in Appendix D.

6.0 VAPOR EXTRACTION PILOT TESTING

In order to assess the feasibility of implementing vapor extraction technology as a remedial measure for the site, field feasibility testing was necessary to evaluate the anticipated flow, radius of influence, vacuum requirements, and mass loading to the treatment unit. ATC prepared the *Workplan for Remediation Well Installation and Feasibility Studies*, dated December 21, 2001 to address the need for field feasibility testing. The Alameda County Health Care Services Agency (ACHCSA) approved a copy of the workplan in a letter dated March 11, 2002. A copy of the ACHCSA approval letter is included as Appendix A – Regulatory Correspondence.

6.1 Vapor Extraction Pilot Testing System and Procedure

Vapor Extraction Feasibility Testing (VEFT) was conducted on July 8, 2002. The VEFT utilized a pilot test trailer, consisting of a 250 cubic feet per minute (cfm) Solleco thermal oxidizer, positive-displacement (PD) blower powered by a 3-phase 7.5 horsepower (hp) motor, associated interlocking safety mechanisms, flow rate and vacuum measuring equipment, and a MiniRAE 2000™ Model PGM-7600 portable volatile organic combustibles (VOC) monitor. The VEFT was conducted in accordance with ATC's Standard Operating Procedures included in Appendix C.

During VEFT the maximum applied vacuum was applied to VE-1, VE-2, and VE-3 for target durations of approximately 3-hours each. The source wellhead vacuum, source well flow rate, and the induced wellhead vacuums were periodically measured and recorded throughout this phase of the VEFT. In addition, soil vapor samples were collected in Tedlar™ bags for laboratory analysis for TPHg, BTEX, and MTBE using Modified EPA Method 8260B, at the start, mid-points, and end of each 3-hour duration.

The VEFT utilized VE-1, VE-2 and VE-3 as source wells and various groundwater wells were used as observation wells. The construction of vapor extraction wells and groundwater monitor wells are

summarized in Table 2. The locations and identifications of the VEWs are depicted in Figure 5.

6.2 Vapor Extraction Pilot Testing Results

The maximum applied vacuum of source well VE-1 was >160 inches of water column (inwc). The observed VE-1 source well flow ranged from 52 to 68 actual cubic feet per minute (ACFM). Analytical results of the soil vapor samples collected during this phase of the VEFT yielded maximum TPHg, BTEX, and MTBE results of 1,100, 0.4, <0.2, 0.4, 1.9, and <0.2 ppmv, respectively. Oxygen (O_2) and Carbon Dioxide (CO_2) varied from 17.0 to 20.5 percent (%) and 1.11 to 4.04%, respectively. Methane (CH_4) and Carbon Monoxide (CO) was not detected above the laboratory detection limit of 0.05%. Monitoring well MW-4 had no measurable induced wellhead vacuum, at a distance of approximately 26 feet away. The source wellhead vacuum, source well flow rate, and the induced wellhead vacuums are summarized as Table 5, Soil Vapor Extraction Feasibility Test. Table 6, Vapor Sample Analytical Results summarizes the soil vapor analytical data collected during VEFT; copies of the original laboratory report and chain-of-custody documentation are presented in Appendix D.

The maximum applied vacuum at source well VE-2 was approximately 160 inwc. Source well flow was measured ranging from approximately 55 to 100 ACFM. Maximum TPHg, BTEX, and MTBE analytical results were reported at 1,100, 0.3, 0.4, 2.1, 3.0, and <0.2 ppmv, respectively. O_2 and CO_2 varied from 18.0 to 19.4% and 0.89 to 1.98%, respectively. CH_4 and CO were not detected. Monitoring well MW-4 had no measurable induced wellhead vacuum, and MW-3 had a maximum induced wellhead vacuum of 0.01, at distances of 26.5 and 20 feet, respectively. Field observations were recorded and are summarized as Table 5. Table 6 summarizes the soil vapor analytical data collected during this phase of the VEFT.

The maximum applied vacuum at source well VE-3 was approximately 150 inwc. Source well flow was measured ranging from approximately 59 to 64 ACFM. Maximum TPHg, BTEX, and MTBE analytical results were reported at 500, <0.2, 0.12, 0.33, 0.53, and <0.2 ppmv, respectively. O_2 and CO_2 varied from 20.2 to 20.5% and 0.57 to 1.55%, respectively. CH_4 and CO were not detected. Monitoring well MW-1A had no measurable induced wellhead vacuum, at a distance of 12 feet. Field observations were recorded and are summarized as Table 5. Table 6 summarizes the soil vapor analytical data collected during this phase of the VEFT.

6.3 Vapor Extraction Feasibility Study Discussion and Conclusions

During the VEFT, vacuum response data was developed by extracting soil vapor at the maximum applied vacuums of approximately >160, 160, and 150 inwc, at flow rates of approximately 68, 100, and 64 ACFM from wells VE-1, VE-2 and VE-3, respectively. The data collected demonstrates that significant vacuum influence (i.e., vacuum measured greater than 0.10 inches of water) was not developed at radial distances of approximately 26, 20, and 12 feet from source vapor extraction wells VE-1, VE-2, and VE-3, respectively. The data collected from the VEFT indicates that no usable radius of influence could be developed from VE-1, VE-2, or VE-3.

7.0 AIR SPARGE PILOT TESTING

In order to assess the feasibility of implementing air sparge technology as a remedial measure for the site, field feasibility testing was necessary to evaluate the needed sparging pressure, resultant flow, and radius of influence of an air sparging system at the site. The ATC workplan dated December 21, 2001 addressed the need for field feasibility testing.

7.1 Air Sparge Pilot Testing System and Procedure

Air Sparge Feasibility Testing (ASFT) was conducted on July 10, 2002. The ASFT utilized a trailer mounted 100 standard cubic feet per minute (SCFM) air compressor, pressure regulator, rotometers to measure flow, associated valves and piping, pressure measuring equipment, depth to water measurement equipment, dissolved oxygen measurement equipment, and a *MiniRAE 2000™ Model PGM-7600* portable volatile organic combustibles (VOC) monitor. The ASFT was conducted in accordance with ATC's Standard Operating Procedures included in Appendix C.

The ASFT was performed by injecting filtered compressed atmospheric air into the groundwater-saturated zone through an air sparge well and monitoring the responses at observation points. Groundwater levels and dissolved oxygen (DO) concentrations were measured at various observation wellheads prior to, and periodically during the ASFT. The ASFT was conducted at air sparge points AS-1, AS-2, and AS-3 for durations of approximately 2 hours, 7.5 hours, and 4.5 hours, respectively.

The ASFT conducted on July 10, 2002 utilized AS-1, AS-2, and AS-3 as sparge points. Extraction and monitor wells EX-1, MW-1, MW-1A, MW-3, MW-4, and MW-5 were used as monitoring points during the ASFT.

7.2 Air Sparge Pilot Testing Results

Beginning at 09:05, AS-2 was the first air sparge point used for the ASFT. Initial breakthrough of AS-2 was observed to occur at 8 pounds per square inch gage (psig). The pressure and corresponding flow rate varied throughout the test of AS-2, ranging from 6.5 to 8.0 psig and 8.7 and 16.8 SCFM, respectively. After approximately 3-hours of solo operation of AS-2, AS-3 was also pressurized. Initial breakthrough of AS-3 was observed to occur at 8 psig. The pressure and corresponding flow rate varied throughout the test of AS-3, ranging from 7.5 to 12.5 psig and 5.4 and 10.7 SCFM, respectively. After AS-2 and AS-3 were run simultaneously for 2.5 hours, AS-1 was also pressurized. Initial breakthrough of AS-1 was observed to occur at approximately 13 pounds per square inch gage (psig). The pressure and corresponding flow rate varied throughout the test of AS-1, ranging from 10.0 to 13.0 psig and 2.8 and 3.6 SCFM, respectively. All three AS wells were pressurized simultaneously for the remaining duration of approximately 2-hours.

DO concentrations were measured at monitoring points EX-1, MW-1, MW-1A, MW-3, MW-4, and MW-5 prior to, and at various intervals during, the ASFT. DO concentrations measured at monitoring point EX-1 during the ASFT ranged from 0.08 to 0.14 milligrams per liter (mg/l), and the groundwater elevation varied by a maximum of 0.07 feet (ft). DO concentrations measured at monitoring point MW-1

during the ASFT ranged from 0.08 to 0.11 mg/l, and the groundwater elevation did not change. DO concentrations measured at monitoring point MW-1A during the ASFT ranged from 0.06 to 0.12 mg/l, and the groundwater elevation varied by a maximum of 0.02 ft. DO concentrations measured at monitoring point MW-3 during the ASFT ranged from 0.08 to 0.14 mg/l, and the groundwater elevation varied by a maximum of 0.04 ft. DO concentrations measured at monitoring point MW-4 during the ASFT ranged from 0.08 to 0.12 mg/l, and the groundwater elevation varied by a maximum of 0.03 ft. DO concentrations measured at monitoring point MW-5 during the ASFT ranged from 0.09 to 0.16 mg/l, and the groundwater elevation did not change. Field observations for this portion of the ASFT were recorded and are summarized as Table 7, Air Sparge Feasibility Test.

7.3 Air Sparge Feasibility Study Discussion and Conclusions

Air sparge well AS-2 operated solo for approximately 3 hours, with immediate breakthrough at 8 psig. AS-3 operated simultaneously with AS-2 for approximately 2.5 hours, with immediate breakthrough at 8 psig. AS-1 operated simultaneously with AS-2 and AS-3 for approximately 2 hours, with immediate breakthrough at 13 psig. Significant DO concentrations (i.e., DO changes greater than 50 % of the initial baseline measurement) were not observed to occur at any of the monitoring points during the ASFT. The groundwater elevations in the wells either increased by a maximum of 0.07 ft from initial to final measurement.

Based on DO readings, and groundwater elevation changes during the ASFT, a specific radius of influence cannot be calculated. The lack of significant influence at the monitoring points is probably the result of site-specific lithology characteristics. The sparge tips of AS-1, AS-2, and AS-3 were installed in clayey silt, and the site, as a whole, contains large amounts of silty clay and silty sand. Based on remediation experience from other projects, this type of soil composition results in poor and unpredictable air flow. The air at this site flowed well, but was probably traveling through small channels of poorly graded sand and, since the monitoring wells were not placed in those channels, no influence was detected. The data collected from the ASFT indicates that air sparging is probably not an appropriate remedial alternative for this site.

8.0 AQUIFER PUMP TEST

In order to assess the feasibility of implementing groundwater extraction technology as a remedial measure for the site, field feasibility testing was necessary to evaluate the sustainable groundwater pumping flow rate, draw down radius of influence, aquifer hydraulic parameters such as hydraulic conductivity (K), transmissivity (T), and coefficient of storage (S), and mass loading to a possible treatment unit. The ATC workplan dated December 21, 2001 addressed the need for field feasibility testing.

8.1 Aquifer Pump Test System and Procedure

An aquifer pump test was performed at the site on July 9-10, 2002. The aquifer pump test consisted of a step rate pump test, and recovery test. Well EX-1 was utilized as the pumping well for the test. Wells EX-1,

MW-1A, MW-3, and MW-4 were utilized as observation wells. These wells were chosen because of their geometric locations. Data collected during the aquifer test was used to evaluate aquifer hydraulic parameters. The aquifer hydraulic parameter data will be used to evaluate groundwater remediation technologies. The Aquifer Pump Test was conducted in accordance with ATC's Standard Operating Procedures included in Appendix C.

The aquifer test was conducted using a submersible Grundfos® environmental pump with a check valve. A discharge hose was connected to the pump and extend to the holding tank. A flow meter/totalizer was installed to measure the flow rate and total gallons extracted during the test. A globe valve and pump controller was utilized to control the extraction flow rate. The pump was set approximately one foot from the bottom of the well to alleviate silting of the submersible pump. A portable generator was used as the electrical power source to operate and power the pump and associated measuring devices. Pressure transducers were installed in the pumping well (EX-1), in three groundwater observation wells (MW-1A, MW-3, and MW-4), and in an ambient pressure location (VE-2) to observe and regulate the pump test. The transducers were connected to a data logger to record and help interpret the collected data.

Prior to the start of work, a decontamination area was established. This area was secured and consisted of an Alconox® solution wash, a first rinse utilizing tap water, and a final rinse utilizing distilled water. Down hole equipment was decontaminated prior to, and after each use. Prior to equipment set-up, all wells were opened and allowed to stabilize before being monitored.

The step test was conducted in EX-1, the pumping well used for the aquifer test. Each step was intended to consist of pumping groundwater from the well EX-1 at a constant rate in an attempt to create a stabilized groundwater level. The flow rate was then increased in each subsequent step until the maximum sustainable flow rate was determined.

Prior to each phase of the aquifer pump test, the total gallons displayed on the flow meter/totalizer were recorded to determine the total number of gallons extracted during that phase. The pump and data loggers were turned on simultaneously at the start of each phase of the pumping test. The flow rate and data collected by the data logger was periodically monitored during the test. The duration of the step rate and constant rate aquifer pump tests were determined in the field based on the data collected and the constraints of the aquifer and equipment being used. Pumping duration for the step test and the constant discharge test was approximately 14-hours.

Once the step test was completed, the pump was shut off and the recovery test began. Prior to shutting off the pump, the data loggers were configured for the recovery portion of the aquifer test. The exact time and the total gallons displayed on the flow meter/totalizer were recorded. The pump was turned off and data logger stepped to collect recovery data. The duration of the recovery test was determined by the data collected. The recovery test was conducted for approximately 10-hours.

Extracted groundwater generated during the pumping test was temporarily stored on-site in a portable holding tank. An effluent water sample was collected during the pumping test. The analytical data could be

used to design a groundwater remediation system. Because groundwater was stored in a holding tank, appropriate samples were collected per disposal requirements. The water was removed to an appropriate disposal facility by a licensed transporter. The extracted groundwater was disposed of at Remedy Environmental Services, a State certified groundwater recycling facility located in Bakersfield, California. A copy of the disposal manifest is included in Appendix B.

8.2 Aquifer Pump Test Results

A maximum pump rate of approximately 11.25 gallons per minute (gpm) was observed and recorded during the step rate pump test conducted at EX-1 on July 9, 2002. EX-1 was not able to maintain a stabilized groundwater level at 11.25 gpm, a pseudo-asymptotic groundwater level was observed to occur after approximately 6 hours of pumping.

Beginning at 7:45 on July 9, 2002, a step rate pump test was initiated at well EX-1. A pump rate of approximately 0.55 gpm was maintained until 9:35 gpm. Through the rest of the day, the pump rate was increased each time a pseudo-asymptotic groundwater level was reached in EX-1. The pump rate was increased to 0.91 gpm until 10:35, 2.00 gpm until 12:12, 4.16 gpm until 14:00, 6.00 gpm until 16:15, 9.5 gpm until 17:55, and 11.25 gpm until 22:00. Although the pump rate was not increased from 9.5 gpm, between 16:15 and 22:00, an increased flow rate of 11.25 gpm was measured at 17:55. At 22:00, the pump was turned off and the recharge portion of the aquifer test began. By 7:30 on July 10, 2002, EX-1 was fully recharged to ambient groundwater levels observed prior to initiating the aquifer test.

Data collected during the variable rate discharge aquifer test was evaluated using various graphical and numerical methods, based on flow, which is assumed to be steady, well construction, which is partially penetrating, and aquifer type, which is unconfined. Analysis of the aquifer test data was conducted utilizing AQTESOLV, a computer software designed and distributed by HydroSOLVE, Inc.

The Theis Solution for pumping in an unconfined aquifer was used to evaluate transmissivity, storativity and hydraulic conductivity of the aquifer. Data requirements, including the pumping and observation well locations, pumping rates, observation well measurements of time and displacement, and aquifer saturated thickness were collected and utilized for the Theis solution. The least square fit Theis solutions for the two observation monitoring wells yielded transmissivities ranging from 7.636 square feet per minute (ft^2/min) to 12.9 ft^2/min, a storativity of 1E-10, and a hydraulic conductivity of 1 foot per minute (ft/min). Data sets of the raw and analyzed data, solutions, and standard normal deviate graphs are presented in Appendix E.

In addition to the field data observed and collected during the aquifer pump test, extracted groundwater samples were collected and analyzed by Zymax Envirotechnology using EPA Method 8260. An aqueous sample was collected from EX-1 at the beginning, midpoint, and end of the constant rate discharge test. Reported TPHg, BTEX, and MTBE analytical concentrations ranged from 1,300 to 3,800 ug/L, 31 to 83 ug/L, 0.8 to 21 ug/L, 6.5 to 160 ug/L, 100 to 240 ug/L, and 1.1 to 3.3 ug/L, respectively. An EX-1 aqueous sample was also analyzed for general minerals. Results of the analytical testing on the extracted groundwater are presented and summarized in Table 8A, Aquifer Test Analytical Groundwater Results -

General Minerals and Table 8B; Aquifer Test Analytical Groundwater Results, Groundwater Sample Analytical Results – Petroleum Hydrocarbons. Copies of the laboratory reports are included in Appendix D.

8.3 Aquifer Pump Test Discussion and Conclusions

The results of the Theis least square fit solutions are consistent with saturated lenses of coarse to fine-grained sediments sands within an unconfined water bearing alluvial sand. This is consistent with the reported lithology, hydrology, and hydrolithogy. The results of the Theis solutions provide a reasonable range of parameters that could be utilized for a remedial system design.

The radius of influence generated during the aquifer pump test performed on groundwater extraction well EX-1 can be calculated from the field data collected during the pump test. The reported hydraulic transmissivities ranging from approximately 7.636 ft^2/min to 12.9 ft^2/min, both of which are consistent with the generally accepted transmissivities ranging from 0.1 ft^2/min to 10 ft^2/min of the poorly graded sand, well-graded sand, and silty sand lithology of the water bearing zone. Based on the quality of the collected data, and comparison with typical transmissivities, the median transmissivity of 10 ft^2/min was chosen as a design transmissivity specific to the site. Different radii of influence specific to down gradient capture zones and cross-gradient capture zones can determined based of the pumping well volume rate (Q), transmissivity (T), and groundwater gradient (i).

The down gradient capture zone radius of influence (D_{down}), defined as

$D_{down} = Q/(2*Pi*T*i)$, is calculated to be 2.2 to 2.7 feet;

Based on observed aquifer test characteristics of Q=9.5 gallon per minute (gpm) to 11.25 gpm, respectively, T=10 ft^2/min, and i=0.009 feet per foot (ft/ft). The cross-gradient capture zone radius of influence (D_{cross}), defined as

$D_{cross}=Q/(T*i)$, is calculated to be 14 to 17 feet;

Based on Q=9.5 gpm or 11.25 gpm, T=10 ft^2/min, and i=0.009 ft/ft.

In addition to controlling the dissolved phase hydrocarbon impacted groundwater plume utilizing the established capture zones, groundwater extraction can effectively expose additional hydrocarbon-impacted soil that is occluded by higher groundwater levels from vapor extraction remedial treatment. After evaluating on-site historic groundwater elevations and phase separated hydrocarbon presence of VEAS-1, ATC established a smear zone of approximately 7.5 ft. This smear zone is the design draw down needed to expose the hydrocarbon-impacted soil that may be occluded by groundwater levels from vapor extraction.

Based on the following observed data collected during the groundwater extraction feasibility study:

Observation Well	Radial Distance from EX-1	Observed Draw Down
EX-1 (Natural Lithology)	0.5 feet	2.68 feet
MW-3	17 feet	0.90 feet
MW-1A	42 feet	0.48 feet

Exponential and natural logarithmic least square fit equations of $y=2.32e^{-0.04x}$ and $y=-0.43\ln(x)+2.1$, respectively, describe the observed draw down profiles with x as the draw down in feet and y being the radial distance from groundwater extraction well EX-1 in feet. Based on limited draw down of 2.68 feet observed in the pumping well EX-1 compared design draw down of 7.5 feet, it appears that a pump rate significantly exceeding the maximum pump rate of 11.25 gpm would be needed to address the ability of achieving the design draw down.

The values of the calculated hydraulic conductivity and groundwater yield suggest that the use of conventional groundwater gravity wells may not be an acceptable means of extracting groundwater to control plume migration or to expose hydrocarbon-impacted soil. The groundwater yield is too high for a system of this nature to be economically feasible.

9.0 REMEDIAL FEASIBILITY TESTING FINDINGS AND RECOMMENDATIONS

Based on field observations and laboratory analytical results collected during the remedial feasibility studies conducted at the site, ATC believes that the hydrocarbon impacted soil and groundwater cannot be remediated in-situ at the site using vapor extraction air sparge or groundwater extraction technology. The VEFT and ASFT testing shows that the soil lithology of the site will not allow for the development of an effective radius of influence for use in a vapor extraction or air sparging remediation system. The aquifer test produced a groundwater yield far too excessive for a system of that nature to be economically feasible. For these reasons, ATC recommends the source soils at the site be excavated. The extent of impacted soil is shown on Figure 5, Site Plan with Geologic Cross-Section Lines, Figure 8, Cross-Section A-A', and Figure 9, Cross-Section B-B'. ATC intends to excavate as much impacted soil as is feasible, while remaining within the property line of the site. Although the approximate limits of excavation are shown on Figure 10, Site Map with Proposed Remedial Excavation Limits, the actual limits will be determined on-site using a mobile lab, at the time of excavation.

10.0 RISK BASED CORRECTIVE ACTION REPORT RESULTS AND CONCLUSIONS

On behalf of Restructure Petroleum Marketing Services of California (RPMS-CA), ATC Associates Inc. (ATC) prepared a Risk Based Corrective Action Report, dated August 2002, detailing the procedures, results, and conclusions of the risk based corrective action (RBCA) assessment of the subject site. This RBCA assessment is consistent with the American Society of Testing and Materials Standard Provisional Guide for Risk Based Corrective Action (ASTM, 1998) and current United States Environmental Protection Agency guidelines (U.S. EPA, 1989a; 1996). The RBCA assessment utilized the RBCA Tool Kit for Chemical Releases, in conjunction with site-specific environmental data, to determine risk and associated clean-up goals for the subject site. Four site conceptual models were developed by defining, and including, possible primary, secondary, and tertiary sources, release mechanisms, exposure routes, and receptors in the RBCA calculations. Based on these factors, the software was able to approximate what risk might be associated with the contamination on-site. The site was modeled, using Tier 1 and Tier 2 analyses, for conditions before and after the proposed excavation.

The Tier 1 models show that removing contaminated soil will result in a definite decrease in Carcinogenic Risk values and Toxic Effect values. Although the Tier 2 models show the same result, more emphasis should be placed on these results since they encompass more detail and, therefore, are more accurate representations of the site situation. The Tier 2 analyses show that removing the on-site contaminated soil will cause all values, except one, on the Baseline Risk Summary to drop below their respective limits. The Individual Constituent of Concern (COC) Risk Maximum Value, for Groundwater Exposure Pathways, is 0.0000038 and its Target Risk is 0.000001. There is still a risk of groundwater contamination 300 ft from the site. The Groundwater Site-Specific Target Levels (SSTL) will show that Benzene is the constituent of primary concern. It is the only COC in groundwater that exceeds its Applicable SSTL, before or after excavation. Although, after excavation, its Corrective Reduction Factor (CRF) is reduced, so the risk is decreased.

Based on the results of the RBCA Site Assessment, ATC believes that excavation is an effective means of remediation for the site in question. Analysis shows that this action will significantly reduce the risk posed by the COCs in the groundwater. Excavation, in itself, will not eliminate all risk, however, so ATC plans to place a layer of Oxygen Release Compound (ORC) on the floor of the excavation, prior to placement of the backfill material. The ORC material will help promote biodegradation of any residual petroleum hydrocarbon constituents.

11.0 SCOPE OF WORK

Due to the small radius of influence of vapor extraction and air sparging, and the high groundwater yield, ATC proposes to excavate source soils at the site in an effort to mitigate the further migration of highly concentrated dissolved fuel hydrocarbons in groundwater from the site. Doing this will involve the following:

1. Conduct a field reconnaissance to verify locations of additional sensitive receptors and conduct a utility survey utilizing local government and private agencies as well as a private geophysical utility location.

2. Conduct remedial excavation activities at the subject site. It is anticipated that at least six on-site wells will be abandoned during the remedial excavation activities. This includes wells MW-1, MW-3, MW-4, MW-5, MW-6, and VEAS-1. It may be decided, at the time of excavation, that more wells need to be abandoned. This decision will be based on results from an on-site mobile lab.

3. Install wells MW-15 through MW-19 on-site to replace the abandoned wells. Replacement wells will be installed for all monitoring wells abandoned during excavation. No replacement will be installed for VEAS-1, as ATC has already determined that vapor extraction and air sparging are ineffective on this site.

The scope of work includes: preparation of a Health and Safety Plan, site reconnaissance, negotiation of access agreements with the private property owners in the vicinity of the site, well installation permitting (including City of Hayward encroachment, excavation and traffic control), remedial excavation activities, drilling, groundwater monitor well abandonment and installation, soil sampling (for lithologic logging lateral and vertical delineation of capillary fringe soils and waste characterization), quarterly groundwater gauging and sampling, organic vapor monitoring, analytical chemistry, data interpretation and report preparation. Each part is described below.

11.1 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 site specific Health and Safety Plan (HASP). ATC will prepare, approve and implement a HASP for this project. All individuals working under the purview of ATC will be required to read and sign the HASP to acknowledge their understanding of the information contained in it. The HASP will be site-specific and task-specific, describing hazardous conditions that may be encountered and prescribing the necessary safety protocols to protect employees from these hazards. The HASP will be reviewed by the project management team and then reviewed/approved for field use by the Site Safety and Health Officer. The HASP will be implemented and enforced on site by the assigned Site Safety and Health Officer. ATC will prepare a comprehensive Health and Safety Plan based on the scope of work and the potential hazards described in this workplan.

At a minimum, the HASP will identify: 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 HASP 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 will provide continual evaluation of all potentially hazardous conditions, as the project is undertaken and prescribe additional safety protocols to protect site personnel as needed.

11.2 Permitting

ATC will complete six well permits to abandon wells MW-1, MW-3, MW-4, MW-5, MW-6, and VEAS-1, and five well installation permits to drill MW-15 through MW-19, and obtain the necessary groundwater monitoring well construction variances from the County of San Diego Department of Environmental Health prior to abandonment and installation activities.

Applicable permits will be obtained from the City of Hayward to install groundwater monitoring wells and to conduct remedial excavation activities. At a minimum, it is expected that excavation permits will be required. Traffic control plans and permits will be required for all proposed work on West A Avenue and Garden Street.

11.3 Utility Survey

ATC proposes to conduct a utility survey for the site vicinity. A private geophysical surveyor will be contracted to identify and confirm the location of public and private utilities in the proposed drilling and excavation areas. The depth and location of all utilities will be discerned and presented on a figure and will be used to locate MW-15 through MW-19 prior to drilling activities.

11.4 Remedial Excavation Activities

The proposed limits of the excavation are presented on Figure 10 and are based on analytical data of soil samples collected from soil borings advanced at the site. It is anticipated that approximately 3,700 cubic yards of hydrocarbon-impacted soil will be removed from the site. It is anticipated that the depth of the excavation will be approximately 15 feet and may extend to a depth of 20 feet in select areas. The exact limits of the excavation will be determined in the field and will depend on visual and olfactory observations and the results of soil analytical data obtained during the investigation.

Soil excavation activities will be conducted using a backhoe or track-mounted excavator. Fuel hydrocarbon-impacted soil will be identified by hydrocarbon staining and odors. A portable organic vapor analyzer (OVA) or photo-ionization detector (PID) will be used to monitor the presence of volatile organic compounds (VOCs) in soil and to assess ambient air quality. Ambient air in the downwind direction will be monitored every 30 minutes. Vapor suppression measures will be implemented in the event that instrument readings exceed 50 parts per million (ppm) in down-wind locations adjacent to the excavation.

During the course of excavation operations, soil samples will be collected from the sidewalls and bottom of the excavation to confirm removal of the hydrocarbon-impacted soil. The amount of soil samples collected will be in accordance with County of Alameda guidelines. Soil samples will be collected from undisturbed soil within the backhoe or excavator bucket with a hand trowel. Each soil sample will be placed into a glass jar, capped tightly with a Teflon-lined lid, and relinquished to an on-site mobile laboratory. All soil samples will be analyzed for TPHg, benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl-tertiary-butyl ether (MTBE) in accordance with Environmental Protection Agency (EPA) Test Method 8015M and 8020, respectively.

All soil sampling equipment will be washed in a solution of non-phosphate detergent and water, rinsed with tap water, and final rinsed in de-ionized water to prevent cross-contamination between sampling locations.

Once initial mobile laboratory analytical results are obtained, fuel hydrocarbon-impacted soil will be loaded directly from the excavation into truck trailers and transported off-site to an appropriate treatment/recycling facility under non-hazardous waste manifests. No hydrocarbon-impacted soil will be stored on-site in stockpiles. Hydrocarbon-impacted soil will be identified on the basis of visual and olfactory observations, OVA or PID monitoring results, and soil analytical results. Non hydrocarbon-impacted soil will be segregated and temporarily stored on-site until excavation operations are complete. The soil stockpiles will be covered with visqueen prior to completion site operations every day. Pending confirmatory analytical results, the soil will be used to fill the excavation. It will be placed over imported fill material that will replace the contaminated soil.

Prior to placement of backfill material, a layer of Oxygen Release Compound (ORC) will be placed on the floor of the excavation. The ORC material will help promote biodegradation of any residual petroleum hydrocarbon constituents. Backfill material will be compacted to 90% maximum dry density as specified by ASTM Test Method D1557-78. Backfill will be compacted in lifts not to exceed two feet. During compaction, the moisture content of the backfill shall not exceed plus or minus 2% of the optimum moisture content of the soil.

It is anticipated that groundwater will be encountered during excavation activities. Existing groundwater monitoring wells will be used to de-water sections of the site prior to excavation activities. Any groundwater accumulated within the excavation limits will be removed via a submersible trash pump. All groundwater generated during remedial excavation activities will be stored in a 5,000 gallon capacity aboveground storage tank to be located at the site. At the conclusion of the remedial excavation activities, the groundwater within the storage tank will be sampled, transported under a non-hazardous waste manifest, and disposed of properly off-site at a licensed treatment/recycling facility.

A summary report documenting the procedures and findings of the remedial excavation activities will be prepared and submitted to the County of Alameda. The report will contain tabulated soil analytical results, figures showing the limits of the excavation activities, non-hazardous waste manifests for soil and

groundwater, and will be reviewed and signed by State of California registered Geologist or Civil Engineer. The report written and be compiled in accordance with County of Alameda guidelines.

11.5 Drilling and Soil Sampling

Prior to drilling the soil borings ATC will contact Underground Service Alert (USA) and a private geophysical utility locator service to locate identifiable utilities in the vicinity of the proposed boring locations. Following utility clearance, drilling will be scheduled. ATC proposes to utilize a hollow-stem auger-drilling rig equipped with 10-inch diameter auger. Additional details are provided below.

ATC proposes to drill wells MW-15 through MW-19 on-site in strategic locations to replace MW-1, MW-3, MW-4, MW-5, and MW-6. The aforementioned wells are expected to be abandoned during the proposed remedial excavation activities. The proposed locations for MW-15 through MW-19 are presented on Figure 10.

Based on available depth to groundwater data, all the proposed wells will be drilled to a total depth of 30 feet bgs. Proposed groundwater monitoring well construction details for MW-15 through MW-19 are illustrated on Figure 11.

The soil borings will be drilled, sampled and completed as groundwater monitor wells in general accordance with the most recent version of the SAM Manual and 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 will be collected at 5 to 10 feet intervals from the borings and at the capillary fringe. All drill cuttings will be contained in properly labeled 55-gallon drums and will remain on-site pending proper disposition. If a boring is not completed as a well (for example, if unable to advance boring to groundwater), it will be backfilled through a tremie pipe with bentonite grout from total depth to the surface. An ATC staff scientist will complete 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 an edited boring log are included in Appendix B.

11.6 Organic Vapor Monitoring

To obtain preliminary data regarding potential petroleum hydrocarbon-impacted soil, a representative sample will be collected at each soil sampling location and field screened for volatile organic vapors in general accordance with ATC's Standard Operating Procedure - Field Soil Vapor Monitoring, which is included in Appendix C. Organic vapor meter readings will be recorded in the boring logs.

11.7 Well Installation, Surveying, and Development

Following completion of proposed borings MW-15 through MW-19, the borings will be completed as groundwater monitor wells. The proposed construction of MW-15 through MW-19 will consist of 10 feet (surface to 10 feet bgs) of blank 4-inch, Schedule 40 PVC casing, and 20 feet of slotted (0.020-inch slots) 4-inch Schedule 40 PVC well screen.

The annulus of the screened portions of the wells will be backfilled with a #3 Monterey sand (or equivalent) filter pack from approximately 8 to 30 feet bgs. A 5-foot layer of bentonite pellets will be placed on top of the upper filter pack and hydrated to form an annular seal. Prior to placement of the bentonite seal, the well will be surged for approximately 5 minutes to ensure proper settlement of the filter pack material. Any drop in filter pack level will be compensated for prior to the placement of the bentonite seal. The remaining annular space to the surface will be filled with concrete. The well will be completed at the ground surface with a watertight, flush-mounted, City and County-approved traffic-rated vault set within a three-foot diameter concrete perimeter seal. Construction details are illustrated in *Figure 11. All well casing and screen will be delivered to the site in factory-sealed containers.*

Following well completion, the newly installed groundwater monitoring wells (MW-15 through MW-19) will be developed by a combination of surging and bailing groundwater from the well. Groundwater purged from the wells will be contained in labeled 55-gallon DOT-approved drums. Development water will be contained in labeled 55-gallon DOT-approved drums and remain on-site pending proper disposition. The groundwater monitoring wells will be 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 surveyor will be contracted to survey the locations and elevation of the newly installed groundwater monitoring wells. The location and elevation of measuring marks on the north side of each well head will be surveyed to a benchmark to the nearest 0.01 foot relative to mean sea level by the licensed surveyor in order to more accurately determine the local groundwater flow direction beneath the site. Additionally, because of the variability of data observed from previous surveys, ATC proposes to have the locations and elevations of the previously installed groundwater monitor wells also surveyed at this time. In addition, in accordance with Article 12 (Section 2729.1) of Chapter 16, Division 3, Title 23 of the California Code of Regulations (CCR), the latitude and longitude of each groundwater monitoring well will be measured with a Global Positioning Device to an accuracy of one meter.

11.8 Groundwater Monitoring

Because of the anticipated time frame to obtain access agreements from the City of Hayward, in the interim, ATC proposes to continue quarterly groundwater gauging, sampling and PSH removal (if necessary) activities for all existing groundwater monitoring wells. Following remedial excavation activities, concurrent abandonment of MW-1, MW-3, MW-4, MW-5, MW-6, and VEAS-1, and installation and development of the newly installed groundwater monitor wells MW-15 through MW-19, ATC proposes to gauge, purge and collect groundwater samples from groundwater monitoring wells MW-15 through MW-19, MW-10, and MW-14 during the subsequent quarterly groundwater sampling events.

Assuming that PSHs are not present, following measurement of the static water levels in each well and purging an appropriate volume of groundwater, a representative groundwater sample will be collected from the well in general accordance with ATC's Standard Operating Procedure - Groundwater Monitoring, Well Purging, And Sampling, which is included in Appendix C. ATC proposes to sample all

of the wells in the well network on a quarterly basis for a period of one year. Quarterly groundwater monitoring reports will be prepared and submitted to the ACHCSA. The reports will summarize the quarterly groundwater elevation measurements, calculated flow direction and gradient, and analytical results of the quarterly sampling.

11.9 Analytical Testing

Analyses of soil and groundwater samples will be performed by a State-certified laboratory. ATC proposes to analyze three selected soil samples from each of the five soil borings (15 samples total). Soil samples will be selected for analysis based on field screening criteria including OVA/PID readings, visual and olfactory observations. One of the samples from each boring submitted for analysis will be collected from the capillary fringe. Soil samples will be analyzed for TPHg, BTEX, and MTBE in accordance with EPA Test Method 8260B.

Quality Assurance and Quality Control (QA/QC) procedures, sample preservation, apparatus required, and analyses performed will be 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.

11.10 Data Evaluation and Report Preparation

Results of the site investigation will be documented in a written report. The report will include a tabular summary of analytical data, boring logs, groundwater sample logs, and figures illustrating the locations of the investigation. ATC will evaluate the data and present written recommendations for future activities if warranted. The report and supporting information will be reviewed by ATC project management personnel prior to delivery.

12.0 ASSUMPTIONS

- ATC will not be responsible for any unforeseen conditions (i.e., shallow groundwater conditions, hard soils or cobbles, unknown utilities).
- ATC shall have unrestricted site access and will not be limited to specific working hours.
- The project costs and schedules do not include allowance for delays or standby time due to inclement weather, facility access restrictions or other factors beyond the control of ATC.
- Nothing contained within this workplan shall be construed or interpreted as requiring ATC to assume the status of a generator, transporter, storer, treater, or disposal facility as those terms appear within the Resource Conservation Recovery Act, 42 USCA, Section 6901 et seq., as amended, or within any state statute governing the treatment, storage, and disposal of hazardous waste.
- ATC may recommend additional work or disposal activity. This workplan does not include any work that may be recommended based on the results of this project. ATC will provide a supplemental work plan for additional recommended assessment services.

13.0 WORK SCHEDULE

Following receipt of the ACHCSA approval of the work plan, ATC will seek pre-approval for the implementation of the work plan from the California Underground Storage Tank Cleanup Fund. Upon receipt of pre-approval, ATC can initiate the project within 5 days. ATC anticipates that site access negotiations, well permitting, and the utility survey should take approximately 60 days. Performance of the remedial excavation activities should take approximately 30 days. Well installation and development fieldwork should take approximately 10 to 15 days. Groundwater analytical test results should be received within 10 - 15 working days of sample delivery. Data interpretation and report preparation are expected to take 30 to 45-working days. Subsequent groundwater monitoring quarterly reports will be submitted by the 30th day of the month following the end of the previous quarter. The estimated project schedule does not include allowances for delays or standby time due to inclement weather, facility access problems or other factors beyond the control of ATC.

The remedial excavation activities need to be coordinated with Mr. Vinod Vansal, property owner. The timing of these activities is unknown at this time. Therefore, ATC proposes to initiate the utility survey, and continue quarterly groundwater monitoring activities as soon a practical following pre-approval

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	1/28/92	Sand	<0.5	0.12	<0.005	0.0073	0.0053
MW-1	16.0-16.5	1/28/92	Clay	19	0.98	0.013	0.17	0.35
MW-2	11.0-11.5	1/28/92	Silty Sand	<0.5	<0.005	<0.005	<0.005	<0.005
MW-2	16.0-16.5	1/28/92	Clay	5.4	<0.005	<0.005	1.1	0.057
MW-3	11.0-11.5	1/28/92	Silty Sand	5.6	0.69	<0.005	0.048	0.013
MW-3	16.0-16.5	1/28/92	Clay	6.4	1.0	<0.005	0.13	0.078
MW-4	6.0-6.5	1/28/92	Silty Sand	28	0.035	<0.024	0.4	1.6
MW-4	11.0-11.5	1/28/92	Silty Sand	5.7	0.22	0.076	0.17	0.64
MW-4	16.0-16.5	1/28/92	Clay	15	2.7	1.2	0.39	1.8
MW-5	11.0-11.5	1/28/92	Silty Sand	0.79	0.3	<0.005	0.049	0.019
MW-5	16.0-16.5	1/28/92	Clay	7.2	0.66	0.016	0.16	0.55
MW-6	11.0-11.5	1/28/92	Silty Sand	<0.5	0.0076	<0.005	<0.005	0.0052
MW-6	16.0-16.5	1/28/92	Clay	0.55	0.17	<0.005	0.016	0.021
MW-7	5	6/21/93	Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-7	10	6/21/93	Silty Sand	<0.5	<0.005	<0.005	<0.005	<0.015
MW-7	15	6/21/93	Silty Clay	0.5	0.012	<0.005	0.038	<0.015
MW-8	5	6/22/93	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-8	10	6/22/93	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-8	15	6/22/93	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-9	5	6/22/93	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-9	10	6/22/93	Silty Sand	<0.5	0.015	<0.005	<0.005	<0.015
MW-9	15	6/22/93	Clay	9	0.13	0.027	0.19	0.76

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-10	5	6/22/93	Silty Clay	<0.5	<0.005	<0.005	<0.005	<0.015
MW-10	10	6/22/93	Sandy Silt	<0.5	0.016	<0.005	<0.005	<0.015
MW-10	15	6/22/93	Clay	0.59	0.0089	<0.005	0.051	0.015
MW-11	10	2/6/95	Silty Sand	<100	<1	<1	2	5
MW-11	15	2/6/95	Clayey Sand	100	<1	<1	2	5
MW-12	10	2/6/95	Sandy Clay	310	<1	<1	1	4
MW-12	15	2/6/95	Sandy Clay	<100	<1	<1	<1	1
MW-13	10	2/7/95	Sandy Silt	<100	<1	<1	<1	<1
MW-13	15	2/7/95	Clayey Sand	<100	<1	<1	<1	11
MW-14	10	2/7/95	Silty Sand	<100	<1	<1	<1	<1
MW-14	15	2/7/95	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	--
	3/10/95	41.75	14.67	27.08	0.00	--	--	--	--	--	--
	3/15/95	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	--	--	--	--	--	--
	3/10/95	43.40	15.83	27.57	0.00	--	--	--	--	--	--
	3/15/95	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	--	--	--	--	--	--

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	3/15/95	43.26	16.89	26.37	0.00	29,000	5,600	350	1,900	6,300	--
(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[2]	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

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	11/7/01[2]	42.76	16.81	25.95	0.00	6,000	710	20	630	190	27
(Cont.)	1/30/02	42.76	14.60	28.16	0.00	4,800	830	16	600	61	42
	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[2]	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	--

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	7/1/94	42.70	18.72	23.98	0.00	3,100	180	99	160	520	--
(Cont.)	9/20/94	42.70	21.41	21.29	0.00	6,100	540	6	750	730	--
	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	--
	3/10/95	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	--
	3/10/95	97.11	15.37	81.74	0.00	--	--	--	--	--	--
	3/14/95	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

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-11	12/4/96	92.68	--	--	--	--	--	--	--	--	--
(Cont.)	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.							
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	<	<	<
	12/4/96	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

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.

TOC = Top of casing referenced to USGS benchmark [elevation = 48.50 feet above mean sea level].

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).

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)

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).

< = 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 refrence.

-- = Not measured, surveyed, sampled, or analyzed.

TABLE 4
ADDITIONAL SITE ASSESSMENT
REMEDIATION WELLS
SOIL SAMPLE ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS AND FUEL OXYGENATES
FORMER E-Z SERVE LOCATION NO. 100877
ATC JOB NO. 43.25827.0024

Soil Sample Identification	Sampling Date	TPHg EPA 8260B (mg/kg)	Benzene EPA 8260B (mg/kg)	Toluene EPA 8260B (mg/kg)	Ethylbenzene EPA 8260B (mg/kg)	Total Xylenes EPA 8260B (mg/kg)	TAME EPA 8260B (mg/kg)	TBA EPA 8260B (mg/kg)	DIPE EPA 8260B (mg/kg)	ETBE EPA 8260B (mg/kg)	MTBE EPA 8260B (mg/kg)
EX-1/10'	6/24/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/15'	6/24/2002	<0.5	0.006	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/20'	6/24/2002	100	<0.1	<0.1	0.7	1.6	<0.1	<1.0	<0.1	<0.1	<0.1
EX-1/25'	6/24/2002	1.1	<0.005	<0.005	0.009	0.017	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/30'	6/24/2002	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
EX-1/35'	6/24/2002	<0 5	<0.005	<0.005	<0.005	0.007	<0.005	<0.05	<0 005	<0.005	<0 005
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

TABLE 4
ADDITIONAL SITE ASSESSMENT
REMEDIATION WELLS
SOIL SAMPLE ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS AND FUEL OXYGENATES
FORMER E-Z SERVE LOCATION NO. 100877
ATC JOB NO. 43.25827.0024

Soil Sample Identification	Sampling Date	TPHg EPA 8260B (mg/kg)	Benzene EPA 8260B (mg/kg)	Toluene EPA 8260B (mg/kg)	Ethylbenzene EPA 8260B (mg/kg)	Total Xylenes EPA 8260B (mg/kg)	TAME EPA 8260B (mg/kg)	TBA EPA 8260B (mg/kg)	DIPE EPA 8260B (mg/kg)	ETBE EPA 8260B (mg/kg)	MTBE EPA 8260B (mg/kg)
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

Notes:

TPHg	Total petroleum hydrocarbons characterized as gasoline; analyzed by EPA method 8260B
TAME	Tert-amyl methyl ether
TBA	Tert-butyl ether
DIPE	Di-isopropyl ether
ETBE	Ethyl tert-butyl ether
MTBE	Methyl-tertiary-butyl ether; analyzed by EPA 8260B
<#	Less than the detection limit shown
µg/kg	micrograms per kilogram (parts per billion)

TABLE 5
SOIL VAPOR EXTRACTION FEASIBILITY TEST
FORMER E-Z SERVE LOCATION NO. 100877
ATC JOB NO. 43.25827.0024

DATE: July 8, 2002

TIME (2400)	SOURCE WELLHEAD VACUUM (IN WC)			SOURCE WELL FLOW (ACFM)			INDUCED RESPONSES							
							EX-1		MW-1A		MW-3		MW-4	
	VE-1	VE-2	VE-3	VE-1	VE-2	VE-3	DTW	IN WC	DTW	IN WC	DTW	IN WC	DTW	IN WC
7:00	0	160	0	0	55	0	16.11	NM			16.2	0.00	15.68	0.00
7:07	0	55	0	0	100	0	16.11	NM			16.2	0.005	15.68	0.00
7:30	0	55	0	0	99	0	16.12	NM			NM	0.01	15.7	0.00
8:00	0	55	0	0	100	0	16.12	NM			NM	0.01	NM	0.00
8.30	0	110	0	0	73	0	16 12	NM			NM	0.01	NM	0.00
9:05	0	120	0	0	67	0	16.13	NM			NM	0.01	NM	0.00
9:30	0	125	0	0	69	0	16.13	NM			NM	0.01	NM	0.00
10:00	0	125	0	0	68	0	16.13	NM			NM	0.01	NM	0 00
10:15	0	0	144	0	0	59			NM	0.00				
10:30	0	0	150	0	0	62			NM	0.00				
11:00	0	0	140	0	0	63			NM	0.00				
11:30	0	0	140	0	0	63			NM	0.00				
12.00	0	0	135	0	0	63			NM	0.00				
12:30	0	0	132	0	0	64			NM	0.00				
13:00	0	0	132	0	0	63			NM	0.00				
13·15	0	0	132	0	0	64			NM	0.00				
13:30	>160	0	0	52	0	0							NM	0.00
14:00	150	0	0	60	0	0							NM	0.00
14:30	145	0	0	63	0	0							NM	0.00
15:00	145	0	0	62	0	0							NM	0.00
15:30	135	0	0	64	0	0							NM	0.00
16:00	132	0	0	64	0	0							NM	0.00
16:30	125	0	0	68	0	0							NM	0.00
DISTANCE FROM VE-1 (FEET)							56.0		87.5		64.0		26.0	
DISTANCE FROM VE-2 (FEET)							19.0		59.0		20.0		26.5	
DISTANCE FROM VE-3 (FEET)							31.0		12.0		46.5		NM	

NOTES:
1) IN WC - inches of water column
2) ACFM - actual cubic feet per minute
3) DTW - depth to water in feet below top of casing
4) NM - not measured or not applicable

TABLE 6
VAPOR SAMPLE ANALYTICAL RESULTS
FORMER E-Z SERVE LOCATION NO. 100877
ATC JOB NO. 43.25827.0024

Sample Identification	Sample Date	Sample Time	TPHg (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MTBE (ppmv)	O_2+Ar (% volume)	N_2 (% volume)	CH_4 (% volume)	CO (% volume)	CO_2 (% volume)
VE-1#1	7/8/02	13:30	520	<0.2	<0.2	0.4	1.9	<0.2	17.0	79.0	<0.05	<0.05	4.04
VE-1#2	7/8/02	15:00	510	<0.2	<0.2	<0.2	0.5	<0.2	20.5	78.4	<0.05	<0.05	1.11
VE-1#3	7/8/02	16:30	1,100	0.4	<0.2	0.4	1.4	<0.2	19.0	78.6	<0.05	<0.05	2.41
VE-2#1	7/8/02	7:00	910	<0.2	<0.2	1.4	2.0	<0.2	19.4	78.7	<0.05	<0.05	1.98
VE-2#2	7/8/02	8:30	920	0.3	<0.2	2.1	3.0	<0.2	18.0	80.92	<0.05	<0.05	1.08
VE-2#3	7/8/02	10:00	1,100	0.3	0.4	2.0	3.0	<0.2	18.4	80.7	<0.05	<0.05	0.89
VE-3#1	7/8/02	10:15	500	<0.2	<0.2	0.3	0.5	<0.2	20.5	78.4	<0.05	<0.05	1.55
VE-3#2	7/8/02	11:45	250	<0.05	0.12	0.27	0.46	<0.05	20.2	79.2	<0.05	<0.05	0.66
VE-3#3	7/8/02	13:15	390	<0.05	0.09	0.33	0.53	<0.05	20.2	79.2	<0.05	<0.05	0.57

NOTES:

1) Samples were analyzed for total recoverable petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) in general accordance with EPA Method 8260B.

2) ppmv - parts per million by volume

TABLE 7
AIR SPARGE FEASIBILITY TEST
FORMER E-Z SERVE LOCATION NO. 100877
525 WEST A STREET, HAYWARD, CALIFORNIA

DATE: July 10, 2002

TIME (2400)	AIR SPARGE WELL PRESURE (psig)			AIR SPARGE WELL FLOW (SCFM)			INDUCED RESPONCES											
							EX-1		MW-1		MW-1A		MW-3		MW-4		MW-5	
	AS-1	AS-2	AS-3	AS-1	AS-2	AS-3	DTW	DO	DTW	DO	DTW	DO	DTW	DO	DTW	DO	DTW	DO
8:00	0.0	0.0	0.0	0.0	0.0	0.0	16.12	0.08	15.20	0.11	16.11	0.10	16.20	0.14	15.68	0.09	15.36	0.16
9:05	0.0	8.0	0.0	0.0	9.6	0.0	16.11	0.12	15.20	0.08	16.10	0.06	16.18	0.14	15.69	0.10	15.36	0.12
9:20	0.0	8.0	0.0	0.0	9.6	0.0	16.10	0.12	15.20	0.09	16.10	0.07	16.19	0.08	15.70	0.08	15.36	0.09
9:50	0.0	7.5	0.0	0.0	9.5	0.0	16.05	0.08	15.20	0.11	16.10	0.07	16.18	0.11	15.70	0.10	15.36	0.10
10:30	0.0	7.0	0.0	0.0	9.2	0.0	16.12	0.08	NM	NM	NM	NM	16.21	0.09	15.70	0.09	NM	NM
11:00	0.0	7.0	0.0	0.0	8.8	0.0	16.08	0.11	NM	NM	NM	NM	16.20	0.09	15.70	0.10	NM	NM
11:30	0.0	7.0	0.0	0.0	8.7	0.0	16.05	0.09	NM	NM	NM	NM	16.19	0.11	15.70	0.11	NM	NM
12:00	0.0	9.0	8.0	0.0	16.6	5.4	16.10	0.10	NM	NM	16.10	0.09	16.18	0.12	15.70	0.10	NM	NM
12:15	0.0	9.0	8.0	0.0	16.8	5.4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12:30	0.0	8.5	7.5	0.0	16.8	5.4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
13:00	0.0	8.0	7.5	0.0	16.8	5.5	16.10	0.14	NM	NM	16.10	0.11	16.19	0.12	15.70	0.11	NM	NM
13:30	0.0	8.0	7.5	0.0	16.8	5.5	16.10	0.12	NM	NM	16.10	0.11	16.19	0.10	15.69	0.11	NM	NM
14:30	13.0	7.0	12.5	2.8	12.8	10.7	16.10	0.12	NM	NM	16.09	0.12	16.17	0.10	15.68	0.12	NM	NM
15:00	11.0	7.0	11.0	3.3	12.8	10.4	16.10	0.11	NM	NM	16.10	0.10	16.19	0.11	15.67	0.11	NM	NM
15:30	10.0	6.5	10.0	3.5	12.8	10.0	16.10	0.11	NM	NM	16.10	0.10	16.20	0.11	15.68	0.11	NM	NM
16:25	10.0	7.0	10.0	3.6	12.6	10.2	16.11	0.11	NM	NM	16.10	0.09	16.20	0.11	15.68	0.11	NM	NM
DISTANCE FROM VE-1 (FEET)							56.0		NM		87.5		64.0		26.0		NM	
DISTANCE FROM VE-2 (FEET)							19.0		NM		59.0		20.0		26.5		NM	
DISTANCE FROM VE-3 (FEET)							31.0		NM		12.0		46.5		NM		NM	

NOTES:

1) psig - pounds per square inch gage
2) SCFM - standard cubic feet per minute
3) DTW - depth to water in feet below top of casing
4) DO - dissolved oxygen concentration in milligrams per liter
5) NM - not measured or not applicable

TABLE 8A
AQUIFER TEST ANALYTICAL GROUNDWATER RESULTS
GENERAL MINERALS
FORMER EZ-SERVE LOCATION NO. 100877
525 WEST A STREET, HAYWARD, CALIFORNIA

CONSTITUENT	UNITS	RESULTS
Total Alkalinity	mg/L CaCO3	440
Hydroxide Alkalinity	mg/L CaCO3	<5.0
Carbonate Alkalinity	mg/L CaCO3	<5.0
Bicarbonate Alkalinity	mg/L CaCO3	440
Hardness	mg/L CaCO3	570
Specific Conductance	umhos/cm	1,300
pH	pH Units	6.9
Total Dissolved Solids	mg/L	790
Chloride	mg/L	130
Nitrite as Nitrogen	mg/L	<0.4
Nitrate as Nitrogen	mg/L	7.9
Sulfate	mg/L	54
Calcium	mg/L	130
Iron	mg/L	0.8
Magnesium	mg/L	63
Potassium	mg/L	<1.0
Sodium	mg/L	99

TABLE 8B
AQUIFER TEST ANALYTICAL GROUNDWATER RESULTS
GROUNDWATER SAMPLE ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS
FORMER EZ-SERVE LOCATION NO. 100877
525 WEST A STREET, HAYWARD, CALIFORNIA

Sample Identification	Sampling Date	Sampling Time	TPHg EPA 8260B (µg/L)	Benzene EPA 8260B (µg/L)	Toluene EPA 8260B (µg/L)	Ethylbenzene EPA 8260B (µg/L)	Total Xylenes EPA 8260B (µg/L)	TAME EPA 8260B (µg/L)	TBA EPA 8260B (µg/L)	DIPE EPA 8260B (µg/L)	ETBE EPA 8260B (µg/L)	MTBE EPA 8260B (µg/L)
Ex-1/1	7/9/2002	7:30	3,100	83	21	6.5	220	<0.5	<5.0	0.6	<0.5	3.3
Ex-1/2	7/9/2002	13:30	2,900	52	1.6	120	170	<0.5	<5.0	<0.5	<0.5	1.1
Ex-1/3	7/9/2002	22:00	1,300	31	0.8	100	100	<0.5	<5.0	<0.5	<0.5	1.1
Ex-1/4	7/10/2002	7:45	3,800	73	1.3	160	240	<0.5	<5.0	<0.5	<0.5	2.6

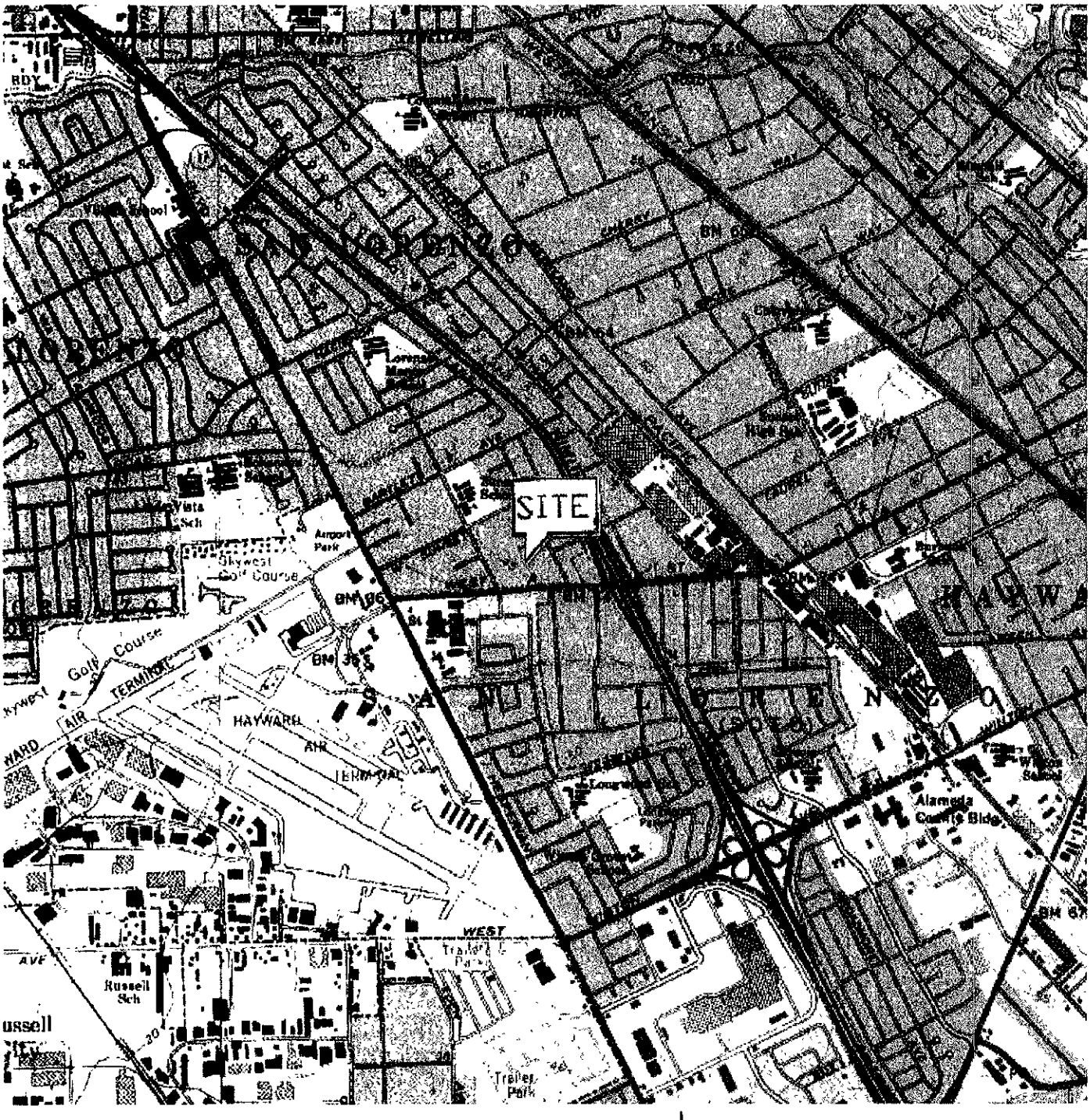
Notes:

TPHg	Total petroleum hydrocarbons characterized as *gasoline; analyzed by EPA method 8260B*
TAME	t-Amyl Methyl Ether
TBA	t-Butyl Alcohol
DIPE	Dusopropyl Ether
ETBE	*Ethyl-t-Butyl Ether*
MTBE	Methyl-tertiary-butyl ether; analyzed by EPA 8260B
<#	Less than the detection limit shown
µg/kg	micrograms per kilograms (parts per billion)

TABLE 9
REMEDIATION SCHEDULE
FORMER E-Z SERVE LOCATION NO. 100877
525 WEST A STREET, HAYWARD, CALIFORNIA

DATE	ACTIVITY
August-02	DEH receives CAP
October-02	CAP approved
January-03	ATC completes site access negotiations, well permitting, and utility survey
January-03	Begin Remedial Excavation
February-03	Install Groundwater Monitoring Wells
March-03	Data Interpretation and Report for County of Alameda

FIGURES



REFERENCE: MAPTECH TERRAIN NAVIGATOR 2001, CALIFORNIA.

N

0 2000" 4000"

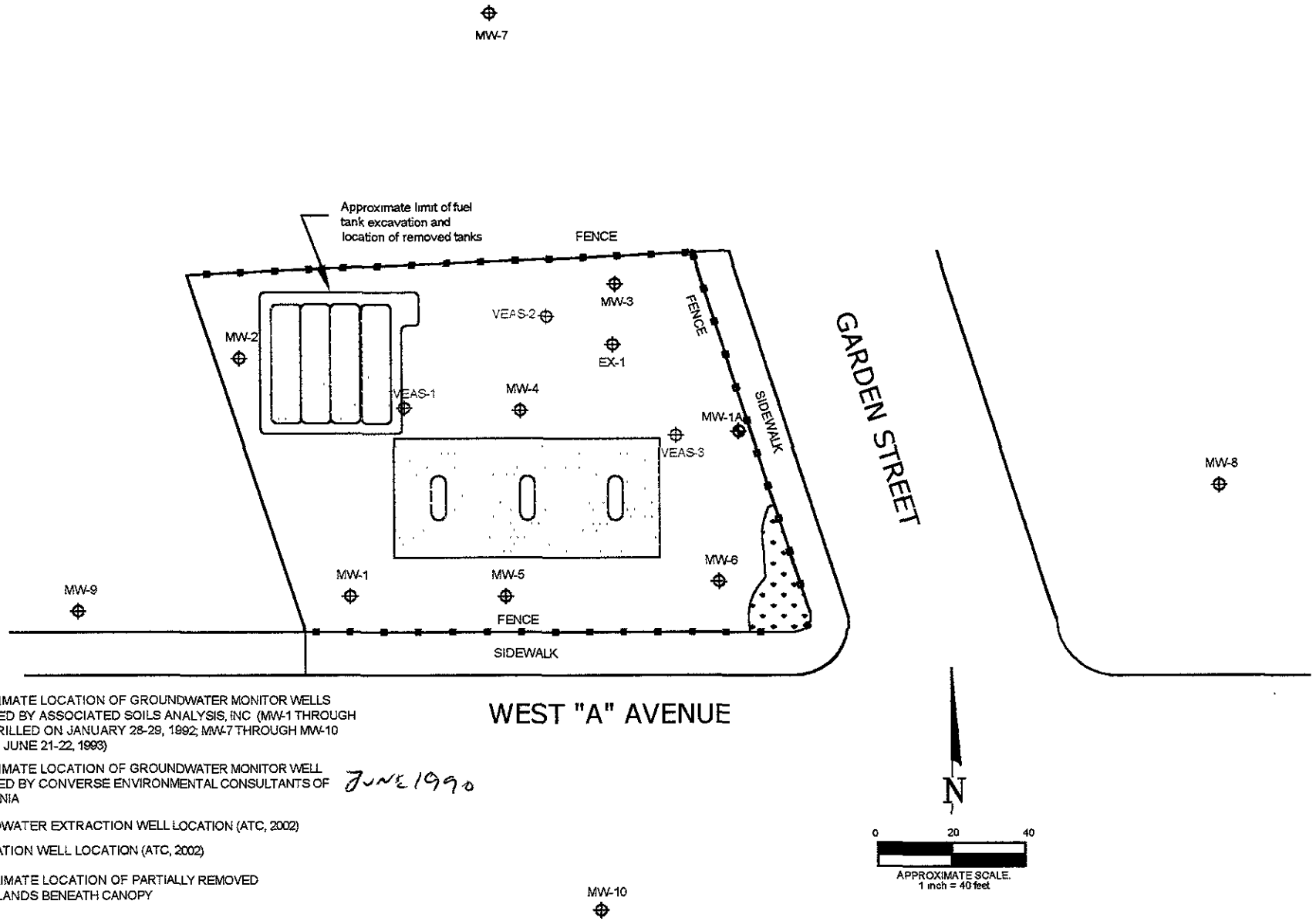
1 INCH = 2000 FEET

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	

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



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

JUNE 1990

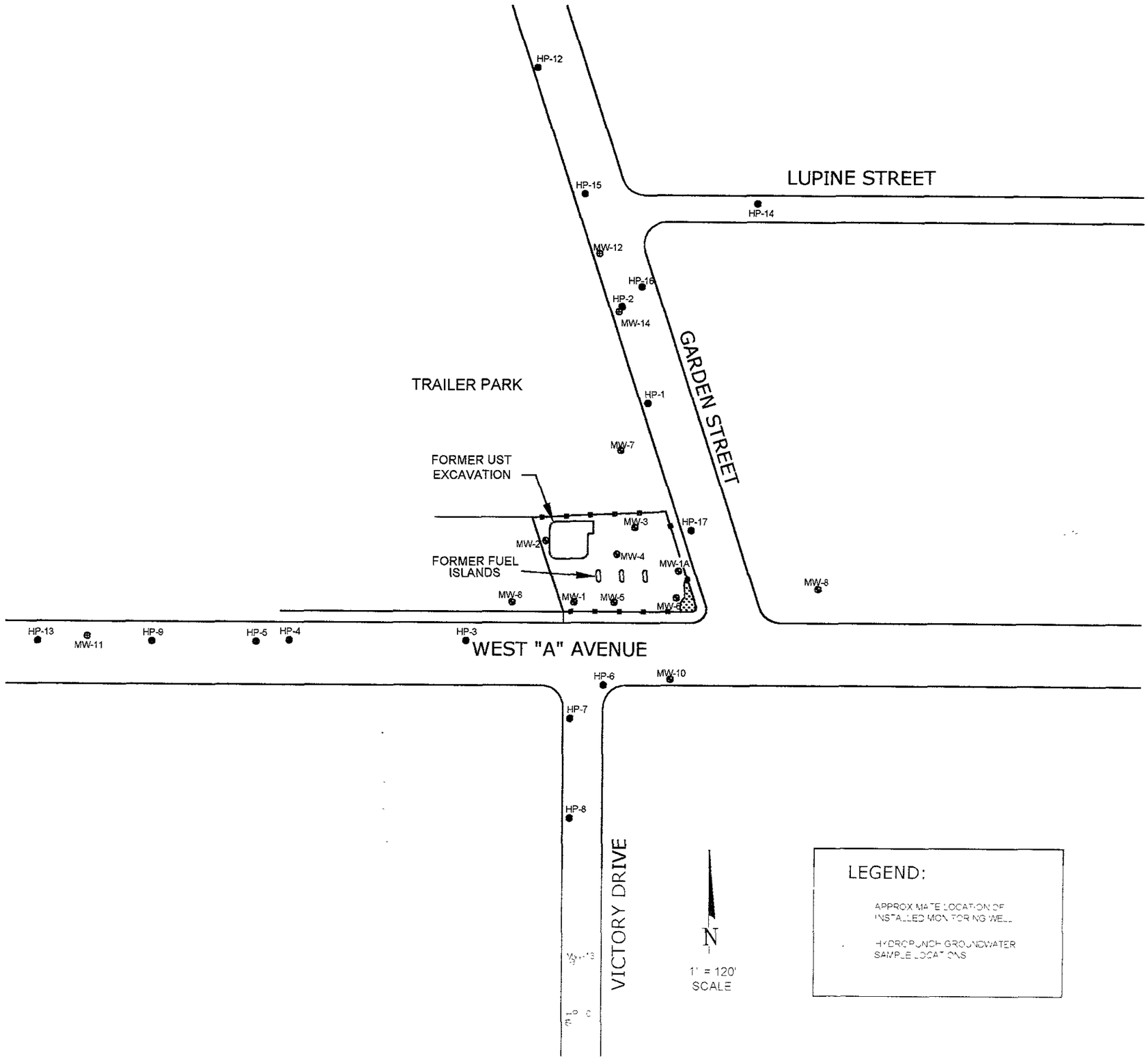
PREVIOUS SITE INVESTIGATION MAP
GROUNDWATER MONITOR WELLS
(ASA, JANUARY 1992/ JUNE 1993; ATC, JUNE 2002)

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

PROJECT NO. 43.25827.0024 | FIGURE 2

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

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

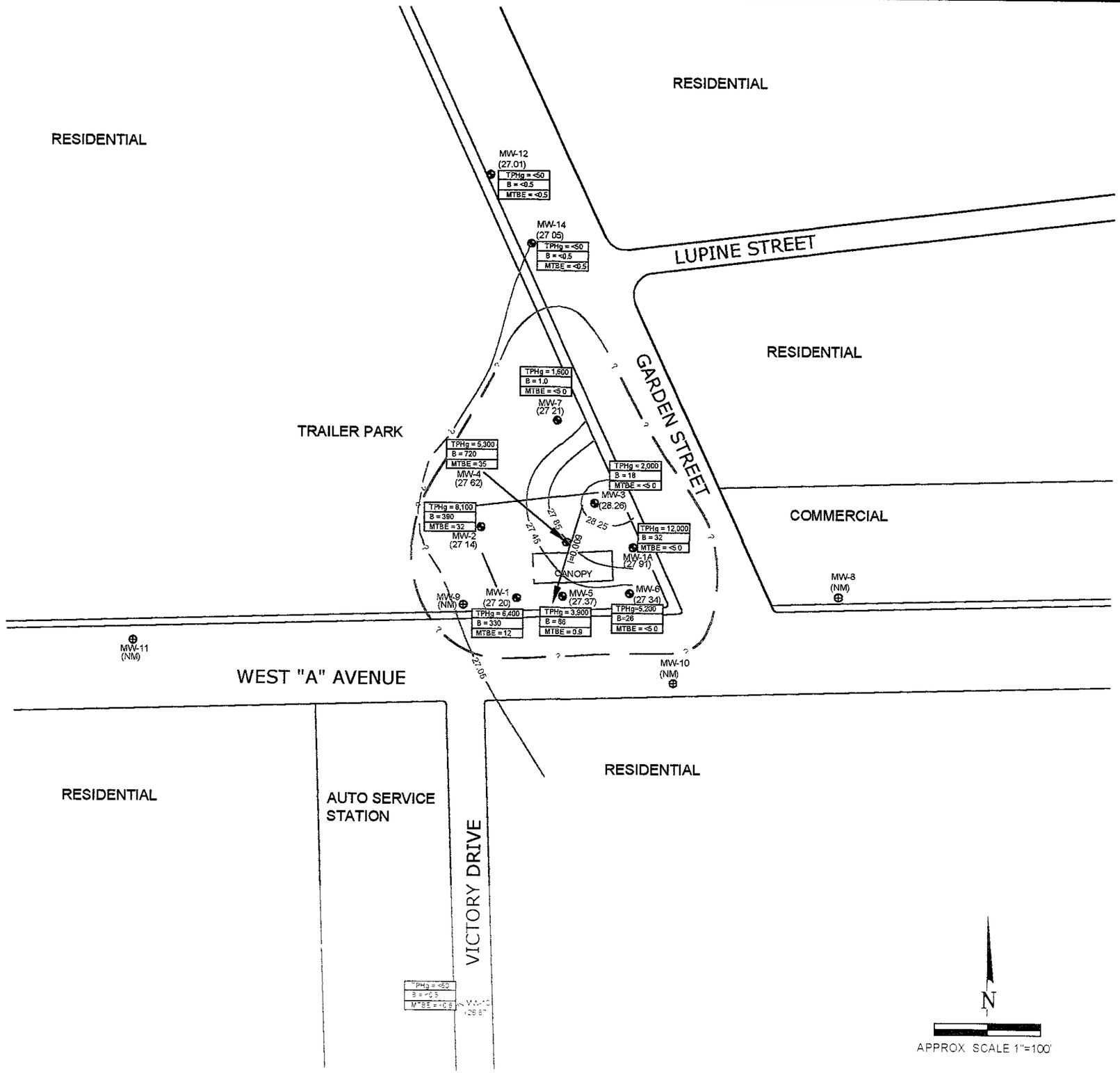


PREVIOUS SITE INVESTIGATION MAP
HYDRO-PUNCH LOCATIONS/GROUNDWATER MONITOR WELLS (BC, FEBRUARY 1995)

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	

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<50 / 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).
- i=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 APPRAXIMATE.
- ESTIMATED AERIAL EXTENT OF TPHg IMPACTED GROUNDWATER SOLID WHERE INFERRED, QUERIED WHERE UNKNOWN

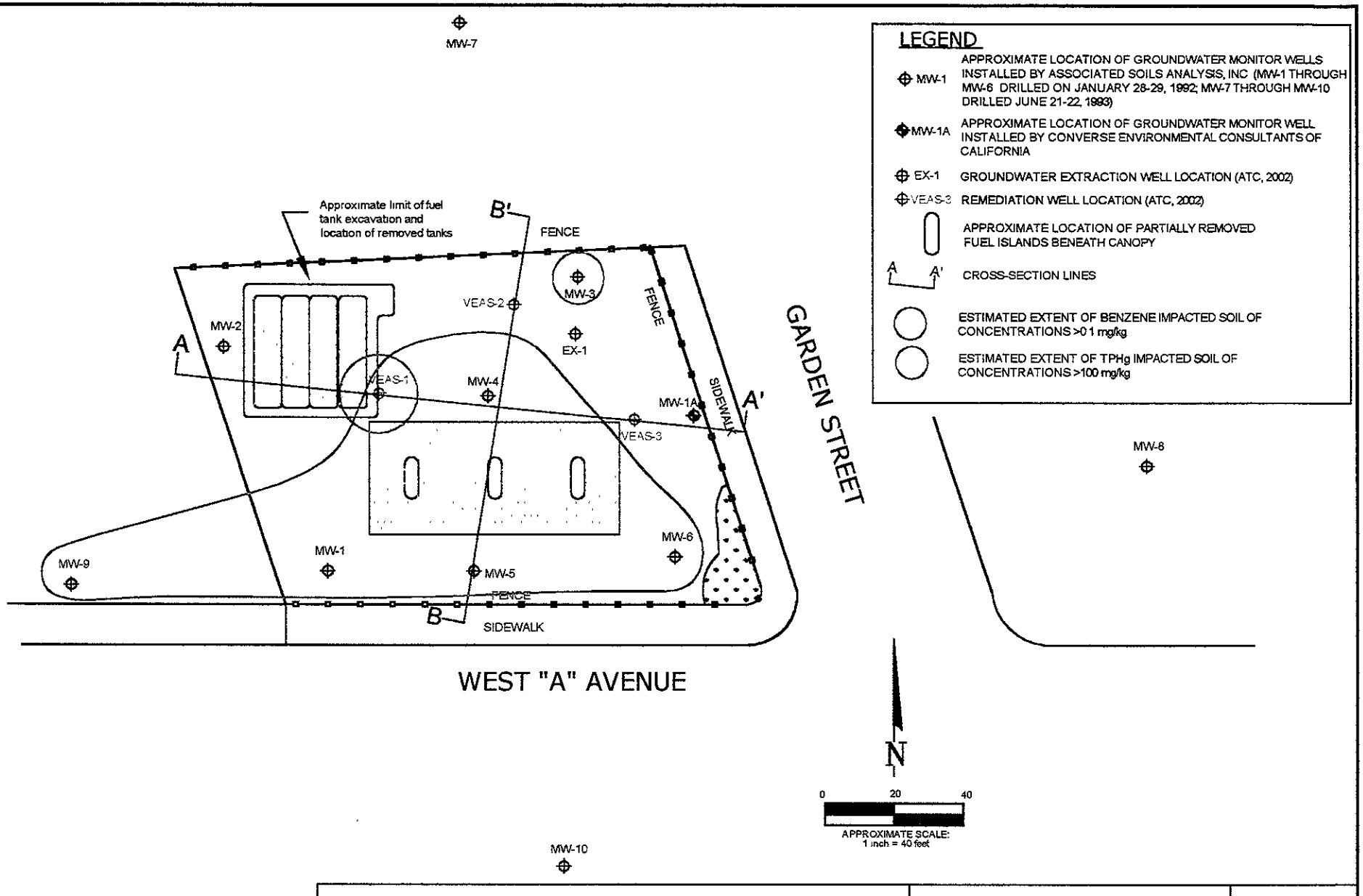
NOTE CONTOUR LINES GENERATED BY SURFER 7,® GOLDEN SOFTWARE INC , AUGUST 1999

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 4
FILE NO.	h:projects/ezserve/100877/fig4 (6-18-02)	

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

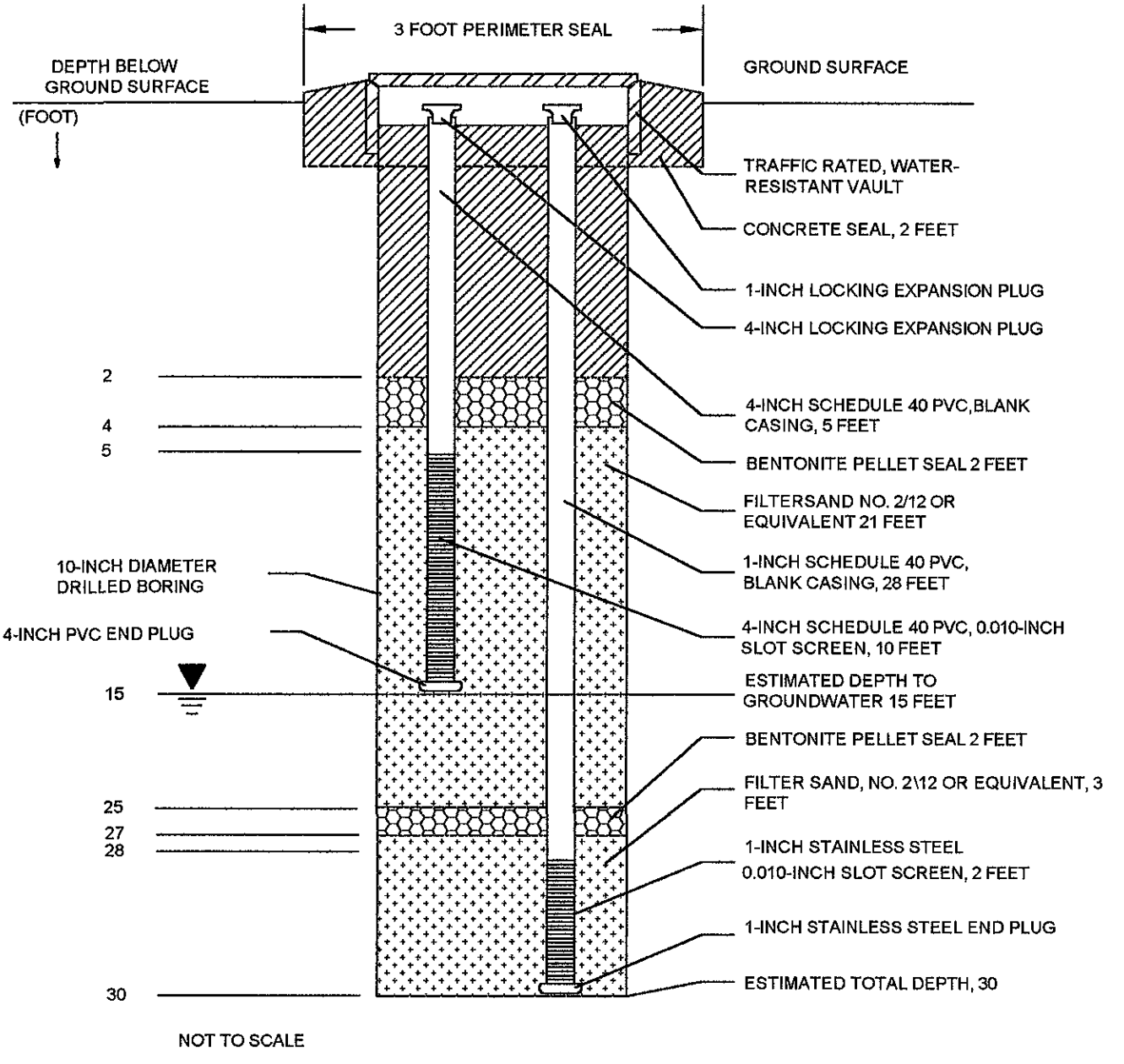


SITE PLAN WITH GEOLOGIC CROSS-SECTION LINES

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

PROJECT NO. 43.25827.0024	FIGURE 5
FILE NO. h:projects/ezserve/100877/fig5	

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

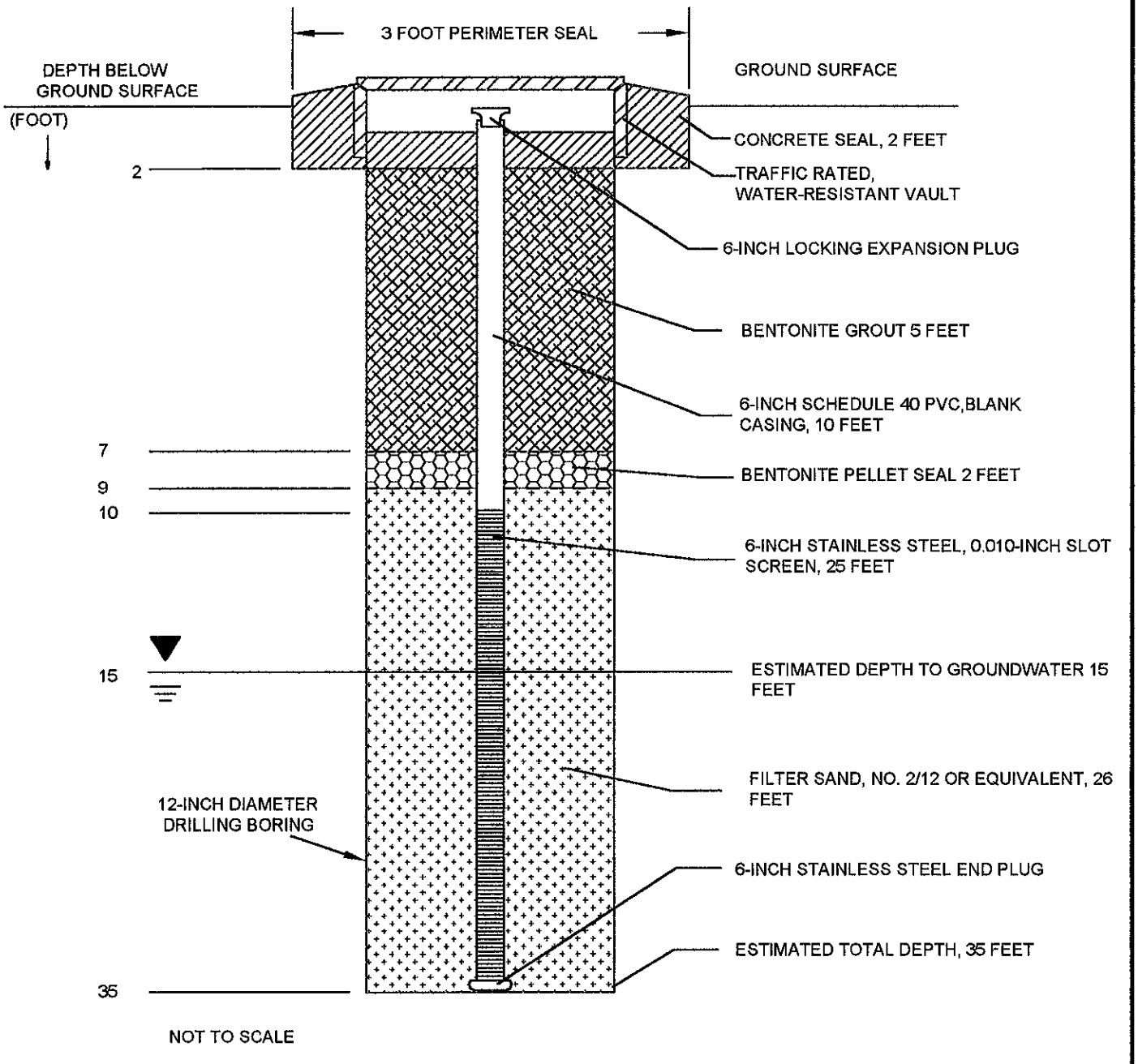


REMEDIATION WELL (VEAS-1 THROUGH VEAS-3) CONSTRUCTION DETAIL

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

PROJECT NO.	43.25827.0024	FIGURE 6
FILE NO.	h:projects/ezserve/100877/fig6	

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

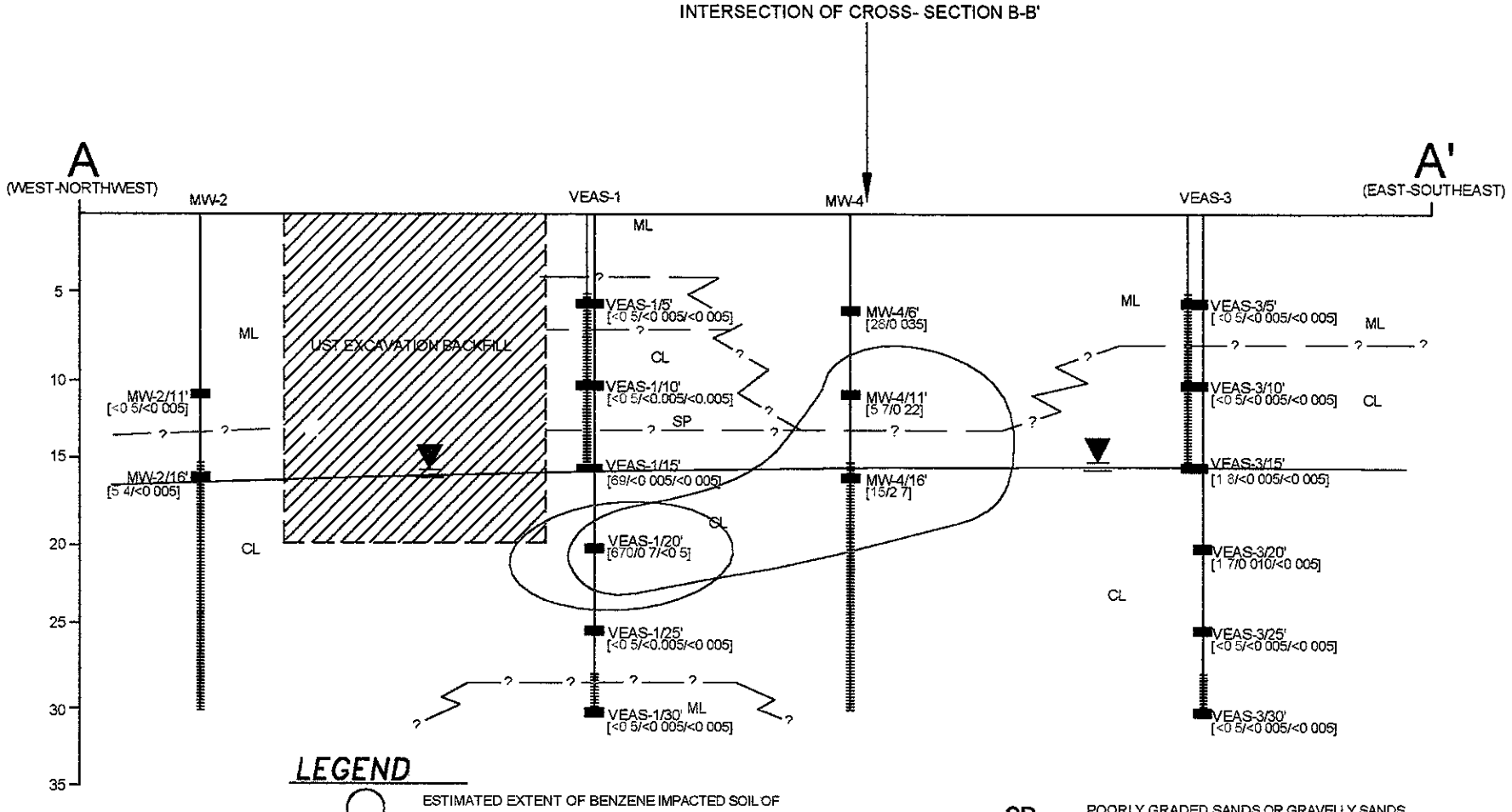


REMEDIATION WELL (EX-1) CONSTRUCTION DETAIL

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

PROJECT NO.	43.25827.0024	FIGURE 7
FILE NO.	h:projects/ezserve/100877/fig7B	

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



LEGEND

- ESTIMATED EXTENT OF BENZENE IMPACTED SOIL OF CONCENTRATIONS >0 1 mg/kg
- ESTIMATED EXTENT OF TPHg IMPACTED SOIL OF CONCENTRATIONS >100 mg/kg
- 11' — DEPTH OF SOIL SAMPLE LOCATION IN FEET BELOW GROUND SURFACE
- [<0 5/<0.005/<0.005] — 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

-20' 0 20'
HORIZONTAL SCALE 1" = 20'

-10' 0 10'
VERTICAL SCALE 1" = 10'

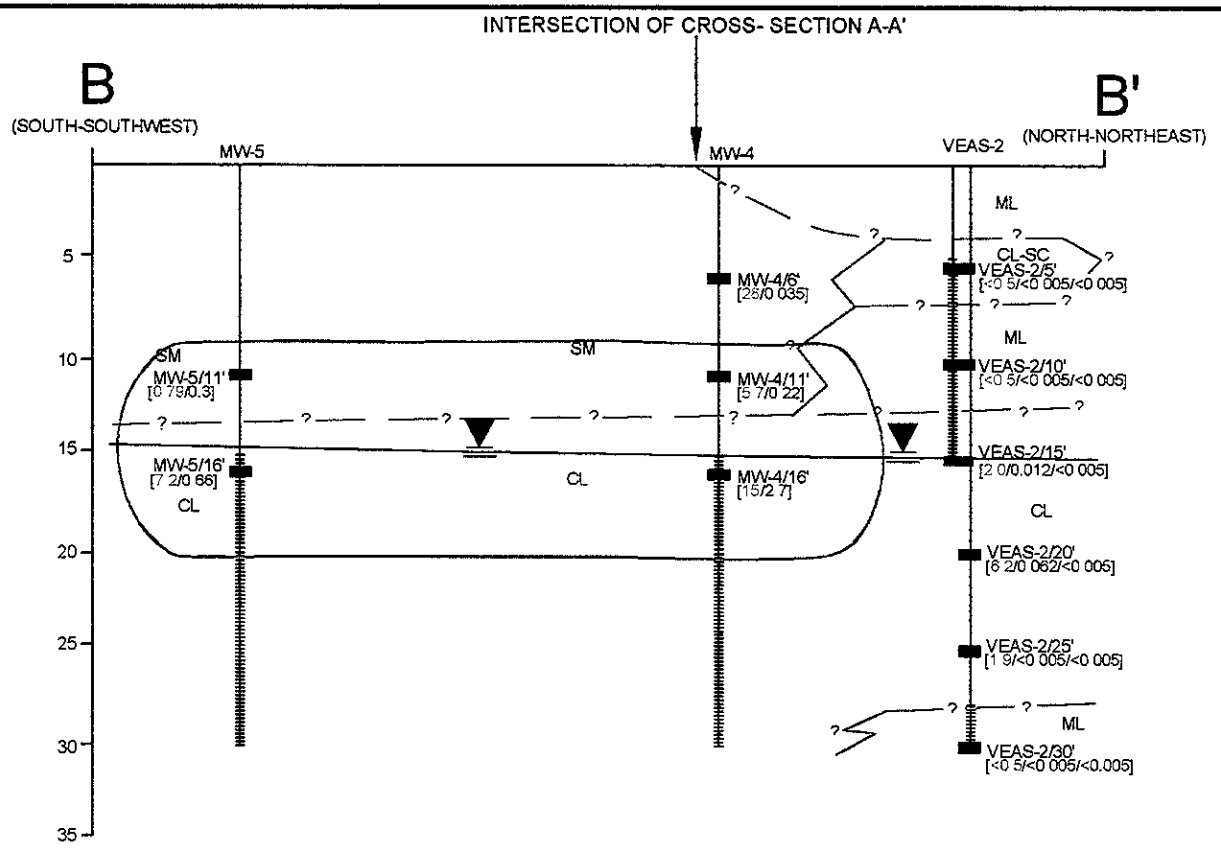
GEOLOGIC CROSS- SECTION A - A'

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/Fig8(6-18-02)

FIGURE 8

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



LEGEND

○	ESTIMATED EXTENT OF BENZENE IMPACTED SOIL OF CONCENTRATIONS >0.1 mg/kg
11'	DEPTH OF SOIL SAMPLE LOCATION IN FEET BELOW GROUND SURFACE
[<0 5/<0 005/<0 005]	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

-20' 0 20'
HORIZONTAL SCALE 1" = 20'

-10' 0 10'
VERTICAL SCALE 1" = 10'

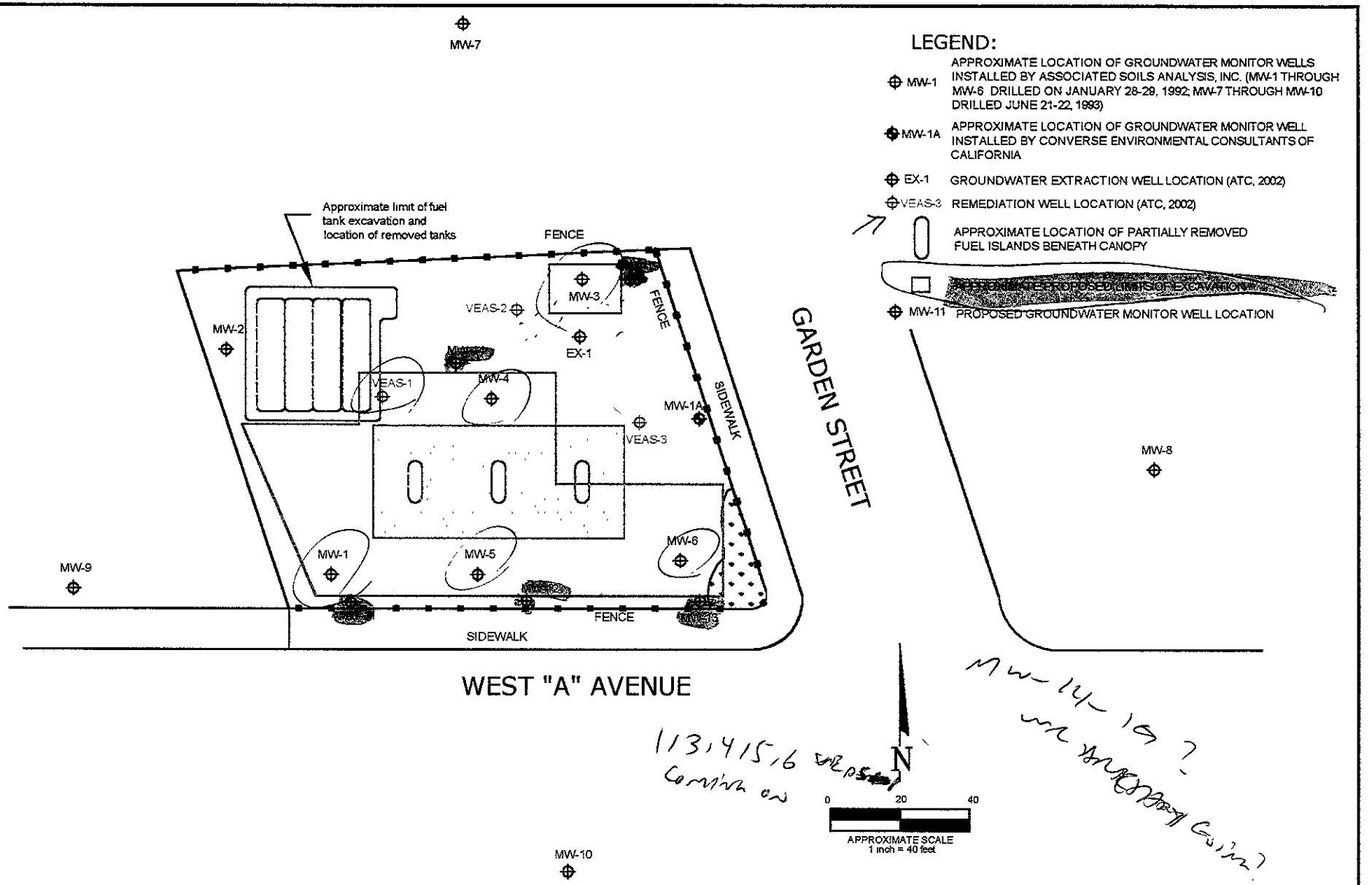
GEOLOGIC CROSS- SECTION B - B'

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

PROJECT NO. 43.25827.0024
FILE NO. h:projects/ezserve/100877/Fig9

FIGURE 9

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

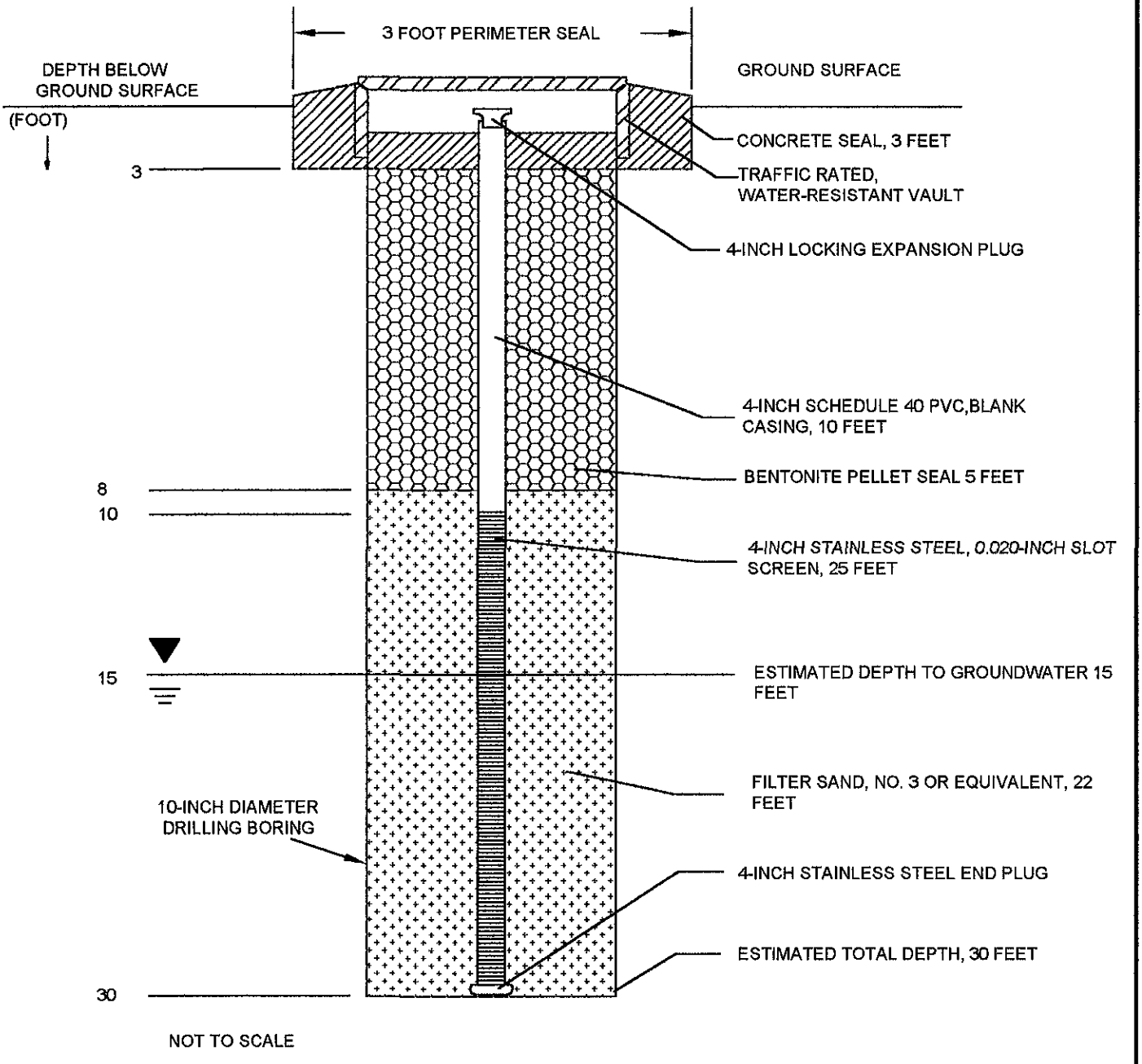


SITE PLAN WITH PROPOSED REMEDIAL EXCAVATION LIMITS

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

PROJECT NO. 43.25827.0024	FIGURE 10
FILE NO. h:projects/ezserve/100877/fig10	

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



MONITORING WELL (MW-15 THROUGH MW-19) CONSTRUCTION DETAIL

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

PROJECT NO.	43.25827.0024	FIGURE 11
FILE NO.	h:projects/ezserve/100877/fig11	

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

APPENDICES

APPENDIX A

REGULATORY CORRESPONDENCE

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 / 0956 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

REMEDIATION WELL INSTALLATION
METHOD OF SOIL CLASSIFICATION
BORING LOGS
NON-HAZARDOUS WASTE DISPOSAL MANIFEST

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.	

COARSE-GRAINED SOILS
LESS THAN 50% FINES*

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
GW	WELL-GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LESS THAN 5% FINES	GRAVELS More than half of coarse fraction is larger than No. 4 sieve size
GP	POORLY-GRADED GRAVELS OR GRAVEL-SAND MIXTURES LESS THAN 5% FINES	
GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, MORE THAN 15% FINES	
GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, MORE THAN 15% FINES	
SW	WELL-GRADED SANDS OR GRAVELLY SANDS, LESS THAN 5% FINES	SANDS More than half of coarse fraction is smaller than No. 4 sieve size
SP	POORLY-GRADED SANDS OR GRAVELLY SANDS, LESS THAN 5% FINES	
SM	SILTY SANDS, SAND-SILT MIXTURES, MORE THAN 15% FINES.	
SC	CLAYEY SANDS, SAND-CLAY MIXTURES, MORE THAN 15% FINES	

NOTE: Coarse-grained soils receive dual symbols if they contain 5 to 15% fines (e.g. SW-SM, GP-GC, etc.) (ASTM Standard D 2488-90)

FINE-GRAINED SOILS
MORE THAN 50% FINES

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS	SILTS AND CLAYS Liquid limits less than 50
CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY; CAN BE GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
OL	ORGANIC SILTS OR ORGANIC SILT-CLAY MIXTURES OF LOW PLASTICITY	
MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTS, ELASTIC SILTS	SILTS AND CLAYS Liquid limit more than 50
CH	INORGANIC CLAYS OF HIGH PLASTICITY; CAN BE GRAVELLY CLAYS, SANDY CLAYS, FAT CLAYS	
OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY	
PT	PEAT, MUCK, AND OTHER HIGHLY ORGANIC SOILS	HIGHLY ORGANIC SOILS

NOTE: Fine-grained soils may receive dual classification based upon plasticity characteristics

SOIL SIZES

COMPONENT	SIZE RANGE
BOULDERS	12 in.
COBBLES	3 in. to 12 in.
GRAVEL	No. 4 to 3 in.
Coarse	3/4 in. to 3 in.
Fine	No. 4 to 3/4 in.
SAND	No. 200 to No. 4
Coarse	No. 10 to No. 4
Medium	No. 40 to No. 10
Fine	No. 200 to No.40
*Fines (Silt or Clay)	No. 200

NOTE: Only sizes smaller than 3 inches are used to classify soils

CONSISTENCY

CLAYS & SILTS	BLOWS/FOOT*
VERY SOFT	0-2
SOFT	2-4
FIRM	4-8
STIFF	8-15
VERY STIFF	16-32
HARD	Over 32

RELATIVE DENSITY

SANDS & GRAVELS	BLOWS/FOOT*
VERY LOOSE	0-4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	Over 50

*Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1 3/8-inch ID) split-spoon sampler (ASTM Standard D 1586-84)

PLASTICITY OF FINE-GRAINED SOILS

TERMS	DEFINITIONS
Non-Plastic	1/8-inch (3-mm) thread can not be rolled
Low	Thread can be rolled once with difficulty
Medium	Thread can be rolled once or twice
High	Thread easy to roll and reknead repeatedly

DILATANCY

DILATANCY	CRITERIA
None	No visible change
Slow	Water appears slowly on surface during shaking; disappears slowly upon squeezing
Rapid	Water appears quickly during shaking; disappears quickly upon squeezing

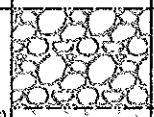
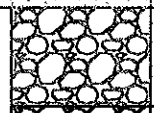
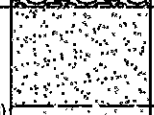
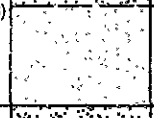
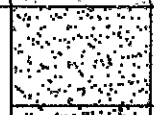
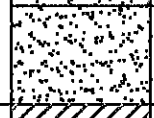
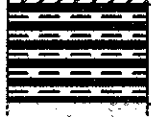
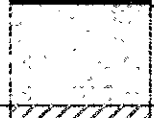
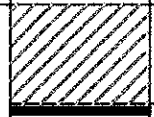
MOISTURE CONDITION

DRY	No moisture present, dry to touch
SLIGHTLY DAMP	No discernable moisture
DAMP	Sufficient moisture present to darken the appearance but not adhere to the hand
MOIST	Adheres to and moistens the hand
VERY MOIST	Wets the hand but can not be squeezed out
WET	Visible free water is present

Method of Soil Classification | Plate: C-2

ATC Associates Inc.

DEFINITION OF TERMS

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

VATC ASSOCIATES INC.

BOREHOLE/WELL LOG LEGEND

PROJECT: E-Z SERVE LOCATION NO. 100877
LOCATOIN VEAS-1
BORING DATE: 06-20-02

SOIL BORING / WELL LOG

DATUM: GROUND SURFACE DIP VERTICAL LOGGED SCOTT LEVIN

DEPTH SCALE FEET	10" HOLLOW STEM AUGERS	SOIL PROFILE DESCRIPTION	STRATA PLOT	DEPTH B.G.S. (ft)	SAMPLES ID	SOIL TYPE	BLOWS / FOOT	ODOR / STAIN	CONCENTRATION OVA (PPM) TPHg ANALYTICAL RESULTS (mg/kg)
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	N/N	1.5 / 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	N/N	23 5 / N/A
12									
14		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	Y/Y	319 / N/A
16									
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	Y/N	1,000 / N/A
22									
24		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	Y/Y	68 / N/A
26									
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	Y/N	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 (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									
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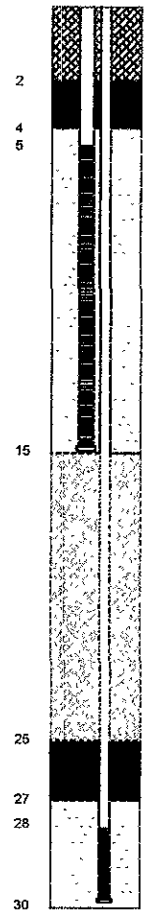
48									
50									

VATC ASSOCIATES INC.



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

SOIL BORING / WELL LOG

DATUM GROUND SURFACE | DIP. VERTICAL | LOGGED SCOTT LEVIN

DEPTH SCALE FEET	10" HOLLOW STEM AUGERS	SOIL PROFILE DESCRIPTION	STRATA PLOT	DEPTH B G S (ft)	SAMPLIES ID	SOIL TYPE	BLOWS / FOOT	ODOR / STAIN	CONCENTRATION OVA (PPM) TPHg ANALYTICAL RESULTS (mg/kg)
0		UNPAVED SURFACE							
2		SANDY SILT ORGANIC (ML), 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							
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	N/N	1 1 / N/A
8									
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	N/N	1.3 / N/A
12									
14		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	Y/Y	225 / N/A
16									
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	Y/N	223 / N/A
22									
24									
26		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	Y/Y	17 5 / 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	Y/N	3 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 (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									
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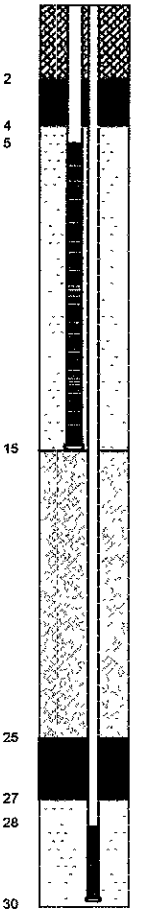
42									
44									
46									
48									
50									

VATC ASSOCIATES INC.



PROJECT E-Z SERVE LOCATION NO. 100877
LOCATOIN VEAS-3
BORING DATE: 06-20-02

SOIL BORING / WELL LOG

DATUM: GROUND SURFACE | DIP: VERTICAL | LOGGED: SCOTT LEVIN

DEPTH SCALE FEET	10" HOLLOW-STEM AUGERS	SOIL PROFILE DESCRIPTION	STRATA PLOT	DEPTH B G S. (ft)	SAMPLIES ID	SOIL TYPE	BLOWS / FOOT	ODOR / STAIN	CONCENTRATION 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									
6		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	N/N	1 1 / N/A
8									
10		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	N/N	1.3 / N/A
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	Y/Y	5 9 / 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	Y/Y	51.5 / N/A
22									
24									
26		BECOMES GRAY (5yr 5/1), LESS CLAY, SILT INCREASES, FIRM, WET, STRONG HC ODRO AND HC STAIN			VEAS-3/25'	CL	7	Y/Y	3 2 / N/A
28		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							
30					VEAS-3/30'	CL	22	N/N	3 2 / 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									
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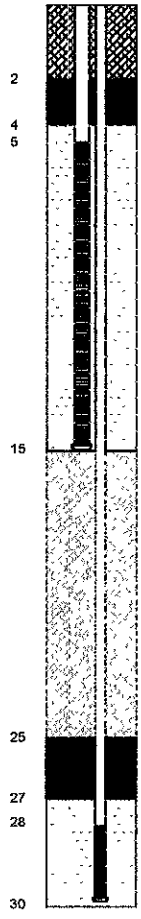
VATC ASSOCIATES INC.



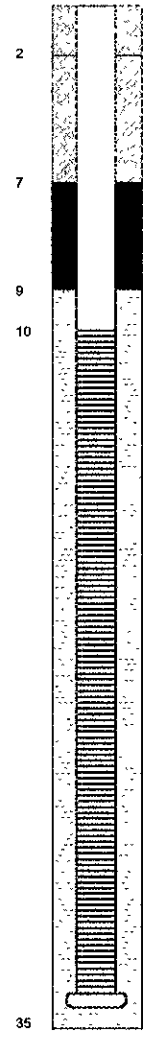
PROJECT: E-Z SERVE LOCATION NO 100877
LOCATOIN: EX-1
BORING DATE. 06-24-02

SOIL BORING / WELL LOG

DRILLING COMP. · BAY AREA EXPLORATION
DRILLER SCOTT FITCHIE
DATUM· GROUND SURFACE
DIP VERTICAL
LOGGED SCOTT LEVIN

DEPTH SCALE FEET	12" HOLLOW-STEM AUGERS	SOIL PROFILE DESCRIPTION	STRATA PLOT	DEPTH B G S (ft)	SAMPLIES ID	SOIL TYPE	BLOWS / FOOT	ODOR / STAIN	CONCENTRATION OVA (PPM) TPHg ANALYTICAL RESULTS (mg/kg)
0		UNPAVED SURFACE							
2									
4		SANDY SILT WITH GRAVEL (ML), DARY GRAYISH BROWN (2 5y 4/2), INELASTIC SILT, FINE GRAINED SAND, FINE SUBROUNDED GRAVEL, FIRM, DRY, NO HYDROCARBON (HC) ODOR			EX-1/5'	ML			N/A / N/A
6									
8									
10		LEAN CLAY WITH SILT (CL), STRONG BROWN (7.5yr 5/6), VERY FINE GRAINED, LOW PLASTIC CLAY, SILT, STIFF, MOIST, NO HC ODOR, HC STAIN			EX-1/10'	CL	8	N/Y	1 0 ppm / <0 5
12									
14		BECOMES LESS SILT, VERY STIFF, MOIST, NO HC ODOR, HC STAIN			EX-1/15'	CL	20	N/Y	11 7 ppm / <0 5
16									
18									
20		SILTY CLAY WITH SAND (CL), BROWN (7.5yr 5/4), CLAY WITH LOW PLASTICITY, SEMI-ELASTIC SILT, VERY FINE GRAINED SAND, VERY STIFF, WET, NO HC ODOR		▼	EX-1/20'	CL	23	N/N	846 ppm / 100
22									
24		BECOMES DARK YELLOWISH BROWN (10yr 4/4), LESS CLAY, MORE SILT, FIRM, WET, NO HC ODOR.			EX-1/25'	CL	7	N/N	2 5 ppm / 1 1
26									
28									
30		CLAYEY SILT (ML), BROWN (7 5yr 5/4), ELASTIC SILT, CLAY WITH LOW PLASTICITY, TRACE FINE GRAINED SAND, STIFF, WET, NO HC ODOR			EX-1/30'	ML	12	N/N	3.7 ppm / <0.5
32									
34					EX-1/35'	ML	18	N/N	5.8 ppm / <0.5
36		TOTAL DRILLING 35 5' BGS							
38		BOREHOLE COMPLETED AS 6-INCH DIAMETER GROUNDWATER EXTRACTION WELL, SCREENED FROM 10 TO 35 FEET BGS							
40									
42									
44									
46									
48									
50									

VATC ASSOCIATES INC.



1311

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: Restructure Petroleum Marketing Services — Former: E-Z Serve 100877

ADDRESS: 11511 U.S. Highway 301 North — 525 W. "A" Street

CITY, STATE, ZIP: Thonotosassa, FL 33592 — Hayward, CA

PHONE NO. ( )

CONTAINERS: NO. 1 VOLUME/CY 1985 gals WEIGHT/TONS

TYPE: ☒ TANK TRUCK ☐ DUMP TRUCK ☐ DRUMS ☐ OTHER

WASTE DESCRIPTION: WATER — GENERATING PROCESS: GROUNDWATER

COMPONENTS OF WASTE	PPM%	COMPONENTS OF WASTE	PPM%
1. WATER	99-100%	3. W.O. #217	
2. TPH	< 1%	4.	

SITE ADDRESS

PROPERTIES: pH 7-10 ☐ SOLID ☒ LIQUID ☐ OTHER

HANDLING INSTRUCTIONS: Wear appropriate protective clothing.

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS

Scott Hatcher/Excell for Generator — TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

TRANSPORTER

NAME: Petrol Production Supply Inc

ADDRESS: Box 10207

CITY, STATE, ZIP: Bakersfield, CA 93389 — PICK-UP DATE: 7/24/02

PHONE NO. 661, 589 8707

TRUCK UNIT I.D. NO 212

Roy Lee — TYPED OR PRINTED FULL NAME & SIGNATURE — 7/25/02 DATE

RECEIVING FACILITIES

NAME: Remedy Environmental Services

ADDRESS: 2000 E. Brundage Lane — PROFILE NO.

CITY, STATE, ZIP: Bakersfield, CA 93308

PHONE NO. (661) 637-1852

Nick Melendrade — TYPED OR PRINTED FULL NAME & SIGNATURE — 7/26/02 DATE

APPENDIX C

STANDARD OPERATING PROCEDURES
SOIL BOREHOLE DRILLING, REMEDIATION WELL INSTALLATION, AND SOIL SAMPLING
FIELD SOIL VAPOR MONITORING
SOIL VAPOR EXTRACTION AND AIR SPARGING FEASIBILITY TEST
GROUNDWATER MONITOR WELL PURGING AND SAMPLING
CONSTANT DISCHARGE AQUIFER TEST

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, stale 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 disposable, 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 dissaggregated. 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.

STANDARD OPERATING PROCEDURE
AIR SPARGE, SOIL VAPOR EXTRACTION, AND COMBINED AIR SPARGE/SOIL VAPOR EXTRACTION PILOT TEST

Vapor Extraction Pilot Test

Before performing the vapor extraction pilot test (VEPT), any necessary air permits shall be obtained and the test will be performed in accordance with any requirements stated in the permit. Ambient pressure readings will be measured at the observation wells prior to the start of the test. The pilot test will be conducted by applying a vacuum to a well with a blower to extract soil-gas. The test will be conducted at three steps of increasing applied vacuum. The final step of the test will be conducted at the maximum applied vacuum of the blower. A step will be considered complete when vacuum influence measured in observation wells stabilized for two consecutive readings.

The following measurements will be made during each step of the test:

- The vacuum applied to the well will be measured with a vacuum gauge. The applied vacuum will be controlled and adjusted with dilution valve.
- The concentration of hydrocarbon volatiles and oxygen in the soil-gas extracted from the well will be monitored during each step of the test using a flame ionization detector (FID) or a photo ionization detector (PID), and Gastech® meter.
- The vacuum influence in observation wells will be measured in inches of water (vacuum) with Magnehelic® gauges.
- The soil-gas extraction flow rate at the extraction well will be measured during each step of the test, once the vacuum has stabilized, using a thermal anemometer, or pitot tube and Magnehelic® gauges.

A soil-gas sample will be collected at the maximum applied vacuum in a Tedlar™ bag for laboratory analysis. The samples will be analyzed for volatile fuel hydrocarbons (VFH) using Modified EPA Method 8015B and for BTEX using EPA Method 8021B at a California DHS-certified lab. The extracted soil-gas will be treated with an internal combustion engine, or thermal oxidizer. The appropriate air quality control permit will be procured for the internal combustion engine, or thermal oxidizer.

Air Sparge Pilot Test

The air sparge test will be performed by injecting atmospheric air into the saturated zone through an air sparge well and monitoring the influence at observations wells. Ambient groundwater level and DO readings will be measured at the observation wells prior to the start of the test. The test will be performed at three different flow rates, 2, 5, and 10 acfm. The test will be conducted at three steps of increasing flow rate. A step will be considered complete when the groundwater level and DO measured in observation wells stabilized for two consecutive readings, or at the discretion of personnel conducting the test. The vapor extraction system will be operated during the air sparge pilot test. The vapor extraction system will be operated at a constant flow rate to capture hydrocarbon vapors produce by air sparge. Personnel conducting the test will determine the extraction flow rate.

The air sparge test will be conducted using a compressor, associated flow rate and pressure gauges, DO and water level meters. All above ground air pressurized piping will be metal or hose suitable to the application. Prior to beginning the test the following measurements will be made at the surrounding observation wells:

- The groundwater level will be measured to the nearest 0.01 foot with a Solinst® electronic interface probe, or equivalent in the observation wells.
- The down hole groundwater DO concentration in the observation wells.

The test will be conducted at 2, 5, and 10 acfm. During each step, the following parameters will be measured:

- The groundwater level will be measured to the nearest 0.01 foot with a Solinst® electronic interface probe, or equivalent in the observation wells.
- The down hole groundwater DO concentration in the observation wells.
- Applied well head pressure using an appropriate pressure gauge, and flow rate using a thermal anemometer, or pitot tube and Magnehelic® gauges.

The following vapor extraction measurements will be made during each step of the air sparge test:

- The vacuum applied to the well will be measured with a vacuum gauge. The applied vacuum will be controlled and adjusted with dilution valve.
- The concentration of hydrocarbon volatiles and oxygen in the soil-gas extracted from the well will be monitored during the test using a flame ionization detector (FID) or a photo ionization detector (PID), and Gastech® meter.
- The soil-gas extraction flow rate at the extraction well will be controlled during the test using a thermal anemometer, or pitot tube and Magnehelic® gauges.

A soil-gas sample will be collected during the maximum injection flow rate during the air sparge pilot test in a Tedlar™ bag for laboratory analysis. The sample will be analyzed for volatile fuel hydrocarbons (VFH) using Modified EPA Method 8015B and for BTEX using EPA Method 8021B at a California DHS-certified lab. The extracted soil-gas will be treated with an internal combustion engine, or thermal oxidizer. The appropriate air quality control permit will be procured for the internal combustion engine, or thermal oxidizer.

STANDARD OPERATING PROCEDURE
CONSTANT DISCHARGE AQUIFER TEST

Purpose and Scope

Aquifer testing is generally required in order to accurately calculate aquifer hydraulic parameters such as hydraulic conductivity (K), transmissivity (T), and coefficient of storage (S). The data can be used to evaluate groundwater remediation technologies. In addition, the aquifer parameters are necessary to evaluate contaminant transport. The aquifer test will consist of a step test, pumping test, and recovery test.

Equipment Set-Up and Site Control

Prior to arriving on site, the necessary permits to discharge the groundwater extracted from the pumping well into the sewer, or a water holding tank to be delivered to the site for temporary storage.

The aquifer test will be conducted using a submersible Grundfos® environmental pump which will have a check valve. A discharge hose will be connected to the pump and extend to the sewer (if permitted), or a holding tank. A flow meter/totalizer will be installed to measure the flow rate and total gallons extracted during the test. A globe valve will be utilized to control the extraction flow rate. The pump will be set approximately one to two feet from the bottom of the well. A generator, or existing electrical power at the site, will be used to power the pump. Pressure transducers will be installed in the pumping well and in three observation wells. The transducers will be connected to a data logger. Traffic cones and caution tape will be used to surround the pumping well and associated test equipment. The discharge hose and all power cords will be secured to the ground using duct tape.

Field Procedures

Prior to the start of work, a decontamination area will be established. This will be in a secured area and consist of an Alconox® solution wash, a first rinse and a second rinse. Down hole equipment will be decontaminated prior to use. Prior to equipment set-up, all wells to be monitored during the test will be opened and allowed to stabilize. The data logger will be set-up for the conditions of the test.

At least 24 hours prior to the test, a step test will be performed to determine the appropriate flow rate to be used during the aquifer test. The step test will be conducted in the well to be used for the aquifer test. Each step will consist of pumping groundwater from the well at a constant rate until the water level stabilizes from water table disruption caused by equipment installations. The flow rate will be increased in each subsequent step until the maximum flow rate that can be sustained by the well is determined.

Prior to starting the pump, the total gallons displayed on the flow meter/totalizer will be recorded. This will be used to determine the total number of gallons extracted during the test. The pump and data logger will be turned on simultaneously to start the pumping test. During the pumping test a constant flow rate will be extracted from the pumping well. The flow rate and data collected by the data logger will be periodically monitored during the test. The duration of the pumping test will be determined by the data collected. The test may be conducted for 8 to 16 hours. Personnel conducting the test will determine the duration of the pumping test.

Once the pumping test is completed, the pump is shut off and the recover test begins. Prior to shutting of the pump the data logger will be configured for the recovery portion of the aquifer test. The exact time and the total gallons displayed on the flow meter/totalizer will also be recorded. The pump will be turned off and data logger stepped to collected recovery data. The duration of the recovery test will be determined by the data collected. The recovery test may be conducted for 8 to 16 hours. Personnel conducting the test will determine the duration of the recovery test.

An effluent water sample shall be collected during the pumping test. The analytical data can be used to design a groundwater remediation system. Additional sampling may be required by conditions of a discharge permit. If water is being stored in a holding tank, appropriate samples will be collected per

disposal requirements. The water will be removed to an appropriate disposal facility by a licensed transporter.

Data Evaluation

Data collected during the aquifer test will be evaluated using various graphical and numerical methods, depending on flow (steady or unsteady state) well construction (fully or partially penetrating) and aquifer type (confined, leaky, unconfined, or semi-confined). The aquifer test will be evaluated using more than one method. Analysis of the aquifer test data will be conducted utilizing computer software.

A majority of the aquifer will be conducted using partially penetrating wells in unconfined aquifers under steady state conditions. In general, the curve-fitting method presented by Neuman (1975) or by Boulton (1954) will be used to evaluate transmissivity, storativity and vertical hydraulic conductivity under these conditions (the Boulton method assumes nonsteady state conditions). The Stretitsova's curve-fitting method presented by Kruseman and de Ridder (1990) may also be used for unconfined conditions. In addition, the steady state well equation may be applied (Todd, 1980) to evaluate the hydraulic conductivity (away from the pumping well).

If it is determined that the test was performed under confined aquifer conditions and enough time has elapsed for steady-state conditions to have been met (as defined in the literature), the Jacob distance-draw down and time-draw down methods (Cooper & Jacob, 1946) will generally be applied to evaluate storativity and transmissivity. Alternatively, the Theis curve-fitting method (Theis, 1935) may be employed if steady-state conditions were not reached. In suspected leaky aquifers, the Hantush method (Hantush, 1956) will generally be used.

The capture zone will also be determined using the transmissivity values obtained through the evaluation and following the method initially outlined by Janvandel and Tsang (1986). The data will then be used to determine the construction and design specifications of the proposed system, based on the requirements of the system conceptual design (migration control, dewatering, plume capture).

It must be recognized that even using theoretical models for the data evaluation, some judgment will be necessary in conducting the analyses and applying the calculated parameters to the system design. Different types of aquifers may have similar draw down or response behaviors, and this must be accounted for. A complete explanation of the method used and the reasoning behind the choice of method and an analysis of the results will be presented with the data evaluation.

References

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International Institute for Land Reclamation and Improvement, Wageningen, The Netherlands.

Neuman, S.P. (1975). Analysis of pumping test data from anisotropic unconfined aquifers considering delayed gravity response. *Water Resources Res.*, Vol. 10, p. 303-312.

Theis, C.V. (1935). The relation between the lowering of the piezometric surface and rate and duration of discharge of a well using groundwater storage. *Trans. Amer. Geophys. Union,* Vol. 2, p. 519-524.

Todd, D.K. (1980). Groundwater Hydrology, 2nd edition, John Wiley & Sons Pubs., 535 pp.

APPENDIX D

LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Scott Levin

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

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Scott Levin

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

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Scott Levin

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

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Scott Levin

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

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Scott Levin

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

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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
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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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 Zsadanyi
Project Manager

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX

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

CHAIN of CUSTODY

report to: MIKE DAVIS	phone: 858.569.0692	fax: 569.0695
company: ATC ASSOCIATES INC.	project: E-2 SERVE #100877	
address: 9620 CHESAPEAKE DRIVE 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	TPH's	BTEX	MTBE+OXYS	# of containers	Remarks
28092-1	EX-1/10'	6-24-02	1110	SOIL	ICE	X	X	X	1	
-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 LEDF

Relinquished by:
Signature
Print SCOTT LEVIN
Company ATC ASSOC.
Date 6/25/02 Time 4:10 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
Print JOHN WHITE
Company ZymaX
Date 6/25/02 Time 4:10 PM

email: zymax@ZymaXusa.com

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Scott Levin

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

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Scott Levin

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

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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
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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Scott Levin

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

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Mike Davis 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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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
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Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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
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Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

ZymaX envirotechnology

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

ZymaX envirotechnology

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 Zsadanyi
Project Manager

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

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

ZymaX

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

CHAIN of CUSTODY

report to: Mike Davis	phone: 858.569.0692	fax: 569.0695
company: ATC Associates	project: E-2 Serve 100877	
address: 9620 Chesapeake Dr. Suite 203 San Diego CA 92123	project #: 43.25827.0024	
	sampler: Scott Levin	

ANALYSIS REQUESTED: 8260 (TPHg, BTEX, MTBE + Oxys)

Turnaround Time: ASAP ☐ 48 hr ☐ 12 hr ☐ 72 hr ☐ 24 hr ☐ std ☑

ZymaX use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	# of containers	Remarks
28017-1	VEAS-1/5'	06-20-02	955	Soil	Ice	1	
-2	VEAS-1/10'		1000				
-3	VEAS-1/15'		1010				
-4	VEAS-1/20'		1020				
-5	VEAS-1/25'		1030				
-6	VEAS-1/30'		1040				
-7	VEAS-2/5'		1310				
-8	VEAS-2/10'		1320				
-9	VEAS-2/15'		1330				
-10	VEAS-2/20'		1340				
-11	VEAS-2/25'		1350				

Comments

✓EDF

Please Fax Results

Relinquished by:

Signature: [signature]
Print: Scott Levin
Company: ATC Assoc.
Date: 6/21/02 Time: 0920

Received by:

Signature: [signature]
Print: Tim Kelly
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

email: zymax@ZymaXusa.com

ZymaX

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

CHAIN of CUSTODY

report to: Mike Davis	phone: 858.569.0692	fax: 569.0695
company: ATC Associates	project: E-Z Serve 100877	
address: 9620 Chesapeake Dr. Suite 203 San Diego CA 92123	project #: 43.25827.0024	
	sampler: Scott Levin	

ANALYSIS REQUESTED

Turnaround Time

ASAP ☐ 48 hr ☐ 12 hr ☐ 72 hr ☐ 24 hr ☐ std ☒

ZymaX use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	TPHd	BTEX	MTBE + Oxy's 8260	# of containers	Remarks
020617-12	VEAS-2/30'	6-20-02	1400	Soil	Ice	X	X	X	1	
-13	VEAS-3/5'									
-14	VEAS-3/10'									
-15	VEAS-3/15'									
-16	VEAS-3/20'									
-17	VEAS-3/25'									
-18	VEAS-3/30'									

Comments

✓EDF

Please Fax Results

Relinquished by:

Signature: _____
Print: Scott Levin
Company: ATC Assoc.
Date: 6/21/02 Time: 0820

Received by:

Signature: _____
Print: Jim Reyes
Company: ZymaX
Date: 6/21/02 Time: 0820

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: _____

email: zymax@ZymaXusa.com

ZymaX

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

CHAIN of CUSTODY

report to Scott Mackstruth	phone (858) 561-0692	fax (858) 567-06
company [illegible], Inc.	project Encina 2 105877	
address [illegible] Chesapeake Dr. Ste 203 San Diego, CA 92123	project # 43.25827.00.11	
	sampler [illegible]	

ANALYSIS REQUESTED

Turnaround Time: ASAP ☐ 48 hr ☐ 12 hr ☐ 72 hr ☐ 24 hr ☐ std ☐

ZymaX use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	[illegible]	[illegible]	Vapor Permeability	[illegible]	[illegible]	[illegible]	# of containers	Remarks
	VEAS-2/20'	6/20/12	13:10	S	ICE	X	X	X	X	X	X		
	VEAS-2/25'	6/20/12	16:20	↓	↓	↓	↓	↓	↓	↓	↓		
	[illegible]-1/25'	6/21/12	11:30	↓	↓	↓	↓	↓	↓	↓	↓		

Comments

Relinquished by:
Signature
Print [illegible]
Company [illegible]
Date ____ Time ____

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
Print
Company
Date ____ Time ____

email: zymax@ZymaXusa.com

Page ___ of ___

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Scott Meckstroth ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123	Lab Number: Collected: Received: Matrix:	28167-1 07/08/02 07/09/02 Air
Project: Project Number: Collected by:	EZ Serve #100877 EZS0024 Bryan Hill	Sample Description: Analyzed: Method:	VE2/1 07/10/02 See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.2	ND
Toluene	0.2	ND
Ethylbenzene	0.2	1.4
Xylenes	0.2	2.0
Methyl-t-Butyl Ether (MTBE)	0.2	ND
Total Petroleum Hydrocarbons (Gasoline)	40.	910.

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 TO-14 and GC/MS Combination.
Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

MSD #1
28167-1.xls
DZ/jgt/pv

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Scott Meckstroth ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Bryan Hill

Lab Number:	28167-2
Collected:	07/08/02
Received:	07/09/02
Matrix:	Air
Sample Description:	VE2/2
Analyzed:	07/10/02
Method:	See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.2	0.3
Toluene	0.2	ND
Ethylbenzene	0.2	2.1
Xylenes	0.2	3.0
Methyl-t-Butyl Ether (MTBE)	0.2	ND
Total Petroleum Hydrocarbons (Gasoline)	40.	920.

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 TO-14 and GC/MS Combination.
Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
28167-2.xls
DZ/jgt/pv

Dwain Zsadanyi
Project Manager

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Scott Meckstroth ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Bryan Hill

Lab Number:	28167-3
Collected:	07/08/02
Received:	07/09/02
Matrix:	Air
Sample Description:	VE2/3
Analyzed:	07/10/02
Method:	See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.2	0.3
Toluene	0.2	0.4
Ethylbenzene	0.2	2.0
Xylenes	0.2	3.0
Methyl-t-Butyl Ether (MTBE)	0.2	ND
Total Petroleum Hydrocarbons (Gasoline)	40.	1100.

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 TO-14 and GC/MS Combination.

Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

MSD #1
28167-3.xls
DZ/jgt/pv

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

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

Lab Number:	28167-4
Collected:	07/08/02
Received:	07/09/02
Matrix:	Air

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

Sample Description:	VE3/1
Analyzed:	07/10/02
Method:	See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.2	ND
Toluene	0.2	ND
Ethylbenzene	0.2	0.3
Xylenes	0.2	0.5
Methyl-t-Butyl Ether (MTBE)	0.2	ND
Total Petroleum Hydrocarbons (Gasoline)	40.	500.

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 TO-14 and GC/MS Combination.

Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
28167-4.xls
DZ/jgt/pv/ss

Dwain Zsadanyi
Project Manager

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

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

Lab Number:	28167-5
Collected:	07/08/02
Received:	07/09/02
Matrix:	Air

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

Sample Description:	VE3/2
Analyzed:	07/10/02
Method:	See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.05	ND
Toluene	0.05	0.12
Ethylbenzene	0.05	0.27
Xylenes	0.05	0.46
Methyl-t-Butyl Ether (MTBE)	0.05	ND
Total Petroleum Hydrocarbons (Gasoline)	10.	250.

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 TO-14 and GC/MS Combination.

Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

MSD #1
28167-5.xls
DZ/jgt/pv/ss

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

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

Lab Number:	28167-6
Collected:	07/08/02
Received:	07/09/02
Matrix:	Air

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

Sample Description:	VE3/3
Analyzed:	07/10/02
Method:	See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.05	ND
Toluene	0.05	0.09
Ethylbenzene	0.05	0.33
Xylenes	0.05	0.53
Methyl-t-Butyl Ether (MTBE)	0.05	ND
Total Petroleum Hydrocarbons (Gasoline)	10.	390.

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 TO-14 and GC/MS Combination.

Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
28167-6.xls
DZ/jgt/pv/ss

Dwain Zsadanyi
Project Manager

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Scott Meckstroth ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Bryan Hill

Lab Number:	28167-7
Collected:	07/08/02
Received:	07/09/02
Matrix:	Air
Sample Description:	VE1/1
Analyzed:	07/10/02
Method:	See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.2	ND
Toluene	0.2	ND
Ethylbenzene	0.2	0.4
Xylenes	0.2	1.9
Methyl-t-Butyl Ether (MTBE)	0.2	ND
Total Petroleum Hydrocarbons (Gasoline)	40.	520.

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 TO-14 and GC/MS Combination.
Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

MSD #1
28167-7.xls
DZ/jgt/pv/ss

805.544.4696
www.ZymaXusa.com

71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Scott Meckstroth ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Bryan Hill

Lab Number:	28167-8
Collected:	07/08/02
Received:	07/09/02
Matrix:	Air
Sample Description:	VE1/2
Analyzed:	07/10/02
Method:	See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.2	ND
Toluene	0.2	ND
Ethylbenzene	0.2	ND
Xylenes	0.2	0.5
Methyl-t-Butyl Ether (MTBE)	0.2	ND
Total Petroleum Hydrocarbons (Gasoline)	40.	510.

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 TO-14 and GC/MS Combination.

Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

MSD #1
28167-8.xls
DZ/jgt/pv/ss

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71 Zaca Lane
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fax 805.544.8226

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Scott Meckstroth ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123	Lab Number: Collected: Received: Matrix:	28167-9 07/08/02 07/09/02 Air
Project: Project Number: Collected by:	EZ Serve #100877 EZS0024 Bryan Hill	Sample Description: Analyzed: Method:	VE1/3 07/10/02 See Below

CONSTITUENT	PQL* ppmv	RESULT** ppmv
Benzene	0.2	0.4
Toluene	0.2	ND
Ethylbenzene	0.2	0.4
Xylenes	0.2	1.4
Methyl-t-Butyl Ether (MTBE)	0.2	ND
Total Petroleum Hydrocarbons (Gasoline)	40.	1100.

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 TO-14 and GC/MS Combination.
Note: Analytical range is C4-C12.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

MSD #1
28167-9.xls
DZ/jgt/pv/ss

805.544.4696
www.ZymaXusa.com

71 Zaca Lane
San Luis Obispo CA 93401
fax 805 544.8226

ZymaX FORENSICS

Date received: 7-09-2002
Date analyzed: 7-11-2002

Selected gas concentrations for samples submitted by ATC Associates, Inc.

Sample ID	ZymaX ID	O_2 + Ar	N_2	CH_4	CO	CO_2
		Volume %				
VE2/1	28167-1	19.4	78.7	< 0.05	< 0.05	1.98
VE2/2	28167-2	18.0	80.92	< 0.05	< 0.05	1.08
VE2/3	28167-3	18.4	80.7	< 0.05	< 0.05	0.89
VE3/1	28167-4	20.5	78.4	< 0.05	< 0.05	1.55
VE3/2	28167-5	20.2	79.2	< 0.05	< 0.05	0.66
VE3/3	28167-6	20.2	79.2	< 0.05	< 0.05	0.57
VE1/1	28167-7	17.0	79.0	< 0.05	< 0.05	4.04
VE1/2	28167-8	20.5	78.4	< 0.05	< 0.05	1.11
VE1/3	28167-9	19.0	78.6	< 0.05	< 0.05	2.41
VE1/3	28167-9D	19.1	78.6	< 0.05	< 0.05	2.36
Detection Limit:		0.05	0.05	0.05	0.05	0.05

D=Duplicate Analysis

ZymaX FORENSICS

QA/QC data for selected fixed gases

Analytes	RF x 10^5	RF_D x 10^5	% D	Acceptance Limit %
O_2 +Ar	0.336	0.341	1.5	±10
N_2	0.343	0.342	-0.3	±10
CH_4	0.307	0.323	5.2	±10
CO	0.340	0.341	0.3	±10
CO_2	0.219	0.217	-0.9	±10

RF = Mean response factor from 3 point calibration
RF_D = Daily calibration standard response factor
% D = % Difference
Calibration file: fg174.cal

28167fg.wpd

Supervisor

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

CHAIN of CUSTODY

report to: SCOTT MELCKSTROTH	phone: (858) 569-0692
	fax: (858) 569-0615
company: ATC Associates	project: EZ-Serve 100877
address: 9620 Chesapeake Dr #203, SAN DIEGO, CA 92123	project #: 43.25827.0024
	sampler: BRYAN HILL

Turnaround Time: ASAP ☐ 48 hr ☐ 12 hr ☐ 72 hr ☐ 24 hr ☐ std ☒

ANALYSIS REQUESTED: TPHg, BTEX, MTBE, 1,2-DCA, 1,2-DBA; FIXED GASES

ZymaX use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	TPHg, BTEX, MTBE, 1,2-DCA, 1,2-DBA	FIXED GASES								# of containers	Remarks
28167-1	VE2/1	7-8-02	700	Air		X	↓								1	
-2	VE2/2	7-8-02	830	↓		↓	↓								1	
-3	VE2/3	7-8-02	1000	↓		↓	↓								1	
-4	VE3/1	7-8-02	1015	↓		↓	↓								1	
-5	VE3/2	7-8-02	1145	↓		↓	↓								1	
-6	VE3/3	7-8-02	1315	↓		↓	↓								1	
-7	VE1/1	7-8-02	1330	↓		↓	↓								1	
-8	VE1/2	7-8-02	1500	↓		↓	↓								1	
-9	VE1/3	7-8-02	1630			X	↓								1	

Comments * only run BTEX + MTBE - not 5 oxys per Smelkstroth 7/10/02 - [illegible]

Relinquished by:		Received by:	
Signature	[signature]	Signature	[signature]
Print	BRYAN HILL	Print	Jim Alves
Company	ATC Associates	Company	ZYMAX
Date	7-9-02 Time 1055	Date	7/9/02 Time 1055

Sample integrity upon receipt:
- Samples received intact ☐
- Samples received cold ☐
- Custody seals ☐
- Correct container types ☐

Bill 3rd Party:

PO# ______
Quote yes no

Relinquished by:		Received by ZymaX envirotechnology inc:	
Signature		Signature	
Print		Print	
Company		Company	
Date	Time	Date	Time

email: zymax@ZymaXusa.com

Page __ of __

ZymaX envirotechnology

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

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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

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

Lab Number:	**28180-2**
Collected:	**07/09/02**
Received:	**07/10/02**
Matrix:	**Aqueous**

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

Sample Description:	**EX-1/2**
Analyzed:	**07/15/02**
Method:	**See Below**

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	52.
Toluene	0.5	1.6
Ethylbenzene	0.5	120.
Xylenes	0.5	170.
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	1.1
Percent Surrogate Recovery		115
TOTAL PETROLEUM HYDROCARBONS		
Total Petroleum Hydrocarbons	50.	2900.
BTX as a Percent of Fuel		8

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
28180-2.xls
DZ/jdm/pv/jh

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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

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

Lab Number:	**28180-3**
Collected:	**07/09/02**
Received:	**07/10/02**
Matrix:	**Aqueous**

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

Sample Description:	**EX-1/3**
Analyzed:	**07/15/02**
Method:	**See Below**

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	31.
Toluene	0.5	0.8
Ethylbenzene	0.5	100.
Xylenes	0.5	100.
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	1.1
Percent Surrogate Recovery		114
TOTAL PETROLEUM HYDROCARBONS		
Total Petroleum Hydrocarbons	50.	1300.
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
28180-3.xls
DZ/jdm/pv/jh

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Scott Meckstroth ATC Associates, Inc. 9620 Chesapeake Dr., Ste. 203 San Diego, CA 92123
Project:	EZ Serve #100877
Project Number:	EZS0024
Collected by:	Bryan Hill

Lab Number:	28180-4
Collected:	07/09/02
Received:	07/10/02
Matrix:	Aqueous
Sample Description:	EX-1
Analyzed:	07/10/02 - 07/29/02
Method:	See Below

GENERAL MINERALS

CONSTITUENT	METHOD	UNITS	PQL*	RESULT**
Total Alkalinity	SM 2320B	mg/L CaCO3	5.0	440.
Hydroxide Alkalinity	SM 2320B	mg/L CaCO3	5.0	ND
Carbonate Alkalinity	SM 2320B	mg/L CaCO3	5.0	ND
Bicarbonate Alkalinity	SM 2320B	mg/L CaCO3	5.0	440.
Hardness	SM 2340B	mg/L CaCO3	4.0	570.
Specific Conductance	EPA 120.1	umhos/cm	1.0	1300.
pH	EPA 150.1	pH Units		6.9
Total Dissolved Solids	EPA 160.1	mg/L	20.	790.
Chloride	EPA 300.0	mg/L	0.5	130.
Nitrate as Nitrogen (NO3-N)	EPA 300.0	mg/L	0.4	7.9
Nitrite as Nitrogen (NO2-N)	EPA 300.1	mg/L	0.4	ND
Sulfate	EPA 300.0	mg/L	0.5	54.
Calcium	EPA 200.8	mg/L	0.5	130.
Iron	EPA 200.8	mg/L	0.1	0.8
Magnesium	EPA 200.8	mg/L	0.5	63.
Potassium	EPA 200.8	mg/L	1.0	ND
Sodium	EPA 200.8	mg/L	0.5	99.

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.**

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

28180-4g.xls
DZ/sks/jdm/mlm/jj/ba/ji/mm

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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

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

Lab Number:	**28180-5**
Collected:	**07/10/02**
Received:	**07/10/02**
Matrix:	**Aqueous**

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

Sample Description:	**EX-1/4**
Analyzed:	**07/18/02**
Method:	**See Below**

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	73.
Toluene	0.5	1.3
Ethylbenzene	0.5	160.
Xylenes	0.5	240.
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	2.6
Percent Surrogate Recovery		103
TOTAL PETROLEUM HYDROCARBONS		
Total Petroleum Hydrocarbons	50.	3800.
BTX as a Percent of Fuel		8

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

VA110717
MSD #11
28180-5.xls
DZ/jdm/pv/jh

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ZymaX envirotechnology

QUALITY ASSURANCE REPORT
SPIKE RESULTS

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.

Submitted by,
ZymaX envirotechnology, inc.

VA80715
MSD #8
VA80715q.xls
DZ/jdm/pv/mh

Dwain Zsadanyi
Project Manager

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA80715
MSD #8
VA80715q.xls
DZ/jdm/pv/mh

ZymaX envirotechnology

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.**

Submitted by,
ZymaX envirotechnology, inc.

VA80715
MSD #8
VA80715b.xls
DZ/jdm/mh

Dwain Zsadanyi
Project Manager

ZymaX envirotechnology

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.

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager

VA110717
MSD #11
VA110717q.xls
DZ/jdm/mh

ZymaX envirotechnology

QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS

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		

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

VA110717
MSD #11
VA110717q.xls
DZ/jdm/mh

ZymaX envirotechnology

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.**

Submitted by,
ZymaX envirotechnology, inc.

VA110717
MSD #11
A110717b.xls
DZ/jdm/mh

Dwain Zsadanyi
Project Manager

ZymaX

71 Zaca Lane
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tel 805.544.4696
fax 805.544.8226

CHAIN of CUSTODY

report to: SCOTT MECKSTROTH | phone: (858) 569-0672 | fax: (858) 569-0692

company: ATC Associates | project: EZ SERVE 100977

address: 9620 Chesapeake #203, SAN DIEGO, CA 92123 | project #: 43.25827.0024

sampler: BRYAN HILL

ANALYSIS REQUESTED

Turnaround Time

ASAP ☐ 48 hr ☐ | 12 hr ☐ 72 hr ☐ | 24 hr ☐ std ☒

ZymaX use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	TPHg, BTEX, MTBE 8260	Fuel Oxys	General Minerals	# of containers	Remarks
28180-1	EX-1/1	7-9-02	730	Water		X	X		3	
-2	EX-1/2	7-9-02	1330	Water		X	X		3	
-3	EX-1/3	7-9-02	2200	Water		X	X		3	
-4	EX-1/[illegible]	7-9-02	2200	Water				X	1	
-5	EX-1/4	7-10-02	745	Water		X	X		3	

Comments LUFT EDD ☐

Relinquished by:
Signature: [signature]
Print: BRYAN HILL
Company: ATC Associates
Date: 7-10-02 Time: 1200

Received by:
Signature: [signature]
Print: Michael Castaneda
Company: ZymaX
Date: 7/10/02 Time: 1200

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 _____

APPENDIX E

PUMP TEST DATA AND SOLUTION SETS

AQUIFER PUMP TEST
FORMER E-Z SERVE LOCATION NO. 100877
ATC JOB NO. 43.25827.0024

DATE: July 9, 2002

TIME (2400)	PUMPING WELL FLOW RATE (GPM)	DTW (FT)
	EX-1	EX-1
6:40	0	16.14
7:45	0.55	16.27
8:00	0.55	16.27
8:15	0.55	16.28
8:30	0.55	16.28
9:00	0.55	16.28
9:35	0.91	16.34
9:45	0.91	16.36
10:05	0.91	16.37
10:18	0.91	16.38
10:30	0.91	16.38
10:35	2.00	16.57
10:40	2.00	16.59
10:55	2.00	16.64
11:00	2.00	16.68
11:30	2.00	16.69
12:00	2.00	16.69
12:12	4.16	17.06
13:00	4.16	17.20
13:15	4.16	17.20
13:30	4.16	17.20
13:55	4.16	17.22
14:00	6.00	17.45
14:15	6.00	17.52
14:30	6.00	17.54
14:45	6.00	17.55
15:15	6.00	17.59
16:00	6.00	17.61
16:15	9.50	18.40
16:22	9.50	18.46
16:30	9.50	18.52
17:00	9.50	18.60
17:30	9.50	18.64
17:55	11.25	18.70
18:25	11.25	18.70
19:00	11.25	18.72
19:15	11.25	18.73
20:00	11.25	18.77
21:45	11.25	18.81
22:00	11.25	18.82

NOTES:
1) GPM - flow rate in gallons per minute
2) FT - feet
3) DTW - depth to water in feet below top of casing

Data Set: \\SANDIEGO\E-Z Serve\100877\Reports\Levelogger100877\100877MW3Aqtesolv.aqt
Date: 08/29/02
Time: 19:25:15

PROJECT INFORMATION

Company: ATC Associates Inc.
Client: Ez-Serve
Project: 43.25827.0024
Location: Hayward
Test Date: 7-9-02
Test Well: EX-1

AQUIFER DATA

Saturated Thickness: 50. ft
Anisotropy Ratio (Kz/Kr): 1.

PUMPING WELL DATA

Number of pumping wells: 1

Pumping Well No. 1: EX-1

X Location: 0. ft
Y Location: 0. ft

Partially Penetrating Well
Depth To Top Of Screen: 0. ft
Depth To Bottom Of Screen: 13.8 ft

No. of pumping periods: 8

Pumping Period Data

Time (min)	Rate (cu. ft/min)	Time (min)	Rate (cu. ft/min)
0.	0.	302.	0.56
10.	0.074	410.	0.8
145.	0.122	545.	1.27
205.	0.2674	645.	1.504

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-3

X Location: 17. ft
Y Location: 0. ft

Partially Penetrating Well
Depth To Top Of Screen: 0. ft
Depth To Bottom Of Screen: 13.8 ft

No. of observations: 21429

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.1	0.01	566.6	0.67
0.1333	0.01	566.7	0.67
0.25	0.01	566.8	0.68
0.2833	0.01	566.9	0.68
0.45	0.01	566.9	0.68
0.5	0.02	567.	0.68
0.5167	0.01	567.1	0.68
0.5333	0.01	567.2	0.67
0.5667	0.01	567.3	0.67
0.5833	0.01	567.4	0.68
0.65	0.01	567.4	0.69
0.6833	0.02	567.5	0.69
0.7	0.01	567.6	0.68
0.7167	0.01	567.7	0.69
0.8	0.01	567.8	0.7
0.8333	0.02	567.9	0.69
0.8833	0.01	567.9	0.69
0.9	0.02	568.	0.67
0.95	0.01	568.1	0.68
0.9667	0.02	568.2	0.69
0.9833	0.01	568.3	0.7
1.033	0.01	568.4	0.68
1.05	0.01	568.4	0.69
1.067	0.02	568.5	0.69
1.117	0.02	568.6	0.69
1.2	0.01	568.7	0.7
1.317	0.02	568.8	0.69
1.333	0.03	568.9	0.76
1.367	0.01	568.9	0.68
1.4	0.01	569.	0.7
1.417	0.02	569.1	0.7
1.433	0.01	569.2	0.69
1.45	0.01	569.3	0.69
1.533	0.01	569.4	0.68
1.6	0.01	569.4	0.69
1.767	0.02	569.5	0.69
1.783	0.01	569.6	0.69
1.8	0.01	569.7	0.69
1.867	0.01	569.8	0.69
1.967	0.01	569.9	0.7
2.	0.01	569.9	0.68
2.017	0.02	570.	0.7
2.033	0.01	570.1	0.7
2.05	0.02	570.2	0.7
2.1	0.01	570.3	0.69
2.2	0.01	570.4	0.69
2.233	0.01	570.4	0.69

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
2.25	0.01	570.5	0.68
2.35	0.01	570.6	0.69
2.383	0.01	570.7	0.69
2.533	0.01	570.8	0.7
2.567	0.01	570.9	0.7
2.617	0.01	570.9	0.69
2.667	0.01	571.	0.69
2.683	0.02	571.1	0.7
2.717	0.02	571.2	0.69
2.733	0.01	571.3	0.71
2.767	0.02	571.4	0.7
2.8	0.02	571.4	0.69
2.833	0.02	571.5	0.69
2.85	0.02	571.6	0.7
2.867	0.01	571.7	0.69
2.883	0.01	571.8	0.69
2.917	0.01	571.9	0.72
2.95	0.01	571.9	0.71
2.983	0.01	572.	0.7
3.1	0.01	572.1	0.68
3.117	0.01	572.2	0.68
3.167	0.01	572.3	0.69
3.183	0.01	572.4	0.7
3.233	0.01	572.4	0.68
3.25	0.01	572.5	0.7
3.317	0.01	572.6	0.7
3.433	0.02	572.7	0.69
3.483	0.01	572.8	0.7
3.633	0.01	572.9	0.7
3.65	0.02	572.9	0.7
4.	0.01	573.	0.7
4.15	0.01	573.1	0.69
4.183	0.01	573.2	0.71
4.317	0.01	573.3	0.72
4.483	0.01	573.4	0.7
4.5	0.01	573.4	0.7
5.2	0.01	573.5	0.7
5.55	0.01	573.6	0.69
5.65	0.01	573.7	0.7
5.667	0.01	573.8	0.72
5.767	0.02	573.9	0.7
5.817	0.01	573.9	0.71
5.883	0.01	574.	0.7
5.917	0.01	574.1	0.71
5.933	0.01	574.2	0.71
5.967	0.01	574.3	0.71
6.033	0.01	574.4	0.69
6.167	0.01	574.4	0.69
6.233	0.02	574.5	0.7
6.267	0.02	574.6	0.71
6.283	0.01	574.7	0.71

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
6.333	0.01	574.8	0.72
6.367	0.01	574.9	0.7
6.417	0.01	574.9	0.71
6.467	0.01	575.	0.71
6.483	0.01	575.1	0.71
6.517	0.01	575.2	0.72
6.533	0.01	575.3	0.71
6.567	0.01	575.4	0.7
6.6	0.01	575.4	0.71
6.633	0.01	575.5	0.71
6.65	0.02	575.6	0.7
6.7	0.01	575.7	0.7
6.75	0.01	575.8	0.71
6.767	0.01	575.9	0.71
6.783	0.01	575.9	0.71
6.8	0.01	576.	0.71
6.817	0.01	576.1	0.7
6.833	0.01	576.2	0.72
6.85	0.01	576.3	0.71
6.883	0.01	576.4	0.71
6.9	0.02	576.4	0.7
6.917	0.01	576.5	0.7
6.933	0.01	576.6	0.71
6.95	0.01	576.7	0.72
7.	0.01	576.8	0.71
7.05	0.01	576.9	0.7
7.067	0.01	576.9	0.7
7.083	0.02	577.	0.73
7.1	0.01	577.1	0.71
7.117	0.01	577.2	0.71
7.133	0.02	577.3	0.7
7.15	0.03	577.4	0.7
7.183	0.01	577.4	0.7
7.2	0.02	577.5	0.71
7.217	0.01	577.6	0.71
7.233	0.02	577.7	0.72
7.25	0.03	577.8	0.71
7.267	0.01	577.9	0.72
7.3	0.01	577.9	0.7
7.317	0.01	578.	0.72
7.333	0.02	578.1	0.7
7.35	0.01	578.2	0.71
7.367	0.01	578.3	0.7
7.383	0.01	578.4	0.7
7.4	0.02	578.4	0.7
7.433	0.02	578.5	0.72
7.45	0.01	578.6	0.71
7.467	0.02	578.7	0.72
7.483	0.01	578.8	0.72
7.517	0.01	578.9	0.72
7.533	0.03	578.9	0.72

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
7.55	0.01	579.	0.71
7.567	0.03	579.1	0.71
7.6	0.02	579.2	0.7
7.633	0.02	579.3	0.72
7.65	0.02	579.4	0.71
7.667	0.02	579.4	0.71
7.683	0.03	579.5	0.71
7.7	0.01	579.6	0.73
7.733	0.02	579.7	0.72
7.75	0.02	579.8	0.74
7.783	0.02	579.9	0.72
7.817	0.01	579.9	0.74
7.833	0.01	580.	0.71
7.85	0.01	580.1	0.73
7.867	0.01	580.2	0.71
7.883	0.01	580.3	0.72
7.9	0.03	580.4	0.72
7.917	0.01	580.4	0.72
7.967	0.01	580.5	0.73
7.983	0.02	580.6	0.72
8.	0.01	580.7	0.72
8.017	0.01	580.8	0.72
8.033	0.01	580.9	0.71
8.05	0.01	580.9	0.73
8.067	0.02	581.	0.74
8.083	0.03	581.1	0.72
8.1	0.02	581.2	0.73
8.117	0.01	581.3	0.73
8.133	0.01	581.4	0.74
8.15	0.01	581.4	0.73
8.183	0.01	581.5	0.73
8.2	0.02	581.6	0.72
8.217	0.02	581.7	0.72
8.233	0.03	581.8	0.73
8.25	0.02	581.9	0.72
8.267	0.02	581.9	0.71
8.283	0.01	582.	0.72
8.3	0.01	582.1	0.71
8.317	0.01	582.2	0.73
8.367	0.01	582.3	0.72
8.383	0.03	582.4	0.72
8.4	0.01	582.4	0.74
8.433	0.03	582.5	0.73
8.45	0.01	582.6	0.73
8.467	0.01	582.7	0.74
8.5	0.01	582.8	0.73
8.533	0.01	582.9	0.73
8.567	0.01	582.9	0.72
8.6	0.01	583.	0.73
8.617	0.02	583.1	0.71
8.65	0.01	583.2	0.74

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
8.683	0.01	583.3	0.72
8.7	0.02	583.4	0.74
8.717	0.01	583.4	0.74
8.733	0.03	583.5	0.73
8.75	0.02	583.6	0.72
8.767	0.02	583.7	0.74
8.783	0.01	583.8	0.73
8.8	0.02	583.9	0.74
8.817	0.01	583.9	0.73
8.833	0.01	584.	0.75
8.85	0.03	584.1	0.72
8.867	0.02	584.2	0.72
8.883	0.01	584.3	0.72
8.9	0.02	584.4	0.73
8.917	0.03	584.4	0.73
8.933	0.02	584.5	0.72
8.95	0.03	584.6	0.71
8.967	0.02	584.7	0.71
8.983	0.02	584.8	0.73
9.	0.03	584.9	0.74
9.017	0.03	584.9	0.72
9.033	0.03	585.	0.72
9.05	0.02	585.1	0.72
9.067	0.03	585.2	0.73
9.083	0.04	585.3	0.74
9.1	0.01	585.4	0.73
9.117	0.02	585.4	0.72
9.133	0.02	585.5	0.73
9.15	0.03	585.6	0.72
9.167	0.03	585.7	0.72
9.183	0.03	585.8	0.71
9.2	0.02	585.9	0.72
9.217	0.01	585.9	0.73
9.233	0.03	586.	0.73
9.25	0.03	586.1	0.74
9.267	0.02	586.2	0.72
9.283	0.02	586.3	0.74
9.3	0.01	586.4	0.74
9.317	0.01	586.4	0.73
9.333	0.02	586.5	0.72
9.367	0.01	586.6	0.72
9.383	0.01	586.7	0.74
9.4	0.02	586.8	0.72
9.417	0.01	586.9	0.71
9.433	0.02	586.9	0.73
9.45	0.02	587.	0.72
9.467	0.01	587.1	0.72
9.483	0.02	587.2	0.73
9.5	0.02	587.3	0.73
9.517	0.02	587.4	0.72
9.533	0.01	587.4	0.72

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
9.55	0.02	587.5	0.72
9.583	0.02	587.6	0.73
9.6	0.01	587.7	0.73
9.617	0.01	587.8	0.74
9.633	0.02	587.9	0.73
9.65	0.02	587.9	0.75
9.667	0.01	588.	0.74
9.683	0.03	588.1	0.73
9.7	0.02	588.2	0.73
9.717	0.01	588.3	0.73
9.733	0.02	588.4	0.73
9.75	0.03	588.4	0.73
9.767	0.01	588.5	0.73
9.783	0.02	588.6	0.74
9.8	0.02	588.7	0.74
9.817	0.02	588.8	0.73
9.833	0.01	588.9	0.75
9.85	0.01	588.9	0.73
9.867	0.04	589.	0.74
9.883	0.04	589.1	0.73
9.9	0.03	589.2	0.74
9.917	0.02	589.3	0.74
9.933	0.02	589.4	0.74
9.95	0.02	589.4	0.73
9.967	0.02	589.5	0.75
9.983	0.03	589.6	0.74
10.	0.02	589.7	0.73
10.02	0.03	589.8	0.73
10.03	0.02	589.9	0.73
10.05	0.02	589.9	0.74
10.07	0.02	590.	0.73
10.1	0.01	590.1	0.72
10.12	0.01	590.2	0.74
10.17	0.02	590.3	0.73
10.18	0.01	590.4	0.73
10.2	0.01	590.4	0.74
10.22	0.01	590.5	0.73
10.25	0.01	590.6	0.73
10.27	0.01	590.7	0.74
10.28	0.02	590.8	0.73
10.3	0.03	590.9	0.73
10.32	0.02	590.9	0.74
10.33	0.01	591.	0.73
10.35	0.01	591.1	0.72
10.37	0.01	591.2	0.73
10.38	0.02	591.3	0.73
10.4	0.01	591.4	0.74
10.42	0.02	591.4	0.72
10.43	0.01	591.5	0.73
10.45	0.02	591.6	0.73
10.47	0.01	591.7	0.73

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
10.48	0.02	591.8	0.74
10.5	0.01	591.9	0.74
10.52	0.01	591.9	0.73
10.53	0.01	592.	0.74
10.55	0.01	592.1	0.74
10.57	0.02	592.2	0.74
10.58	0.01	592.3	0.74
10.6	0.03	592.4	0.73
10.62	0.02	592.4	0.74
10.63	0.02	592.5	0.73
10.65	0.01	592.6	0.73
10.67	0.03	592.7	0.73
10.68	0.01	592.8	0.73
10.7	0.03	592.9	0.74
10.72	0.01	592.9	0.73
10.73	0.02	593.	0.73
10.75	0.02	593.1	0.73
10.77	0.03	593.2	0.74
10.8	0.01	593.3	0.73
10.82	0.02	593.4	0.73
10.83	0.02	593.4	0.74
10.85	0.02	593.5	0.74
10.87	0.03	593.6	0.76
10.88	0.02	593.7	0.73
10.9	0.02	593.8	0.74
10.92	0.03	593.9	0.75
10.93	0.01	593.9	0.73
10.95	0.02	594.	0.72
10.97	0.02	594.1	0.73
10.98	0.02	594.2	0.74
11.	0.03	594.3	0.73
11.02	0.01	594.4	0.74
11.03	0.02	594.4	0.74
11.05	0.03	594.5	0.73
11.07	0.02	594.6	0.74
11.08	0.02	594.7	0.73
11.1	0.02	594.8	0.73
11.12	0.01	594.9	0.74
11.13	0.02	594.9	0.75
11.15	0.03	595.	0.73
11.17	0.03	595.1	0.74
11.18	0.02	595.2	0.74
11.2	0.01	595.3	0.73
11.22	0.02	595.4	0.73
11.23	0.03	595.4	0.75
11.25	0.01	595.5	0.74
11.27	0.02	595.6	0.74
11.28	0.02	595.7	0.73
11.3	0.02	595.8	0.73
11.32	0.02	595.9	0.74
11.33	0.03	595.9	0.73

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
11.35	0.02	596.	0.74
11.37	0.02	596.1	0.73
11.38	0.02	596.2	0.75
11.4	0.02	596.3	0.74
11.42	0.02	596.4	0.74
11.43	0.03	596.4	0.74
11.45	0.03	596.5	0.74
11.47	0.02	596.6	0.74
11.48	0.03	596.7	0.73
11.5	0.01	596.8	0.75
11.52	0.02	596.9	0.73
11.53	0.01	596.9	0.75
11.55	0.02	597.	0.74
11.57	0.01	597.1	0.75
11.58	0.01	597.2	0.75
11.6	0.03	597.3	0.74
11.62	0.01	597.4	0.75
11.63	0.03	597.4	0.75
11.65	0.02	597.5	0.74
11.67	0.02	597.6	0.75
11.68	0.02	597.7	0.74
11.72	0.02	597.8	0.75
11.73	0.02	597.9	0.75
11.75	0.01	597.9	0.73
11.77	0.03	598.	0.73
11.78	0.02	598.1	0.75
11.8	0.02	598.2	0.75
11.82	0.03	598.3	0.74
11.83	0.03	598.4	0.74
11.85	0.02	598.4	0.74
11.87	0.01	598.5	0.75
11.88	0.02	598.6	0.75
11.9	0.02	598.7	0.75
11.92	0.01	598.8	0.73
11.93	0.03	598.9	0.74
11.95	0.02	598.9	0.75
11.97	0.02	599.	0.74
11.98	0.02	599.1	0.74
12.	0.02	599.2	0.77
12.02	0.02	599.3	0.75
12.03	0.02	599.4	0.73
12.05	0.03	599.4	0.74
12.07	0.03	599.5	0.76
12.08	0.03	599.6	0.74
12.1	0.03	599.7	0.74
12.12	0.01	599.8	0.74
12.13	0.02	599.9	0.76
12.15	0.01	599.9	0.74
12.17	0.01	600.	0.74
12.18	0.02	600.1	0.75
12.2	0.01	600.2	0.76

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
12.22	0.02	600.3	0.75
12.23	0.01	600.4	0.74
12.25	0.02	600.4	0.76
12.27	0.04	600.5	0.75
12.28	0.02	600.6	0.76
12.3	0.03	600.7	0.74
12.32	0.03	600.8	0.74
12.33	0.03	600.9	0.75
12.35	0.02	600.9	0.75
12.37	0.02	601.	0.75
12.38	0.03	601.1	0.75
12.4	0.04	601.2	0.76
12.42	0.03	601.3	0.75
12.43	0.01	601.4	0.74
12.45	0.02	601.4	0.76
12.47	0.02	601.5	0.77
12.5	0.01	601.6	0.76
12.52	0.03	601.7	0.77
12.53	0.02	601.8	0.75
12.55	0.03	601.9	0.76
12.57	0.02	601.9	0.74
12.58	0.03	602.	0.75
12.6	0.03	602.1	0.75
12.62	0.04	602.2	0.75
12.63	0.01	602.3	0.75
12.65	0.02	602.4	0.77
12.67	0.01	602.4	0.75
12.7	0.02	602.5	0.77
12.72	0.01	602.6	0.75
12.73	0.02	602.7	0.75
12.75	0.01	602.8	0.76
12.77	0.02	602.9	0.75
12.78	0.03	602.9	0.75
12.8	0.01	603.	0.76
12.82	0.02	603.1	0.76
12.83	0.02	603.2	0.76
12.85	0.03	603.3	0.77
12.87	0.01	603.4	0.76
12.88	0.03	603.4	0.76
12.9	0.01	603.5	0.76
12.92	0.01	603.6	0.77
12.93	0.01	603.7	0.74
12.97	0.02	603.8	0.75
12.98	0.02	603.9	0.75
13.	0.02	603.9	0.76
13.02	0.01	604.	0.76
13.03	0.03	604.1	0.77
13.05	0.01	604.2	0.75
13.07	0.02	604.3	0.76
13.08	0.03	604.4	0.75
13.1	0.01	604.4	0.77

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
13.12	0.01	604.5	0.76
13.13	0.02	604.6	0.77
13.15	0.01	604.7	0.76
13.17	0.02	604.8	0.76
13.18	0.01	604.9	0.75
13.2	0.02	604.9	0.76
13.22	0.01	605.	0.77
13.23	0.01	605.1	0.75
13.25	0.02	605.2	0.77
13.27	0.01	605.3	0.78
13.28	0.01	605.4	0.76
13.32	0.02	605.4	0.77
13.33	0.02	605.5	0.78
13.35	0.03	605.6	0.76
13.37	0.02	605.7	0.75
13.38	0.01	605.8	0.76
13.4	0.02	605.9	0.75
13.42	0.02	605.9	0.77
13.43	0.02	606.	0.77
13.45	0.03	606.1	0.77
13.47	0.02	606.2	0.77
13.48	0.02	606.3	0.78
13.5	0.03	606.4	0.77
13.52	0.03	606.4	0.77
13.53	0.03	606.5	0.77
13.55	0.02	606.6	0.76
13.57	0.01	606.7	0.77
13.58	0.02	606.8	0.77
13.6	0.02	606.9	0.77
13.62	0.01	606.9	0.77
13.63	0.01	607.	0.76
13.65	0.03	607.1	0.76
13.67	0.02	607.2	0.75
13.7	0.03	607.3	0.75
13.72	0.01	607.4	0.76
13.73	0.02	607.4	0.76
13.77	0.01	607.5	0.75
13.78	0.02	607.6	0.76
13.8	0.04	607.7	0.77
13.82	0.02	607.8	0.75
13.83	0.02	607.9	0.77
13.85	0.03	607.9	0.76
13.88	0.02	608.	0.77
13.9	0.03	608.1	0.77
13.92	0.01	608.2	0.75
13.93	0.02	608.3	0.77
13.95	0.03	608.4	0.76
13.98	0.01	608.4	0.76
14.02	0.01	608.5	0.76
14.03	0.02	608.6	0.77
14.08	0.02	608.7	0.76

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
14.1	0.01	608.8	0.76
14.12	0.02	608.9	0.75
14.13	0.02	608.9	0.76
14.15	0.01	609.	0.76
14.17	0.02	609.1	0.76
14.18	0.03	609.2	0.77
14.2	0.02	609.3	0.75
14.22	0.01	609.4	0.75
14.23	0.01	609.4	0.77
14.25	0.03	609.5	0.76
14.28	0.03	609.6	0.77
14.3	0.01	609.7	0.77
14.32	0.01	609.8	0.78
14.35	0.02	609.9	0.78
14.37	0.02	609.9	0.78
14.38	0.03	610.	0.76
14.4	0.02	610.1	0.75
14.42	0.01	610.2	0.78
14.47	0.01	610.3	0.76
14.48	0.03	610.4	0.77
14.5	0.02	610.4	0.77
14.52	0.02	610.5	0.76
14.55	0.02	610.6	0.78
14.57	0.03	610.7	0.76
14.58	0.01	610.8	0.76
14.6	0.01	610.9	0.76
14.62	0.02	610.9	0.77
14.65	0.01	611.	0.77
14.67	0.02	611.1	0.76
14.7	0.02	611.2	0.76
14.73	0.01	611.3	0.78
14.75	0.01	611.4	0.78
14.78	0.03	611.4	0.77
14.8	0.02	611.5	0.77
14.82	0.02	611.6	0.76
14.83	0.02	611.7	0.77
14.87	0.01	611.8	0.78
14.88	0.01	611.9	0.77
14.92	0.02	611.9	0.76
14.93	0.01	612.	0.77
14.95	0.02	612.1	0.75
14.97	0.03	612.2	0.77
14.98	0.01	612.3	0.78
15.	0.01	612.4	0.75
15.02	0.02	612.4	0.76
15.03	0.03	612.5	0.77
15.07	0.01	612.6	0.77
15.08	0.02	612.7	0.79
15.1	0.01	612.8	0.77
15.12	0.01	612.9	0.77
15.13	0.01	612.9	0.77

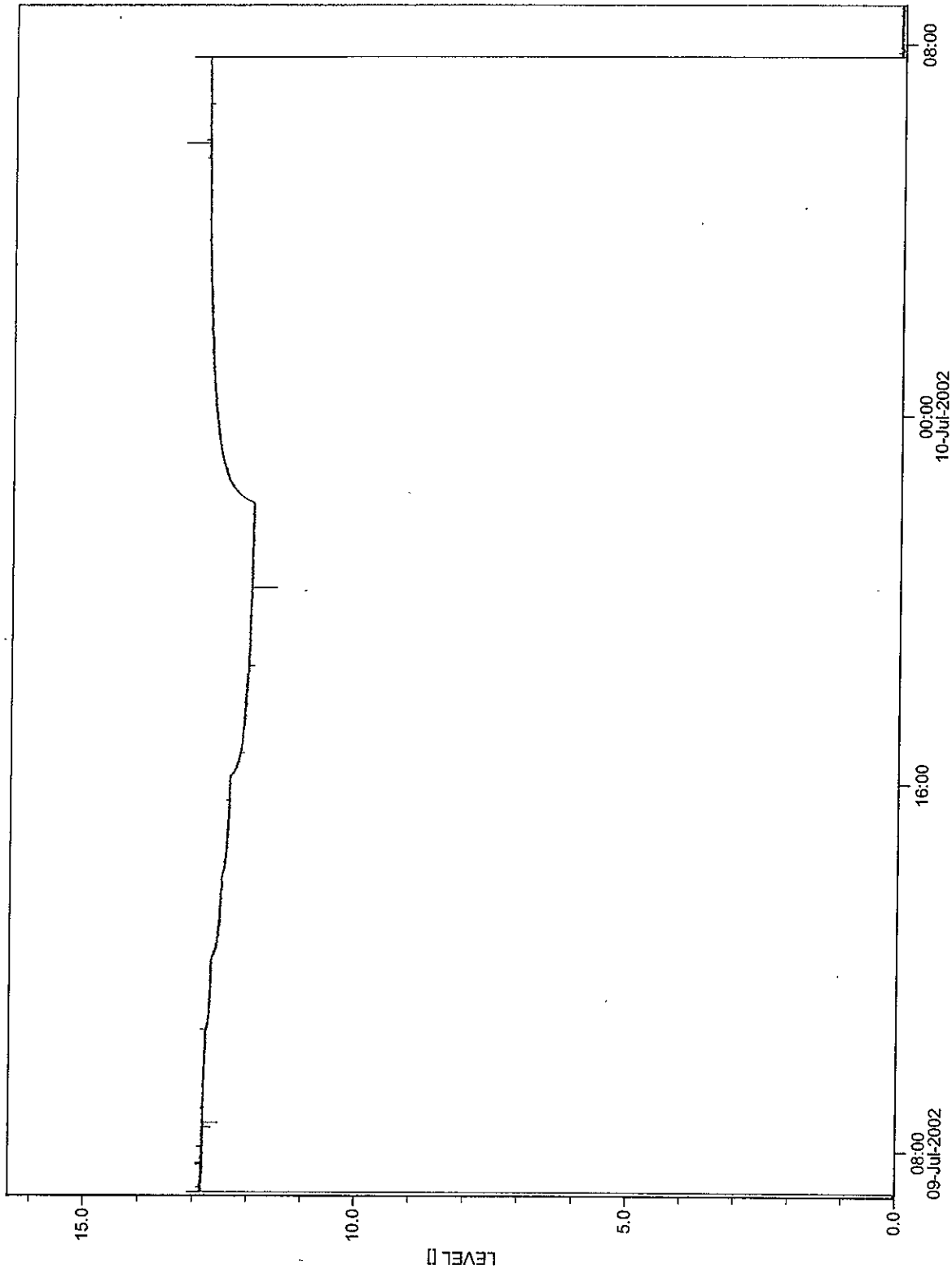
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
15.15	0.01	613.	0.76
15.17	0.01	613.1	0.77
15.18	0.01	613.2	0.77
15.22	0.02	613.3	0.77
15.23	0.03	613.4	0.77
15.28	0.02	613.4	0.75
15.32	0.02	613.5	0.75
15.37	0.02	613.6	0.77
15.38	0.02	613.7	0.76
15.4	0.02	613.8	0.77
15.42	0.01	613.9	0.76
15.43	0.01	613.9	0.76
15.45	0.02	614.	0.77
15.47	0.01	614.1	0.76
15.48	0.01	614.2	0.77
15.5	0.03	614.3	0.76
15.52	0.01	614.4	0.77
15.53	0.02	614.4	0.78
15.55	0.03	614.5	0.77
15.57	0.02	614.6	0.78
15.58	0.03	614.7	0.78
15.6	0.03	614.8	0.77
15.62	0.02	614.9	0.77
15.63	0.02	614.9	0.78
15.65	0.04	615.	0.76
15.67	0.04	615.1	0.75
15.68	0.02	615.2	0.77
15.7	0.01	615.3	0.77
15.72	0.02	615.4	0.76
15.75	0.01	615.4	0.77
15.78	0.01	615.5	0.76
15.8	0.01	615.6	0.78
15.83	0.04	615.7	0.76
15.87	0.02	615.8	0.78
15.88	0.01	615.9	0.77
15.9	0.01	615.9	0.77
15.92	0.01	616.	0.77
15.97	0.02	616.1	0.77
15.98	0.01	616.2	0.77
16.	0.02	616.3	0.78
16.03	0.04	616.4	0.77
16.05	0.02	616.4	0.8
16.07	0.02	616.5	0.77
16.08	0.01	616.6	0.77
16.12	0.02	616.7	0.77
16.13	0.02	616.8	0.78
16.15	0.01	616.9	0.79
16.17	0.01	616.9	0.78
16.18	0.01	617.	0.78
16.2	0.02	617.1	0.78
16.23	0.01	617.2	0.78

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
16.28	0.01	617.3	0.78
16.3	0.01	617.4	0.77
16.33	0.01	617.4	0.79
16.37	0.01	617.5	0.77
16.38	0.02	617.6	0.78
16.4	0.01	617.7	0.78
16.42	0.01	617.8	0.77
16.43	0.03	617.9	0.78
16.45	0.01	617.9	0.76
16.5	0.01	618.	0.78
16.52	0.02	618.1	0.78
16.55	0.02	618.2	0.77
16.57	0.01	618.3	0.77
16.58	0.01	618.4	0.77
16.6	0.02	618.4	0.78
16.62	0.01	618.5	0.77
16.65	0.01	618.6	0.77
16.68	0.02	618.7	0.76
16.7	0.02	618.8	0.77
16.73	0.01	618.9	0.77
16.77	0.01	618.9	0.76
16.78	0.04	619.	0.78
16.8	0.01	619.1	0.78
16.82	0.01	619.2	0.78
16.85	0.01	619.3	0.78
16.87	0.01	619.4	0.77
16.95	0.01	619.4	0.78
16.98	0.01	619.5	0.78
17.03	0.01	619.6	0.78
17.05	0.02	619.7	0.78
17.07	0.03	619.8	0.76
17.13	0.01	619.9	0.77
17.15	0.02	619.9	0.77
17.17	0.02	620.	0.78
17.18	0.01	620.1	0.76
17.2	0.01	620.2	0.78
17.23	0.02	620.3	0.77
17.25	0.03	620.4	0.76
17.28	0.02	620.4	0.77
17.3	0.01	620.5	0.77
17.32	0.01	620.6	0.76
17.33	0.01	620.7	0.77
17.37	0.02	620.8	0.76
17.38	0.02	620.9	0.78
17.4	0.04	620.9	0.75
17.42	0.02	621.	0.77
17.43	0.01	621.1	0.77
17.45	0.01	621.2	0.76
17.47	0.02	621.3	0.78
17.48	0.03	621.4	0.78
17.5	0.02	621.4	0.77

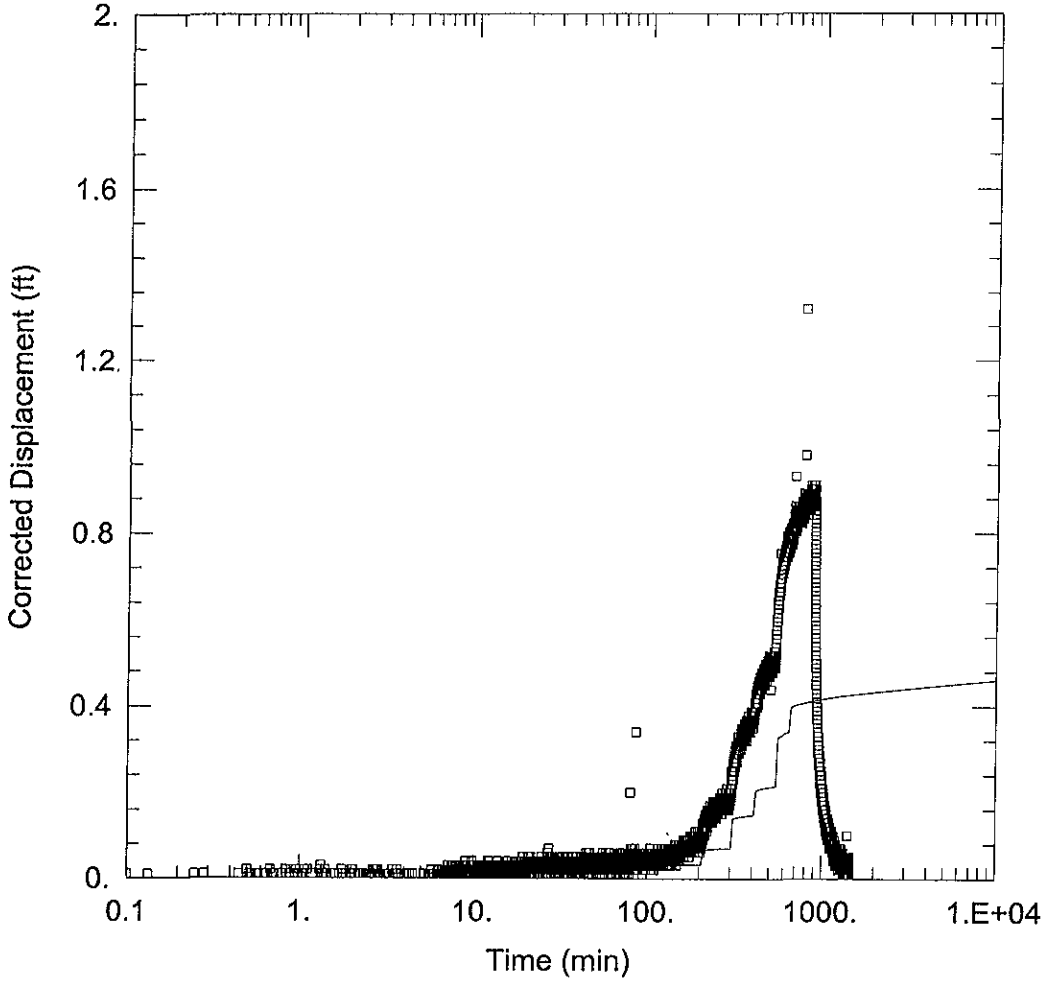
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
17.52	0.02	621.5	0.78
17.53	0.02	621.6	0.77
17.55	0.03	621.7	0.78
17.57	0.02	621.8	0.76
17.58	0.03	621.9	0.77
17.6	0.03	621.9	0.77
17.62	0.03	622.	0.76
17.63	0.03	622.1	0.77
17.65	0.02	622.2	0.78
17.68	0.02	622.3	0.78
17.7	0.02	622.4	0.78
17.72	0.04	622.4	0.79
17.75	0.03	622.5	0.76
17.77	0.02	622.6	0.77
17.78	0.04	622.7	0.77
17.8	0.04	622.8	0.76
17.82	0.01	622.9	0.78
17.83	0.03	622.9	0.77
17.85	0.01	623.	0.77
17.87	0.03	623.1	0.78
17.88	0.03	623.2	0.77
17.92	0.01	623.3	0.78
17.93	0.01	623.4	0.78
17.95	0.04	623.4	0.78
17.97	0.02	623.5	0.77
17.98	0.02	623.6	0.77
18.	0.03	623.7	0.78
18.02	0.02	623.8	0.78
18.03	0.02	623.9	0.79
18.05	0.02	623.9	0.78
18.07	0.02	624.	0.79
18.08	0.02	624.1	0.78
18.1	0.03	624.2	0.78
18.12	0.03	624.3	0.77
18.13	0.02	624.4	0.78
18.15	0.01	624.4	0.78
18.17	0.02	624.5	0.78
18.18	0.03	624.6	0.77
18.2	0.03	624.7	0.79
18.22	0.02	624.8	0.79
18.23	0.02	624.9	0.77
18.25	0.03	624.9	0.77
18.27	0.03	625.	0.78
18.28	0.02	625.1	0.77
18.3	0.02	625.2	0.76
18.32	0.04	625.3	0.77
18.35	0.02	625.4	0.77
18.37	0.02	625.4	0.76
18.4	0.02	625.5	0.77
18.42	0.02	625.6	0.79
18.43	0.04	625.7	0.78

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
18.45	0.04	625.8	0.77
18.47	0.01	625.9	0.77
18.48	0.01	625.9	0.79
18.5	0.03	626.	0.77
18.52	0.03	626.1	0.79
18.53	0.01	626.2	0.79
18.55	0.01	626.3	0.79
18.57	0.01	626.4	0.77
18.58	0.03	626.4	0.78
18.6	0.02	626.5	0.79
18.62	0.03	626.6	0.77
18.63	0.01	626.7	0.78
18.65	0.01	626.8	0.77
18.67	0.02	626.9	0.79
18.68	0.01	626.9	0.78
18.72	0.01	627.	0.78
18.73	0.02	627.1	0.77
18.75	0.04	627.2	0.77
18.77	0.03	627.3	0.79
18.78	0.03	627.4	0.79
18.8	0.03	627.4	0.78
18.82	0.02	627.5	0.77
18.83	0.03	627.6	0.77
18.85	0.02	627.7	0.77
18.87	0.01	627.8	0.78
18.88	0.02	627.9	0.79
18.9	0.02	627.9	0.78
18.93	0.04	628.	0.78
18.95	0.03	628.1	0.8
18.97	0.02	628.2	0.79
18.98	0.03	628.3	0.79
19.	0.01	628.4	0.79
19.02	0.01	628.4	0.79
19.03	0.01	628.5	0.79
19.05	0.01	628.6	0.79
19.08	0.01	628.7	0.77
19.1	0.02	628.8	0.78
19.12	0.02	628.9	0.79
19.13	0.01	628.9	0.78
19.15	0.01	629.	0.79
19.17	0.03	629.1	0.78
19.18	0.04	629.2	0.8
19.2	0.02	629.3	0.78
19.22	0.03	629.4	0.79
19.23	0.01	629.4	0.78
19.25	0.03	629.5	0.78
19.27	0.02	629.6	0.78
19.28	0.02	629.7	0.78
19.3	0.03	629.8	0.78
19.32	0.01	629.9	0.79
19.33	0.02	629.9	0.78

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
19.35	0.03	630.	0.79
19.37	0.02	630.1	0.78
19.4	0.01	630.2	0.78
19.43	0.02	630.3	0.78
19.45	0.03	630.4	0.79
19.47	0.01	630.4	0.79
19.48	0.03	630.5	0.8
19.5	0.02	630.6	0.78
19.52	0.05	630.7	0.79
19.53	0.02	630.8	0.8
19.55	0.03	630.9	0.77
19.57	0.03	630.9	0.79
19.58	0.01	631.	0.78
19.6	0.02	631.1	0.78
19.62	0.02	631.2	0.79
19.63	0.02	631.3	0.79
19.65	0.03	631.4	0.78
19.67	0.01	631.4	0.78
19.68	0.03	631.5	0.78
19.7	0.02	631.6	0.79
19.72	0.02	631.7	0.79
19.73	0.01	631.8	0.81
19.75	0.02	631.9	0.79
19.77	0.03	631.9	0.78
19.78	0.02	632.	0.78
19.8	0.01	632.1	0.78
19.82	0.02	632.2	0.78
19.83	0.03	632.3	0.79
19.85	0.02	632.4	0.78
19.87	0.03	632.4	0.81
19.88	0.01	632.5	0.79
19.9	0.03	632.6	0.78
19.92	0.04	632.7	0.8
19.93	0.01	632.8	0.78
19.95	0.03	632.9	0.8
19.97	0.02	632.9	0.78
19.98	0.03	633.	0.78
20.	0.02	633.1	0.79
20.02	0.02	633.2	0.78
20.03	0.04	633.3	0.76
20.05	0.03	633.4	0.79
20.07	0.02	633.4	0.78
20.08	0.02	633.5	0.78
20.1	0.02	633.6	0.79
20.12	0.01	633.7	0.78
20.13	0.03	633.8	0.79
20.15	0.02	633.9	0.78
20.17	0.03	633.9	0.78
20.18	0.03	634.	0.79
20.2	0.03	634.1	0.78
20.22	0.02	634.2	0.76



ATC Associates Inc.	9620 Chesapeake Dr. 203 San Diego, CA 92123	Tel. Fax	858-569-0692 858-569-0695	date 2002-08-13	
LT-Levelogger (29205), Instrument number: SO#35768 Location: 100877-MW-3				Compensated	
Aquifer Pump and Recharge Test				R = 17'	A4



WELL TEST ANALYSIS

Data Set: C:\Levelogger Files\100877\100877MW3Aqtesolv.aqt
Date: 07/19/02 Time: 13:12:43

PROJECT INFORMATION

Company: ATC Associates Inc.
Client: Ez-Serve
Project: 43.25827.0024
Test Location: Hayward
Test Well: EX-1
Test Date: 7-9-02

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
EX-1	0	0

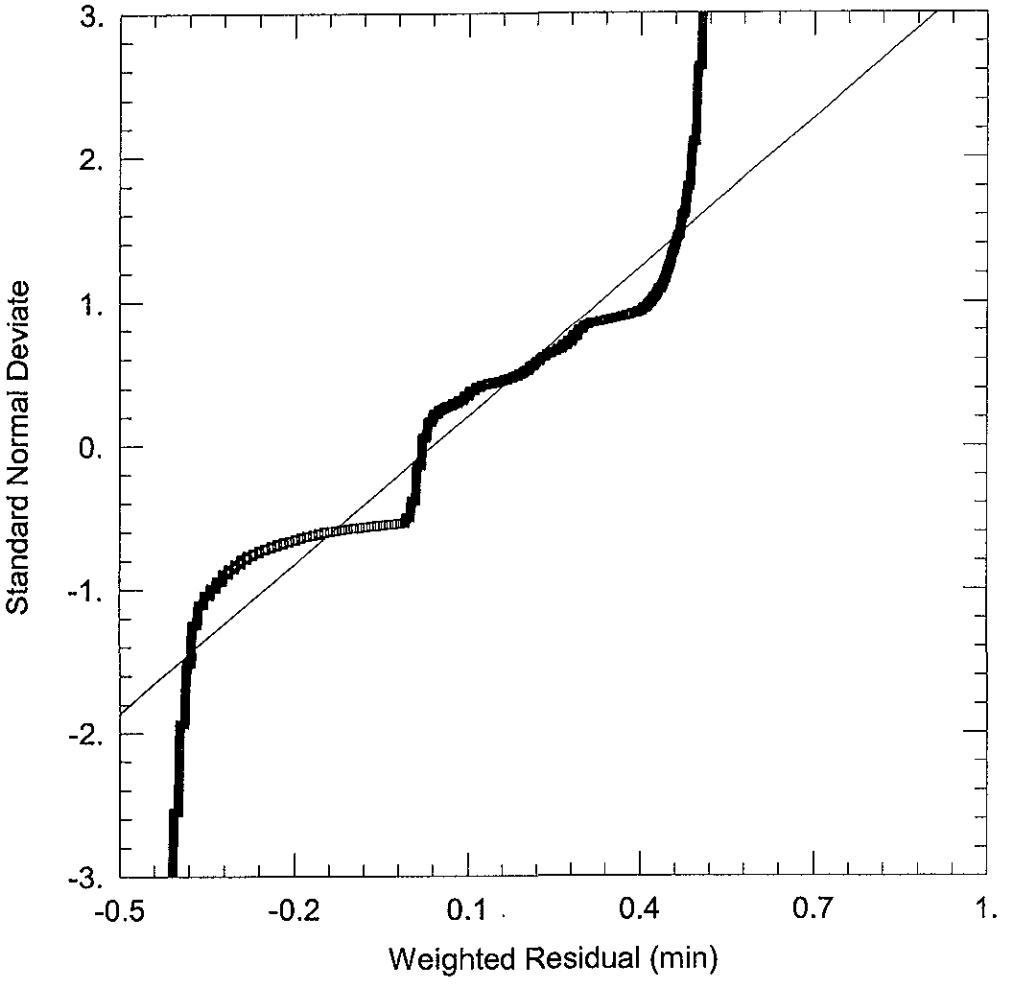
Observation Wells

Well Name	X (ft)	Y (ft)
▫ MW-3	17	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 7.636 ft^2/min
S = 1.E-10
Kz/Kr = 1.
b = 50. ft



WELL TEST ANALYSIS

Data Set: C:\Levelogger Files\100877\100877MW3Aqtesolv.aqt
Date: 08/12/02 Time: 16:48:30

PROJECT INFORMATION

Company: ATC Associates Inc.
Client: Ez-Serve
Project: 43.25827.0024
Test Location: Hayward
Test Well: EX-1
Test Date: 7-9-02

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
EX-1	0	0

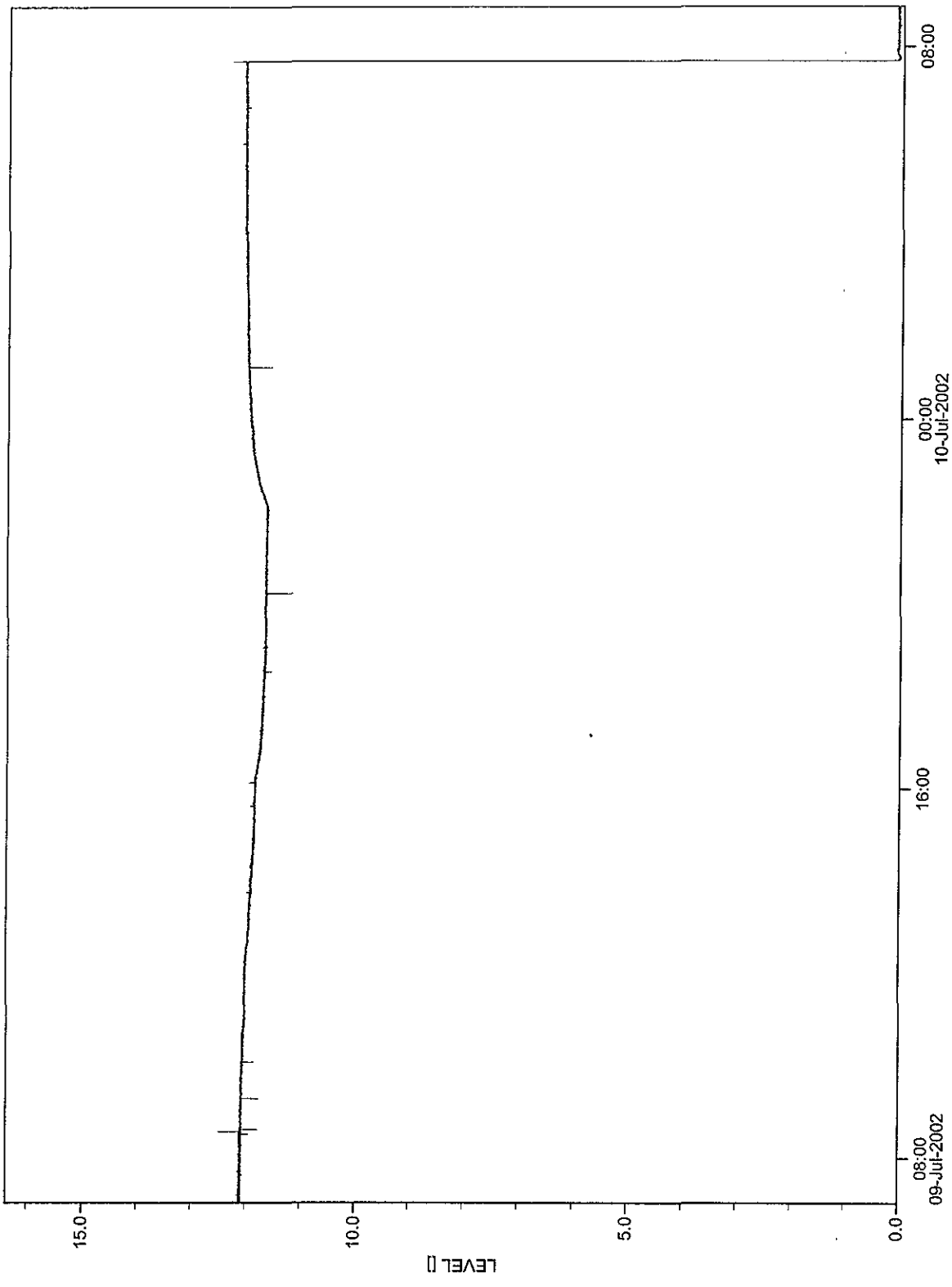
Observation Wells

Well Name	X (ft)	Y (ft)
MW-3	17	0

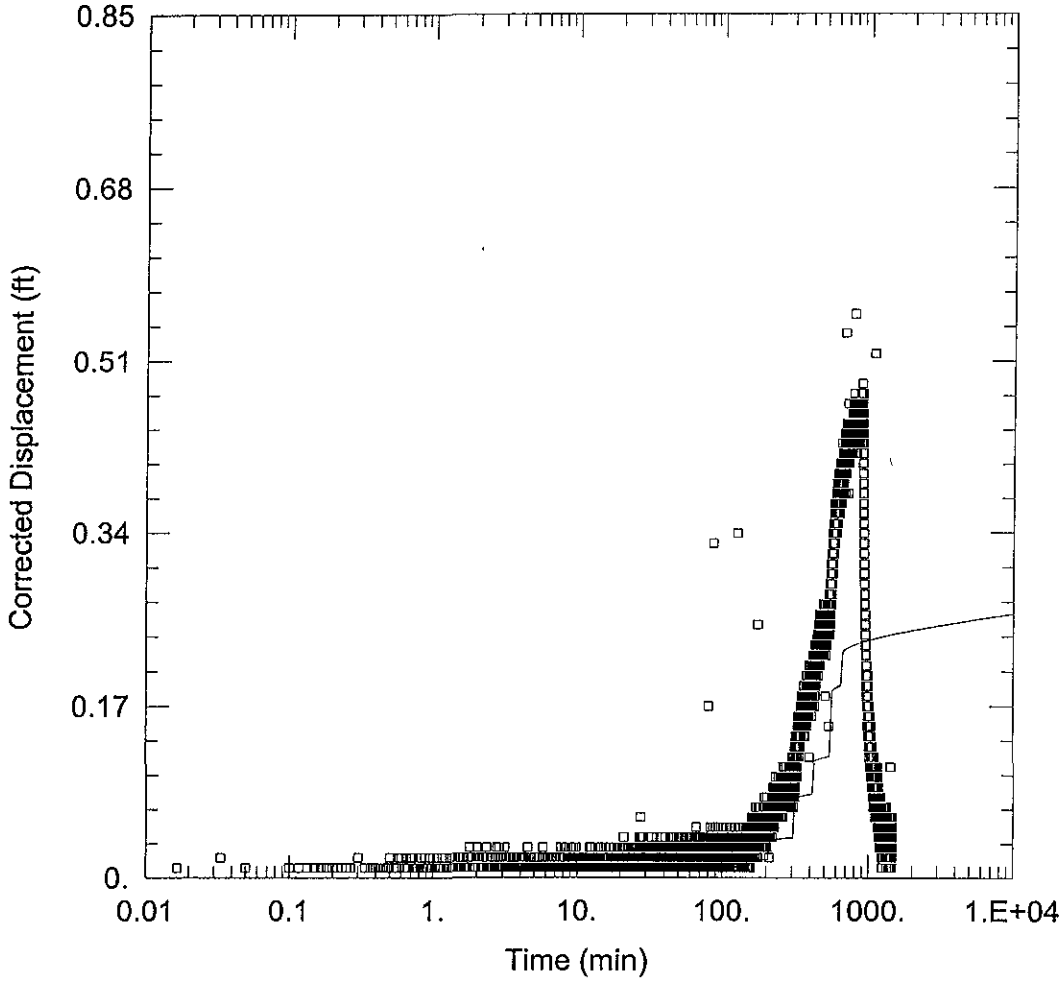
SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 7.809 ft^2/min
S = 1.E-10
Kz/Kr = 1.
b = 50. ft



ATC Associates Inc.	9620 Chesapeake Dr 203 San Diego, CA 92123	Tel. Fax	858-569-0682 858-569-0695	date 2002-08-13	
LT-Levelogger (29208), Instrument number: SO# 3576 Location: 100877-MW-1a				Compensated	
Aquifer Pump and Recharge Test				R= 42'	A4



WELL TEST ANALYSIS

Data Set: C:\Levelogger Files\100877\100877MW1A_Aqtesolv.aqt
Date: 07/19/02 Time: 13:57:44

PROJECT INFORMATION

Company: ATC Associates Inc.
Client: Ez-Serve
Project: 43.25827.0024
Test Location: Hayward
Test Well: EX-1
Test Date: 7-9-02

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
EX-1	0	0

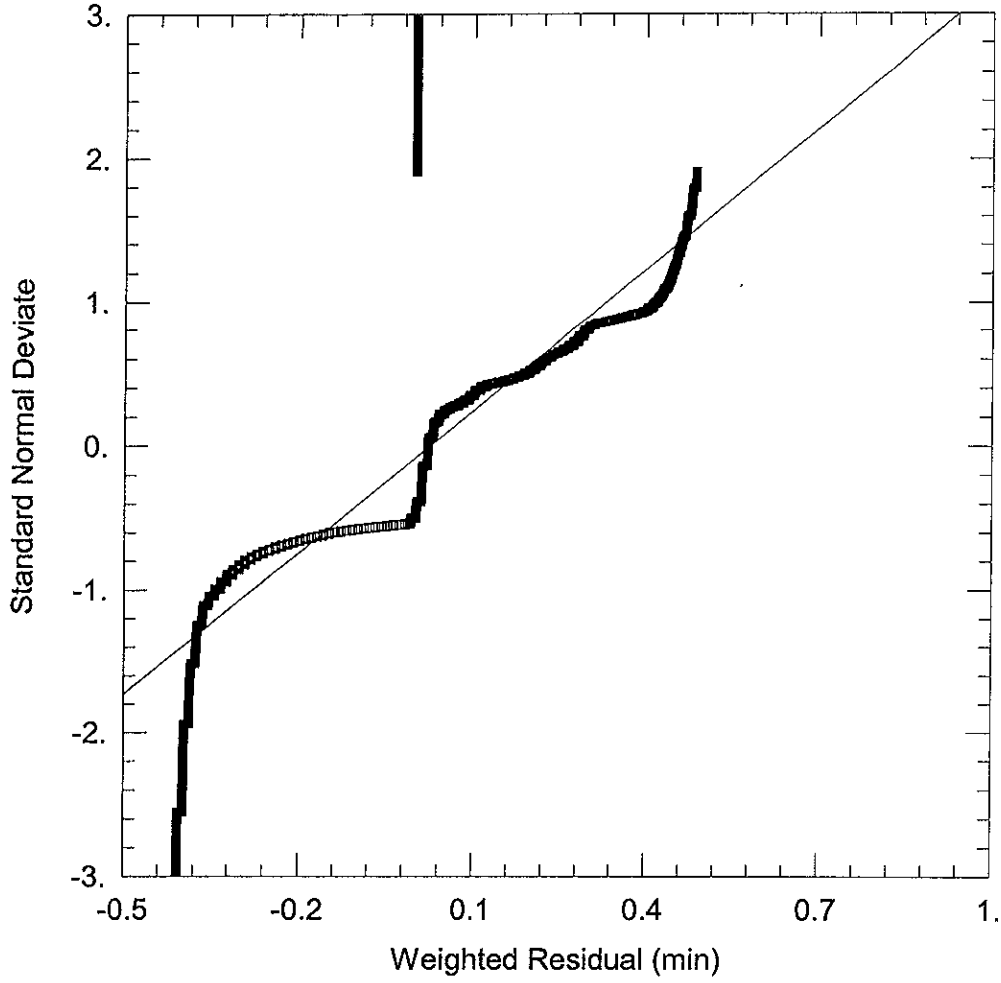
Observation Wells

Well Name	X (ft)	Y (ft)
▫ MW-1a	42	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 12.9 ft^2/min
S = 1.E-10
Kz/Kr = 1.
b = 50. ft



WELL TEST ANALYSIS

Data Set: C:\Levelogger Files\100877\100877MW1A_Aqtesolv.aqt
Date: 08/12/02 Time: 16:49:01

PROJECT INFORMATION

Company: ATC Associates Inc.
Client: Ez-Serve
Project: 43.25827.0024
Test Location: Hayward
Test Well: EX-1
Test Date: 7-9-02

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
EX-1	0	0

Observation Wells

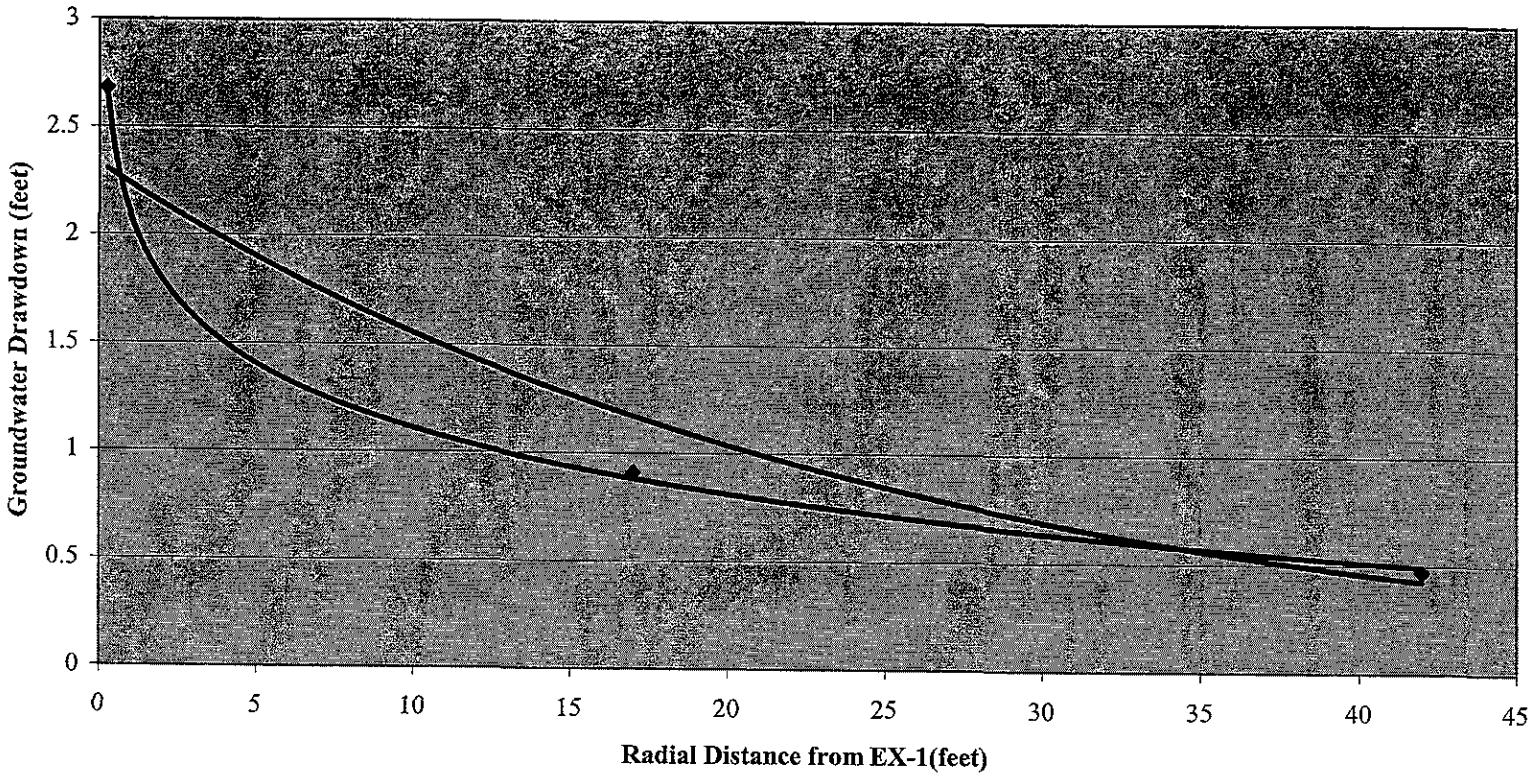
Well Name	X (ft)	Y (ft)
MW-1a	42	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 12.9 ft^2/min
S = 1.E-10
Kz/Kr = 1.
b = 50. ft

Well Drawdown



$y = 2.3292e^{-0.0405x}$

$y = -0.4276\text{Ln}(x) + 2.0923$