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ConocoPhillips Company
1230 W. Washington Street, Suite 212
Tempe, AZ 85281

November 6, 2006

Mr. Donald Hwang
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

RE: Document Transmittal
Fuel Leak Case
76 Station # 7004
15599 Hesperian Blvd., San Leandro, CA

Dear Mr. Hwang:

Please find attached SECOR's *No Further Action Required (NFAR) Report and request for Site Closure* dated November 6, 2006 for the above referenced site. I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached proposal or report are true and correct.

If you have any questions or need additional information, please call me at (602) 452-2507.

Sincerely,

A handwritten signature in black ink that reads "James F. Trotter".

James F. Trotter
Site Manager
Risk Management & Remediation
ConocoPhillips Company

Enclosure

cc: Diane Barclay, SECOR



SECOR
INTERNATIONAL
INCORPORATED

www.secor.com
3017 Kilgore Road, Suite 100
Rancho Cordova, CA 95670
916-861-0400 TEL
916-861-0430 FAX

**NO FURTHER ACTION REQUIRED (NFA) REPORT AND
REQUEST FOR SITE CLOSURE FOR**

CONOCOPHILLIPS

**76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California**

**November 6, 2006
77CP.01631.11.1222**

Prepared by:

A handwritten signature in black ink, appearing to read "Kristen Flesoras".

**Kristen Flesoras
Associate Scientist**

Reviewed by:

A handwritten signature in black ink, appearing to read "Diane M. Barclay".

**Diane M. Barclay, C.H.G.
Senior Geologist**

**Adrian Pérez, P.E.
Associate Engineer**

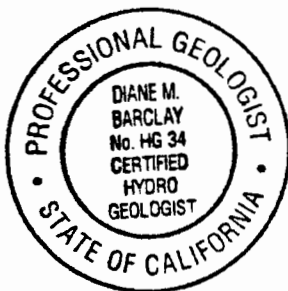


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1.0 INTRODUCTION

On behalf of ConocoPhillips, SECOR International Incorporated (SECOR) submits this *No Further Action Required (NFAR) Report and Request for Case Closure* to assist the Alameda County Environmental Health Services (ACEHS) in its review of the site located at 15599 Hesperian Boulevard, San Leandro, California (Figures 1 and 2) for case closure. This report has been prepared in accordance with the NFAR and site closure reporting criteria outlined in Sections 6.5 and 6.6 of the Regional Water Quality Control Board – Central Valley Region’s (RWQCB-CVR) document entitled *California Environmental Protection Agency, Regional Water Quality Control Board Central Valley Region, Appendix A Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites* (Appendix A). A summary of the site background, results of previous investigations and corrective action, estimated residual mass calculations in soil and groundwater, other pertinent information, and rationale for site closure are presented in the following sections. This report is intended to summarize and supplement the information provided in SECOR’s *No Further Action Analysis and Human Health Risk Assessment* dated October 6, 2006 (SECOR, 2006d).

2.0 SITE HISTORY AND CURRENT SITE CONDITIONS

2.1 Site Background

A summary of historical assessments and remedial action are presented below. A table summarizing soil boring and well construction details is included as Table 1. Historical soil boring logs and well construction details are presented as Appendix B. Historical soil analytical data are presented as Appendix C. Historical groundwater monitoring and analytical data through the third quarter 2006 are presented as Appendix D. Historical figures are included in Appendix E.

In October 1990, Kaprealian Engineering, Inc (KEI) observed the removal of three single-walled, underground storage tanks (USTs) and removal and replacement of product piping at the site. The USTs included one steel 12,000-gallon super unleaded fuel UST and two steel 12,000-gallon regular unleaded fuel USTs, and were replaced with two double-walled 12,000-gallon USTs. No holes or cracks were observed in the excavated USTs. Fifteen confirmation soil samples were collected from the tank pit and analyzed for total petroleum hydrocarbons as gasoline (TPHg), and benzene, toluene, ethylbenzene, and xylenes (BTEX). Soil samples collected from the completed tank excavation at depths of approximately 14 feet to 15 feet bgs contained up to 30 parts per million (ppm) TPHg, 0.054 ppm benzene, 0.047 ppm toluene, 0.46 ppm ethylbenzene, and 0.054 ppm xylenes. A water sample collected from the tank pit (approximately 18.5 feet bgs) contained 4,300 parts per billion (ppb) TPHg, 40 ppb benzene, 1.9 ppb toluene, 0.54 ppb ethylbenzene, and 520 ppb xylenes. Samples collected from the completed pipeline trench excavations contained up to 20 ppm TPHg, 0.015 ppm benzene, 0.15 ppm toluene, 0.13 ppm ethylbenzene, and 1.3 ppm xylenes (KEI, 1990). Over-excavation of petroleum hydrocarbon-impacted soil was performed in these areas, and is further discussed in Section 6.1. The former USTs were replaced with two, 12,000-gallon, double-walled, glasteel unleaded USTs within the same excavation (GR, 2000).

In April and July 1991, KEI supervised the installation of six two-inch diameter monitoring wells (MW-1 through MW-6). Groundwater was encountered at depths of 16.5 to 20.5 feet below ground surface (bgs). The wells were completed to depths ranging from 25 to 26 feet bgs. Selected soil samples and grab groundwater samples from each well were analyzed for TPHg and BTEX. Soil samples contained up to 4,800 ppm TPHg and 23 ppm benzene, 9.1 ppm toluene, 63 ppm ethylbenzene, and 290 ppm xylenes (17.5 feet bgs in MW-3). Post development groundwater samples from these wells contained up to 34,000 ppb TPHg and 6,100 ppb benzene (MW-3; KEI, 1991a and KEI 1991b).

In December 1991, KEI conducted water recovery tests in wells MW-3 and MW-5. The tests indicated a minimal influence in water levels. KEI installed recovery well RW-1 in April 1992 (KEI, 1992a).

In May 1992, KEI conducted a 48-hour aquifer test using RW-1 for extraction and MW-2, MW-3, MW-4, and MW-5 for observation. Drawdown was measured in observation wells at distances of 85 feet, 21 feet, 51 feet, and 60 feet from pumping well RW-1 up to a maximum depth of 0.16 feet. Drawdown was also manually recorded up to a depth of 0.09 feet in wells MW-1 and MW-6, respectively located approximately 69 feet and 103 feet from well RW-1. The saturated zone

was described as semi-confined, and aquifer parameters evaluated from the test were as follows:

- Transmissivity: 16 to 700 ft²/day
- Storativity: 6.3E⁻⁶ to 1.4E⁻²
- Hydraulic Conductivity: 0.3 ft/day to 76 ft/day (KEI, 1992b)

In May 2000, Gettler-Ryan (GR) observed the removal of two 12,000-gallon, double-walled glasteel USTs and fiberglass product piping and dispensers at the site. The USTs were in good condition with no observed cracks or holes. At this time, station-related structures were also demolished and removed. Four soil samples were collected from the tank pit excavation sidewalls at a depth of approximately 13 feet bgs, and four soil samples were collected from the pipeline trenches at depths ranging from approximately three feet to 5.5 feet bgs. The samples were analyzed for TPHg, BTEX, and methyl tertiary butyl ether (MtBE). Tank pit samples contained up to 350 ppm TPHg, 4.8 ppm ethylbenzene, and 0.81 ppm xylenes, but did not contain benzene and MtBE. Pipeline trench soil samples did not contain TPHg, BTEX, or MtBE. Based on the good condition of the removed USTs, with the approval of the San Leandro Fire Department, the majority of the stockpiled pea gravel was reused as backfill material for the excavation. Prior to backfilling, oxygen releasing compound (360 pounds) was placed at the bottom of the UST pit, and additional pea gravel was emplaced to a depth of 12 feet bgs. With regulatory approval, the excavation was brought to grade using properly compacted, engineering fill. Approximately 200 cubic yards of excess pea gravel were removed from the site for disposal (GR, 2000).

In 2001, GR conducted a limited Phase I Environmental Assessment to assess the potential for environmental impact to the site from current or past usage or other properties in the vicinity. Six petroleum hydrocarbon impacted sites were identified within ¼-mile of the site (GR, 2001a).

In November 2001, SECOR conducted a five-day dual phase extraction (DPE) test at the site. The test was performed utilizing wells MW-3 and RW-1 for extraction. During the test, applied vacuum was approximately 25 inches of mercury; vapor extraction flow rates ranged from approximately 20 to 155 standard cubic feet per minute (scfm); and groundwater extraction flow rates ranged from 0.25 to 3.0 gallons per minute (gpm). Influent vapor concentrations dropped from a high of 5,200 parts per million by volume (ppmv) TPHg at the start of the test to 440 ppmv TPHg at the end of test. Based on the data collected during the test, approximately 36.55 pounds of vapor phase TPHg, 0.56 pounds of vapor phase benzene, and 0.47 pounds of vapor phase MtBE were removed from the subsurface. The radius of influence was estimated at 15 to 55 feet for MW-3, and 48 to 85 feet for RW-1 (SECOR, 2002).

In September 2002, GR drilled and collected samples from five direct push soil borings (G-1 through G-5) in the vicinity of the Kragen Auto Parts building and the former USTs. Soil and groundwater samples were collected from each boring, and were analyzed for TPHg, BTEX, and fuel oxygenates. Soil samples did not contain the analytes requested, except for sample GP-3 @13.5 feet which contained 0.051 milligrams per kilogram (mg/kg) MtBE and 0.083 mg/kg tertiary butyl alcohol (TBA). Groundwater samples contained up to 96,000 ppb TPHg (G-4W), 4,300 ppb ethylbenzene (G-5W), 300 ppb TBA (G-3W), and 360 ppb MtBE (G-5W, GR, 2002).

In August 2005, SECOR conducted an investigation at the site which included drilling and sampling 23 direct push soil borings (SB-1 through SB-23), at total depths of 19 feet bgs to 28 feet bgs. Soil and groundwater samples were collected from each boring, and analyzed for TPHg, BTEX, and fuel oxygenates. Laboratory analysis of the soil samples indicated detections for the requested constituents in seven of the 23 soil borings at maximum concentrations of 0.024 mg/kg ethylbenzene (SB-21), 0.022 MtBE (SB-18), and 0.024 mg/kg TBA (SB-18). Groundwater samples contained up to 4,100 µg/L TPHg (SB-17), 14 µg/L benzene (SB-21), 1.4 µg/L toluene (SB-4), 340 µg/L ethylbenzene (SB-21), 9.4 µg/L xylenes (SB-4), 180 µg/L MtBE (SB-4), 71 µg/L TBA (SB-17), and 1,100 µg/L ethanol (SB-4, SECOR, 2005b).

In January 2006, SECOR advanced an additional 14 soil borings (SB-24 through SB-37) and installed an additional four groundwater monitoring wells (MW-7 through MW-10). At least one soil sample was collected from each borehole, and groundwater samples were collected from the boreholes except from SB-24, SB-25, SB-26, SB-28, and SB-31. The samples were analyzed for TPHg, BTEX, fuel oxygenates, and lead scavengers. Maximum concentrations in the soil were reported as 46 mg/kg TPHg (SB-30 at 5.5 feet bgs), 0.29 mg/kg toluene (SB-30 at 5.5 feet bgs), 1.2 mg/kg ethylbenzene (SB-30 at 2.5 feet bgs), 7.8 mg/kg xylenes (SB-30 at 2.5 feet bgs), 0.0058 mg/kg MtBE (SB-34 at 19 feet bgs), and 0.010 mg/kg TBA (SB-24 at 2.5 feet bgs). Concentrations of benzene, di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (EtBE), ethanol, 1,2-dichloroethane (1,2-DCA), and ethylene dibromide (EDB) were not present in soil (SECOR, 2006a).

In April 2006, SECOR prepared a startup report for the portable DPE system at the site (SECOR, 2006b). The system was started on March 20, 2006, and continues to operate.

In June 2006, SECOR prepared a work plan for additional offsite assessment (SECOR 2006c). This work was proposed in the event that additional assessment to the southeast became necessary.

Monitoring and sampling of the site wells has been performed since the second quarter 1991. Between 1991 and 1995, monitoring and sampling was conducted quarterly. Between 1996 and 2001, the well network was monitored and sampled semiannually. From January 2002 to July 2003, the well network was monitored and sampled monthly. Currently, ten wells (MW-1 through MW-10 and RW-1) are sampled quarterly. Groundwater samples are collected from each well, and analyzed for total purgeable petroleum hydrocarbons (TPPH), BTEX, MtBE, and ethanol. Groundwater samples from wells MW-7 through MW-10 are additionally analyzed for other fuel oxygenates (TBA, DIPE, EtBE, and TAME), 1,2-DCA, and EDB. Analysis for the presence of TBA in site wells was initiated during the third quarter 2006. The groundwater gradient has been mainly to the southwest and east-southeast, with variations to the north/northeast and northwest. A rose diagram illustrating groundwater flow directions through the third quarter 2006 is presented as Figure 3.

Reports documenting the aforementioned investigations and remedial action are listed in Section 13.0.

2.2 Historical, Current, and Potential Future Site Use

The site previously was a Gemco Department Store, which contained a gasoline retail dispensing facility that operated from 1967 to 1984 (GR, 2001a), prior to occupation of the site by Target Corporation. The gasoline service station began operating as a 76-branded Service Station in 1984. The station was decommissioned, and subsurface tanks, piping, and aboveground components, except for the building, were removed in 2000. The building was later used as a Kragen Auto Parts store, and is currently vacant. The site is currently a paved parking lot within the Target department store complex. Locations of the former USTs and dispenser islands are shown on Figure 2. The Target department store is scheduled to be redeveloped as a Wal-Mart retail facility; the former Kragen Auto Parts store building may be demolished; and an In-N-Out Burger restaurant is scheduled for construction within the current parking area in 2007 (SECOR, 2006d).

The properties surrounding the site are utilized for commercial purposes. Based on current land use and the location of the site near the freeway and the intersection of two busy streets, it is expected that site will continue to be used for commercial/industrial purposes in the future (SECOR, 2006d).

3.0 GEOLOGY AND HYDROGEOLOGY

The subsurface has been identified to consist of poorly-graded sand, silty sand, and clayey sand interbedded with fat clay and sandy clay. Based on the borings from 2005 and 2006 assessments, relatively laterally continuous silty and clean sand layers were present beneath the site from approximately 5 feet to 10 feet bgs and from 21 feet to 25 feet bgs. Laterally continuous layers of fat clay and sandy clay were present beneath the Site from the ground surface to 5 feet bgs and from approximately 10 feet to 21 feet bgs. Groundwater was generally first encountered at approximately 13 feet bgs, and the static water level was at approximately 11.5 feet bgs. A perched water table was encountered at approximately 10 feet bgs during drilling in soil boring SB33 (SECOR, 2006a). Groundwater existed within the sand between 21 and 25 feet bgs, and within the clay above this sand. Boring logs are included in Appendix B. Historical geologic cross-sections are included in Appendix E. Updated geologic cross-sections including data acquired over recent site investigations are presented as Figure 4.

From the commencement of water level monitoring in 1991 through August 25, 2006, the depth to groundwater at the site has ranged from 10.01 to 16.71 feet bgs (SECOR, 2006f). Historical groundwater elevations and depths to water are presented in Appendix D.

4.0 SENSITIVE RECEPTORS

4.1 Historical Sensitive Receptor Surveys

In 1996, Pacific Environmental Group (PEG) performed a ¼-mile radius water supply well survey. Four documented wells were identified, including two domestic irrigation wells, one industrial well, and one well of unknown use. The closest of these wells was approximately 2,000 feet south of the site (PEG, 1996).

In 2001, GR performed a ½-mile radius sensitive receptor survey. Three domestic wells were identified within 2,500 feet of the site. Two of the wells were located 1,650 and 2,300 feet south and west-northwest of the site. The third well was located approximately 2,275 feet east-southeast of the site. GR also indicated that the closest surface water bodies were the San Lorenzo Creek, situated approximately 800 feet southwest of the site, and Estudillo Canal, located approximately 2,300 feet northwest of the site. Water within the San Lorenzo Creek and Estudillo Canal flows westerly/southwesterly toward the San Francisco Bay. According to GR, the City of Oakland and surrounding areas of San Leandro and San Lorenzo obtained their drinking water supply from an aqueduct from the Pardee or Comanche Reservoirs in Northern California (GR, 2001b).

Historical sensitive receptor survey data is included in Appendix F.

4.2 Updated Sensitive Receptor Survey

In October 2006, SECOR updated the sensitive receptor survey to locate receptors within 2,000 feet of the site. SECOR reviewed well drillers' logs on file at the State of California Department of Water Resources (DWR); contacted the ACEHS, East Bay Municipal Utilities District (EBMUD), City of San Leandro Public Works Department (CSLPWD), and Alameda County Public Works Department (ACPWD) for additional information pertaining to the existence of water wells within 2,000 feet of the site; and conducted field reconnaissance of the area. Fourteen wells at 12 locations were identified within the search radius. Another eight wells at five locations were identified just outside of the search radius. Three additional wells with unspecified addresses or locations were also found during the survey. Water supply well data are included on Table 2. The locations of the water supply wells and surface water bodies are presented on Figure 5.

Information obtained from the DWR, ACEHS, ACPWD, EBMUD, and CSLPWD did not indicate the presence of water production wells in the site vicinity that were operated by municipal or utility district agencies. SECOR performed a search of available DWR well records on October 13, 2006, and did not identify municipal or utility district wells. Mr. Don Hwang of the ACEHS on October 19, 2006 indicated that wells were present within the site vicinity, but could not provide confirmation of their use or locations. According to the EBMUD on October 19, 2006, their agency did not own or operate any water production wells within the site vicinity. In a discussion with Mr. John Collins of the CSLPWD on October 20, 2006, Mr. Collins also indicated that there were no municipal water supply wells owned and operated by the agency in the site vicinity. On October 20, 2006, SECOR obtained information from a database of water

supply wells maintained by the ACPWD, and no municipal or agency water wells were identified in this database.

The closest well within the 2,000-foot search radius was a domestic well (Well B) completed at an approximate depth of 410 feet bgs, located at a residence approximately 250 feet south-southwest of the site. Details pertaining to the construction of the well were not available; however, according to information obtained on October 20, 2006 from a water supply well database maintained by the ACPWD, the well was documented as abandoned. Three other wells, two of which were listed as abandoned and one of which was documented of unknown status, were also identified at the same location as Well B; these wells are listed on Table 2 and shown on Figure 5 at the location S. Field reconnaissance indicated that this property is now a commercial development.

While assessing the area in the field, an irrigation well operated by the State of California Department of Transportation (CalTrans) was located approximately 300 feet west of the site (Well E). Information regarding this well was not available from the DWR or ACPWD.

Seven other wells (the depth of one of which is unknown) identified within the search radius were classified as irrigation wells ranging in depth from 25 feet to 275 feet bgs (Wells M through R, and T). The existence of these wells was not confirmed during reconnaissance of the area on October 24, 2006 due to the following explanations: complete addresses were not documented in the ACPWD database (Well M), redevelopment of the property into commercial establishments (Wells O, Q, R), address could not be located (Well T), owner not available to confirm the existence of the well (Well P), and Twin Nursery was not located in the field (Well N). According to the ACPWD, another well of unknown use was present at the Twin Nursery location; however, it was documented as abandoned. The closest of these wells with the potential to remain in existence was a 27-foot deep irrigation well (Well P), located approximately 1,350 feet east of the site.

Other domestic/irrigation wells identified within the search radius included wells at locations C, F, G, J, and L. Well C was verified in the field at a residence located approximately 1,800 feet southeast of the site; the existence of this 70-foot deep well was confirmed, but the well was inactive. Two other shallow wells were located at residences approximately 1,500 feet (Well F) and 1,750 feet (Well G) southwest of the site; however, these wells were not located in the field, and the property has been redeveloped into apartments. The 370-foot deep well (classification unknown) owned by A.L. Christensen (Well J) could not be verified in the field due to discrepancies in the location of the well on the historical PEG survey map and on the DWR log; SECOR estimated that the well is located approximately 1,800 feet to the southwest. The 511-foot deep domestic well (Well L), previously identified by GR and owned by Greenwood Corporation (15803 Hesperian Boulevard), was not found at the address (approximately 1,750 feet south/southeast of the site), which is now occupied by Hall Orthodontics. Personnel who have been on-site for 26 years did not know of a well on-site.

SECOR's survey also indicated five well locations outside the 2,000-foot search radius (Wells A, D, H, I, and K). Wells at location A are discussed below. One 600-foot deep test hole was located at Arroyo High School (Location D, approximately 3,900 feet southwest); however, the San Lorenzo Unified School District (SLUSD) indicated that no well existed at the high school. The existence of a 31-foot deep domestic/irrigation well identified by PEG as located at 754

Grant Avenue (Well H) was confirmed in the field on October 15, 2006, approximately 2,200 feet south-southwest of the site. This well is an inactive well, currently not in use by the resident as a result of a broken pump. The location of an industrial, 524-foot deep well, previously located at the San Lorenzo Nursery (Well I) within a ¼-mile of the site by PEG was determined to be outside the 2,000-foot search radius by SECOR (approximately 2,700 feet to the northwest). The existence of this well, and another 720-foot deep well of unknown use that was identified on-site from a DWR log on file, could not be verified in the field, as the area has been redeveloped into a commercial business park. Both wells are illustrated on Figure 5 at location I. The 80-foot deep irrigation well identified by PEG within a ¼-mile of the site at 15600 Lorenzo Avenue (Well K) was located in the field; however, its location was confirmed outside the search radius at approximately 2,800 feet to the southwest. Its current status, whether active or inactive, is unknown.

Three wells were identified at San Lorenzo High School (location A) approximately 2,300 feet east-northeast of the site. A DWR drillers' log for the well installed in 1951 indicated that the well was an irrigation well, completed at a depth of 616 feet bgs. In a conversation with Ms. Karen Langmaid, Director of Operations for SLUSD on October 24, 2006, Ms. Langmaid indicated that the well is actively used on the school property. Although SECOR confirmed the existence of an irrigation well at San Lorenzo High School, the construction details and usage of this well was different than another well at the same location that was documented in the historical well search performed by GR and included in the database provided by the ACPWD. A log for the well identified by GR was not found on record at the DWR; this well at San Lorenzo High School was documented as a domestic well, completed at a depth of 194 feet bgs. The ACPWD database also cited a third well at San Lorenzo High School; according to the ACPWD, this well was classified as an irrigation well, completed at a depth of 610 feet bgs. SECOR returned to the school on October 24, 2006, and found no evidence of the two other wells on-site. According to Ms. Langmaid of the SLUSD, who has been employed at the institution for over 26 years, the only well existing at the school, which continues to be used, is the 616-foot deep irrigation well.

In addition to the two high schools, San Lorenzo High School and Arroyo High School, identified in the site vicinity at approximately 1,900 feet to the east-northeast and 3,600 feet to the southwest, respectively, other sensitive receptors in the area that were identified during previous sensitive receptor surveys include the San Lorenzo Creek and Estudillo Canal, both of which were observed in the field as concrete-lined, at distances of approximately 800 feet southwest and 2,300 feet northwest of the site, respectively. Aerial photographs of the site area and a conversation with the CSLPWD also confirmed that San Lorenzo Creek flowed within a concrete-lined channel in the vicinity of the site (SECOR, 2006d).

5.0 UTILITY SURVEY

On March 18, 2005, SECOR conducted a preferential pathway survey to delineate underground utilities with the potential to act as conduits of groundwater beneath the site (SECOR, 2005a). Underground utilities located on the property by Cruz Brothers, an underground utility locating contractor, consisted of power lines at estimated depths ranging from two to three feet bgs, a sewer lateral at an estimated depth of four feet bgs, communication lines at an estimated depth of 30 inches bgs, and water lines of undetermined depth. According to the EBMUD, two water mains were located along the eastern side of Hesperian Boulevard; however, information regarding the depths of the water lines was not provided. Sewer and storm water mains were also located along the eastern side of Hesperian Blvd at respective depths of approximately six feet and seven feet bgs. A map illustrating the locations and depths of the utilities beneath and in the vicinity of the site is included in Appendix E. Based upon the review of historical depths to water, which varied from approximately 10 feet to 17 feet bgs (SECOR, 2006f), SECOR concluded that the identified utilities and associated utility trenches did not exhibit the potential to act as preferential pathways for contaminant migration.

6.0 PETROLEUM HYDROCARBON DISTRIBUTION

6.1 Distribution of Soil Impacts

Review of historical soil data from the initial UST and product line removal in 1990 indicated that elevated concentrations of petroleum hydrocarbons, specifically TPHg and BTEX, were most consistently detected beneath and in the immediate vicinity of the former USTs (A1 through A3, B1 through B3, C1 through C3) at depths of approximately 14 feet to 15 feet bgs, in excavation samples SW5 to the south, and boring MW-3 to the southwest at depths ranging from approximately 14.5 to 18 feet bgs. TPHg and benzene were detected in these areas at maximum concentrations of 4,800 ppm and 23 ppm, respectively. Soil samples collected from the former product line trenches to the east and south of the UST complex also contained elevated concentrations of petroleum hydrocarbons in shallow soil samples collected at depths from 2.5 feet to three feet bgs (P1 and P2); the highest concentrations of TPHg and benzene were detected at respective concentrations of 3,900 ppm and 1.1 ppm (KEI, 1990, 1991a, 1991b).

Over-excavation was performed in the areas of the former USTs, laterally from the initial UST excavation approximately four feet in each direction, and to a depth of approximately 19 feet bgs. Soil samples collected from the sidewalls of the excavation at a depth of approximately 18 feet bgs (SW1 through SW4) above the depth of groundwater encountered within the excavation (approximately 18.5 feet bgs) contained relatively lower levels of petroleum hydrocarbons. As a result of elevated concentrations of petroleum hydrocarbons in a soil sample collected from the sidewall of the over-excavation along the southern boundary (TPHg at 998 ppm), an additional soil sample (SW5[20]) was collected approximately 20 feet south of the location of the original tank pit sidewall at a depth of approximately 18 feet bgs. This sample contained lower levels of TPHg (30 ppm) and other BTEX constituents (KEI, 1990).

Over-excavation was also performed in the areas of highest impact along the product trenches to depths ranging from approximately 5.5 feet to 8 feet bgs. Additional soil samples collected in the areas of P1 through P3 from the aforementioned depth range also contained relatively lower levels of TPHg and BTEX (KEI, 1990).

Soil samples collected during demolition and closure of the 76 Service Station in May 2000 indicated that contamination in soil was limited to areas adjacent to the west and north sides of the former UST pit. Relatively lower levels of TPHg up to 350 ppm, and low to non-detectable concentrations of BTEX were detected in these areas in samples collected at a depth of 13 feet bgs, and soil samples collected from the excavated product lines at depths to approximately 5.5 feet bgs did not contain petroleum hydrocarbons. MtBE was not detected in soil samples collected from the vicinity of the USTs and beneath the product lines (GR, 2002).

Recent investigations conducted in September 2002, August 2005, and January 2006 indicated the absence of TPHg, BTEX, fuel oxygenates, 1,2-DCA, and EDB in the majority of soil samples collected in the immediate and greater vicinity of the former USTs and product lines to a maximum depth of 28 feet bgs. Low levels of one or more constituents of TPHg (up to 46 mg/kg), toluene (0.029 mg/kg), ethylbenzene (1.2 mg/kg), and xylenes (7.8 mg/kg) were detected in vadose/capillary fringe-zone soil samples collected from 2.5 to 10 feet bgs in SB-30,

which was drilled in the vicinity of the former product line east of the former USTs. A trace concentration of ethylbenzene was detected at 22 feet bgs in a soil sample from SB-21, located near the former USTs. Trace levels of MtBE and/or TBA were detected in capillary fringe/saturated zone soil samples collected at depths generally ranging from 10 feet to 13 feet bgs in samples collected mainly in the area and immediately to the south/southwest (downgradient) of the USTs (MW-9, G-3, SB-17 through SB-19, and SB-24) and former product lines (SB-23 and SB-29). Low levels of MtBE were also present in soil samples collected further downgradient to the southwest (SB-4, SB-34, and SB-37) from depths ranging from 10.5 feet to 22 feet bgs, and a low level of TBA was present in the sample collected cross-gradient/downgradient of the USTs to the northwest (SB-6) at a depth of 13 feet bgs. Maximum concentrations of MtBE and TBA were detected during these phases of assessment at respective concentrations of 0.051 mg/kg and 0.083 mg/kg (GR, 2002; SECOR, 2005b and 2006a). Total lead was detected in the majority of the soil samples collected during the August 2005 and January 2006 assessments up to a concentration of 13 mg/kg.

Based on the results of recent assessments, residual concentrations of petroleum hydrocarbons and fuel oxygenates within the source area (former USTs) and vicinity have naturally attenuated over time and are relatively low, and the lateral extent of impacts in soil have been delineated. The vertical extent of impact in soil has been delineated with the non-detectable results from the sample from boring SB-10 at 28 feet bgs. The majority of petroleum hydrocarbon mass within the source area was removed during the removal and replacement of the USTs in October 1990. Historical soil data are included in Appendix C. Locations of sampling points are included on Figure 2, and historical figures in Appendix E. Soil analytical data is included on the Generalized Geologic Cross-Sections, Figure 4.

6.2 Distribution of Groundwater Impacts

Review of historical concentrations of petroleum hydrocarbons indicated that the highest concentrations of one or more of the analytes were generally detected in wells MW-3 and RW-1, and in grab groundwater samples from borings G-2 through G-5. These wells and borings are located in the immediate vicinity and downgradient (west-southwest) of the former UST area. A groundwater sample collected from the former UST pit in October 1990 contained TPHg and benzene at respective concentrations of 4,300 ppb and 40 ppb. Maximum site concentrations of TPHg, benzene, and MtBE were detected at 96,000 µg/L (G-4), 6,600 µg/L (MW-3), and 3,300 µg/L (MW-3, EPA Method 8021B), respectively. Concentrations of petroleum hydrocarbons and MtBE have generally declined over time, and continue to be limited to the vicinity of wells MW-3, MW-5, and RW-1. Over the last eight consecutive quarters, TPHg, benzene, and MtBE have been detected in these wells at maximum concentrations of 8,400 µg/L (MW-3), 3.2 µg/L (MW-3), and 110 µg/L (MW-5). During the third quarter 2006, trace levels of MtBE were detected in wells MW-1 through MW-3 and MW-6, which have historically not contained MtBE, and within well MW-8 up to a maximum concentration of 11 µg/L (MW-8, SECOR, 2006f). With the exception of well MW-6, these wells are located in the immediate vicinity of the former USTs. Analysis of concentration trends is further discussed in Section 6.3.

Analysis of groundwater samples from the monitoring well network (MW-1 through MW-6 and RW-1) for the presence of TBA and other fuel oxygenates, with the exception of ethanol, has historically not been performed. Since June 2003, groundwater samples from these wells have not contained ethanol at levels at or above the laboratory method reporting limit, except for 990

µg/L detected in MW-4 in October 2004. Grab groundwater samples collected from borings G-1 through G-5 during the September 2002 assessment conducted by GR, grab groundwater samples collected from borings SB-1 through SB-21, SB-23, SB-27, SB-29, SB-30, SB-33 through SB-37, and MW-7 through MW-10 during the August 2005 and January 2006 investigations conducted by SECOR, and purged groundwater samples from wells MW-7 through MW-10 from the initial sampling event performed in May 2006 were analyzed for other fuel oxygenates consisting of TBA, DIPE, TAME, EtBE, and lead scavengers 1,2-DCA and EDB. With the exception of TBA, which was present in grab groundwater samples from borings G-3, SB-4 through SB-6, SB-16, SB-17, and SB-29 up to a maximum concentration of 300 µg/L (G-3), other fuel oxygenates and lead scavengers were not detected at or above specified laboratory method reporting limits.

During the third quarter 2006, groundwater samples were collected from the entire monitoring well network, and analyzed for the presence of TBA in addition to TPHg, BTEX, MtBE, and ethanol. Groundwater samples from wells MW-7 through MW-10 were also analyzed for the presence of other fuel oxygenates (TAME, DIPE, and EtBE) and lead scavengers 1,2-DCA and EDB. None of these fuel oxygenates and lead scavengers were detected in the specified wells at or above laboratory method reporting limits (SECOR, 2006f).

Review of groundwater analytical results from groundwater monitoring events, soil boring assessments, and the recent installation of additional groundwater monitoring wells (MW-7 through MW-10) indicated that the lateral extent of TPHg, BTEX, and MtBE has been delineated by relatively low to non-detectable concentrations in borings G-1, SB-6, SB-7, SB-9, wells MW-1 and MW-2 to the north, borings SB-11 through SB-16 and well MW-6 to the east and south, and borings SB-1 through SB-4, SB-16, SB-32, and SB-33 to the west and southwest. Grab samples from borings SB-34 through SB-37, and recently installed wells MW-7 and MW-10, which are situated further to the west/southwest, contained relatively low levels of MtBE up to a maximum concentration of 57 µg/L. Groundwater samples collected following purging from wells MW-7 and MW-10 during the second and third quarter 2006, which may be considered more representative of subsurface conditions, contained low levels of TPHg (95 µg/L in MW-7, third quarter 2006) and MtBE (17 µg/L in MW-7 and 3.9 µg/L in MW-10 in the second quarter 2006, SECOR, 2006f). Although TBA was present in some of the grab groundwater samples as previously stated, it was absent in the groundwater monitoring wells during the initial sampling event. Based on the initial sampling, a widespread dissolved TBA plume does not exist beneath the site.

Review of groundwater analytical data and geology of soil borings indicates that the vertical extent of petroleum hydrocarbons, MtBE, and TBA is delineated beneath the site and site vicinity. Well RW-1, which is located nearest the source area, is screened in silty sand and the upper portions of a saturated clay layer below the first water-bearing zone to a total depth of 27.5 feet bgs. TPHg, BTEX, and MtBE concentrations in this well have significantly declined over time to relatively low levels. A grab groundwater sample from boring SB-10, located adjacent to the former eastern wall of the USTs, was also collected at a depth of 28 feet bgs from the upper portion of the saturated clay layer below the first water-bearing zone; this sample contained non-detectable concentrations of TPHg, BTEX, fuel oxygenates, 1,2-DCA, and EDB. Grab groundwater samples collected from the moist to saturated clay layer below the first water-bearing zone from borings SB-4 and SB-5 at a depth of 25 feet bgs contained one or more constituents of TPHg, BTEX, MtBE, and TBA at relatively low levels. However, groundwater

samples collected following purging from wells MW-7, MW-9, and MW-10 during the second and third quarter 2006 indicated the presence of low (less than 100 µg/L) or non-detectable levels of TPHg, non-detectable levels of BTEX, low (less than 20 µg/L) or non-detectable concentrations of MtBE, and non-detectable concentrations of TBA. Although the fat clay layer at a depth of approximately 25 to 28 feet bgs may contain low levels of petroleum hydrocarbons, MtBE, and TBA, it may act as a barrier to the vertical migration of contaminants into deeper zones.

Historical groundwater analytical data through the third quarter 2006 are included in Appendix D. Locations of sampling points are included on Figure 2, and historical figures, including the most recent TPHg, benzene, and MtBE isoconcentration contour maps prepared by TRC, are included in Appendix E.

6.3 Analysis of Concentration Trends in Groundwater

In SECOR's October 6, 2006 *No Further Action Analysis and Human Health Risk Assessment* (SECOR, 2006d), SECOR evaluated groundwater concentration trends in wells MW-3, MW-5, and RW-1 by graphical interpretation of data, and using the Mann-Whitney U Statistical Test. The Mann-Whitney U Statistical Test was applied using historical TPHg data from wells MW-3, MW-5, and RW-1, and using historical MtBE data from wells MW-5 and RW-1 through the second quarter 2006. Graphical and statistical analysis of the data indicated that a declining TPHg trend was evident in well MW-3, and declining MtBE trends were present in wells MW-5 and RW-1. Although declining TPHg trends were observed over the course of monitoring since 1991, no trend was established after the application of the Mann-Whitney U Statistical Test for TPHg concentrations in wells MW-5 and RW-1, due to fluctuating concentrations over the last eight sampling events (SECOR, 2006d).

7.0 SITE REMEDIATION

7.1 Removal of Petroleum Hydrocarbon-Impacted Soil and Groundwater During Historical Excavation Activities

Although KEI's report documenting excavation of USTs and product lines in October 1990 does not indicate the volume of soil removed, GR stated without reference that approximately 1,600 cubic yards of petroleum hydrocarbon-impacted soil were removed from these areas (GR, 1990). The area of over-excavation is illustrated on a figure included in Appendix E. Since the source of the volume removed cannot be substantiated, SECOR performed calculations to estimate the volume of soil removed in the areas of the USTs and product lines. SECOR estimates that approximately 1,023 cubic yards of soil were removed from these areas (Appendix G). Approximately 5,000 gallons of petroleum hydrocarbon-impacted groundwater were also removed from the former UST pit during tank removal activities (KEI, 1990).

7.2 Passive Remediation Techniques

Oxygen releasing compound was installed in well MW-5 in 1996, and was removed from the well in 1999 (GR, 2001b).

Oxygen releasing compound (360 pounds) was also placed in the bottom of the UST pit at an undocumented depth during the tank removal activities in 2000 to facilitate the biodegradation of residual petroleum hydrocarbon mass beneath the site (GR, 2000).

7.3 DPE

As previously stated, SECOR performed DPE pilot testing between November 5 and 10, 2001 utilizing wells MW-3 and RW-1. DPE tests were performed on well MW-3 for 5.5 hours, RW-1 for 14 hours, and simultaneously on wells MW-3 and RW-1 for 72 hours. Estimated radii of influence ranged from 15 to 55 feet (MW-3), 48 to 85 feet (RW-1), and from 61 to 85 feet (wells MW-3 and RW-1 combined). Based on influent vapor concentrations, average flow rates, and the duration of the test, an estimated 36.55 pounds of TPHg, 0.56 pounds of benzene, and 0.47 pounds of MtBE were removed from the subsurface. Approximately 13,060 gallons of groundwater were removed from beneath the site (SECOR, 2002).

Based on the positive results of the DPE pilot test, this remedial technology was implemented at the site to target petroleum hydrocarbon impacts in soil and groundwater in the vicinity and downgradient of the former USTs, utilizing wells MW-3, MW-5, and RW-1. On March 20, 2006, SECOR performed the start-up of a portable DPE system consisting of a 100-gallon liquid/vapor separator, a Solleco 350-scfm thermo/catalytic oxidizer with a Travani 25-horsepower (hp) liquid ring pump, a 6,500-gallon holding tank with secondary containment, and a 1,000-gallon propane tank for the generator and abatement of the oxidizer. Currently, the DPE system is operating at the site. Operation of the DPE system through the third quarter 2006 has resulted in the removal of approximately 397,450 gallons of groundwater from beneath the site. In terms of mass removal, the operation of the DPE system (groundwater extraction [GWE] and soil vapor extraction [SVE] combined) through the third quarter 2006 has resulted in the removal of approximately 6.79 pounds (1.11 gallons) of TPHg, 0.154 pounds (0.025 gallons) of MtBE, and

0.023 pounds (0.003 gallons) of TBA from beneath the site (SECOR, 2006f). Concentrations and cumulative mass removal estimates through the third quarter 2006 are included in Tables 3 and 4.

Although operating the portable DPE system has effectively resulted in the removal of petroleum hydrocarbon and MtBE mass from beneath the site, the DPE system is no longer feasible or cost-efficient. Influent mass recovery rates from the remediation system are low despite a high vapor radius of influence, and will likely continue to be low due to low residual levels of hydrocarbon constituents in the groundwater and soil vapor. Therefore, SECOR recommends shutting the DPE system down.

In SECOR's October 6, 2006 *No Further Action Analysis and Human Health Risk Assessment* (SECOR, 2006d), SECOR performed calculations to conservatively estimate the time frame for residual levels of benzene to reach the maximum contaminant level (MCL) of 1.0 µg/L and the public health goal (PHG) of 0.15 µg/L, and residual levels of MtBE to reach the primary MCL of 13 µg/L and the secondary MCL of 5.0 µg/L. Results indicated that background levels of benzene were capable of reaching the MCL and PHG in 1.45 years (532 days) and 6.77 years (2,470 days), respectively. Residual levels of MtBE were capable of attenuating to levels at or below the primary MCL between 3.11 years (1,134 days) and 5.17 years (1,888 days), and at or below the secondary MCL between 5.69 years (2,077 days) and 7.76 years (2,832 years). These estimates suggest that natural attenuation is a viable remedial alternative in place of DPE, based on the low magnitude of residual benzene and MtBE concentrations beneath the site.

8.0 ESTIMATED RESIDUAL PETROLEUM HYDROCARBON MASS

8.1 Remaining Mass in Soil

The estimated mass of TPHg, benzene, and MtBE in soil without taking into account the operation of the DPE system and the October 1990 UST and product line excavations were calculated at 2,758.86 pounds, 9.52 pounds, and 0.172 pounds, respectively. Estimated TPHg and benzene mass remaining in soil were calculated by subtracting the calculated mass removed during excavation of the USTs and product lines in October 1990 and the amount of mass removed from the SVE component of the portable DPE system (Table 3) from the total estimated mass of TPHg and benzene beneath the site before excavation. The estimated mass of MtBE remaining in soil is a conservative estimate, as the samples collected during excavation of USTs and product lines in October 1990 were not analyzed for the presence of MtBE. Based on these calculations, SECOR estimates that approximately 68.18 pounds of TPHg, 1.34 pounds of benzene, and 0.172 pounds of MtBE remain beneath the site. Assumptions and calculations of the estimated contaminant mass in soil before and after excavation, and figures illustrating the plume areas are presented in Appendix G.

8.2 Remaining Mass in Groundwater

SECOR calculated estimated remaining mass in groundwater based on specified assumptions, average concentrations of TPHg, benzene, and MtBE detected in wells during the second and third quarter 2006 during operation of the DPE system, and areas of the dissolved plume included on figures in Appendix G. Conservative mass estimates of remaining TPHg, benzene, and MtBE were calculated at 2.366 pounds, 0.000 pounds, and 0.054 pounds, respectively.

9.0 RESULTS OF RISK ASSESSMENT

In October 2006, SECOR submitted the results of a human health risk assessment (SECOR, 2006d). Analysis of risk was based on the assumption that shallow groundwater beneath the site may be used as a potable drinking water source or is possibly hydraulically connected to a deeper water-bearing zone as pursuant to criteria outlined in the East Bay Plain Groundwater Basin Beneficial Use Evaluation Report (RWQCB, 1999). Based on the current and future land use, which consists of and will likely remain primarily commercial/industrial in nature, SECOR evaluated the following exposure pathways: (1) commercial/industrial workers' and customers' inhalation of vapors emanating from soil and/or groundwater to indoor and outdoor air, and (2) direct contact of commercial/industrial workers with shallow impacted soil (less than 10 feet bgs).

Analysis of soil data obtained from investigations conducted in September 2002, August 2005, and January 2006 indicated that concentrations of TPHg, BTEX, MtBE, TBA, and lead detected in shallow (less than or equal to 10 feet bgs) and deeper soils (between 10 feet and 15 feet bgs) did not exceed Regional Water Quality Control Board – San Francisco Bay Region (RWQCB-SFBR) Tier 1 environmental screening levels (ESLs) for the direct contact exposure scenario. Concentrations of BTEX and MtBE in shallow and deeper soils also did not exceed RWQCB-SFBR Tier 1 ESLs for the vapor intrusion to indoor/outdoor air exposure pathway.

Analysis of the mean concentrations of TPHg, toluene, ethylbenzene, and xylenes concentrations in well MW-3, and the mean benzene and MtBE concentrations in well MW-5, the wells containing the highest concentrations of the stated analytes, over the last four consecutive quarters indicated that the concentrations of these constituents did not exceed RWQCB-SFBR Tier 1 ESLs for the vapor intrusion to indoor/outdoor air exposure pathway.

TPHg and MtBE concentrations within vapor samples from wells MW-3, MW-5, and RW-1 that were collected during the operation of the DPE system did not exceed their respective commercial/industrial RWQCB-SFBR Tier 1 ESLs. Although the vapor samples were not analyzed for TBA, low concentrations of TBA were detected in shallow soil samples from borings G-3 and SB-18 advanced north of the former Kragen Auto Parts store. Since the physical characteristics of TBA are similar to those of MtBE, concentrations of MtBE were used to estimate the potential risk of exposure of TBA through the inhalation pathway. MtBE was detected at an order-of-magnitude in concentration less than the TBA RWQCB-SFBR Tier 1 ESL.

Results of the human health risk assessment indicated that residual petroleum hydrocarbons, MtBE, and TBA in soil, groundwater, and soil vapor beneath the site and site vicinity did not present an unacceptable risk to human health or the environment. Details of the human health risk assessment are included in SECOR's *No Further Action Analysis and Human Health Risk Assessment* dated October 6, 2006 (SECOR, 2006d). Data used for the human health risk assessment are included in Appendix H.

10.0 RESULTS OF FATE TRANSPORT MODELING

SECOR evaluated natural attenuation and migration of the dissolved MtBE plume beneath the site and site vicinity using the BIOSCREEN model. The model allows examination of three scenarios: (1) solute transport with no decay, (2) solute transport with first order decay, and (3) solute transport with instantaneous biodegradation reaction. In an effort to provide the most conservative estimate of plume migration, SECOR used only the no degradation and first order decay scenarios to evaluate the plume at the site. Using defined inputs, and the highest MtBE concentration over the last four consecutive quarters in groundwater from well MW-5 (72 µg/L), the well considered as the leading edge of the plume and used conservatively as the “zero distance from the source area”, results of the modeling indicated that after at least 200 years and with no biodegradation, MtBE above the secondary MCL (5 µg/L) would not migrate beyond approximately 700 feet from the site. With biodegradation, SECOR concluded that MtBE concentrations exceeding the primary MCL (13 µg/L) and secondary MCL would not migrate greater than 45 feet from the current leading edge of the plume over the same time period. Essentially, the downgradient wells would not be impacted by the migration of the dissolved MtBE plume within at least 200 years. Assumptions, parameters, and calculations used in the application of the BIOSCREEN model are included in SECOR’s October 6, 2006 *No Further Action Analysis and Human Health Risk Assessment* dated October 6, 2006 (SECOR, 2006d).

11.0 RATIONALE FOR SITE CLOSURE

SECOR formally requests that this site be granted closure based on the following rationale:

- Operations at the site no longer pose a risk of impacting soil and groundwater beneath the site. The site was an active gasoline service station that was decommissioned in May 2000. Currently, the site is a paved parking lot within the Target department store complex, and contains a vacant building. Future plans for the site include the redevelopment of the Target department store into a Wal-Mart retail facility, the possible destruction of the former Kragen Auto Parts store building, and the building of an In-N-Out Burger restaurant. These future commercial establishments are not likely to adversely impact soil and groundwater quality beneath the site.
- The source of petroleum hydrocarbons and fuel oxygenates has been removed from beneath the site.
- Historical excavation of soil in the area of the former USTs and former product lines, and operation of the portable DPE system, resulted in the removal of the majority of contaminant mass beneath the site. Low levels of residual petroleum hydrocarbon and MtBE mass remain in soil and groundwater beneath the site, and will naturally attenuate over time.
- The lateral and vertical extent of petroleum hydrocarbons, MtBE, and TBA impacts in soil have been delineated.
- The dissolved petroleum hydrocarbon and MtBE plumes are stable and have also been delineated. Residual petroleum hydrocarbon and MtBE impacts continue to be detected in wells MW-3, MW-5, and RW-1, located in the immediate vicinity and west-southwest of the former UST area. TPHg and MtBE concentrations have generally declined and are expected to continue to decline in these wells over time.
- Results of the sensitive receptor survey indicated that existing receptors and other water supply wells that were not recently verified in the field are not likely to be impacted by the dissolved plumes beneath the site and site vicinity.
- Use of the groundwater beneath the site for municipal or domestic purposes is not anticipated.
- Results of a human health risk assessment indicate that residual petroleum hydrocarbons, MtBE, and TBA in soil, groundwater, and soil vapor beneath the site and site vicinity do not pose an unacceptable risk to human health or the environment.
- MtBE fate transport modeling using the BIOSCREEN method suggests that the dissolved MtBE plume will remain contained within the boundaries of the monitoring well network over a 200-year period. Assuming the occurrence of natural biodegradation processes beneath the site and site vicinity over the same time period, the dissolved

MtBE containing concentrations exceeding the secondary MCL (5 µg/L) will likely be limited to a distance not more than 45 feet from the current leading edge of the plume.

To assist the ACEHS in its review of the site for closure, SECOR has included a completed Case Closure Summary, included as Appendix I.

12.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the above information, SECOR recommends that no further action be required at the site, and that the site be reviewed for case closure. SECOR also recommends the shut-down of the portable DPE system at the site. Because well MW-10 is located in the vicinity of the planned construction of the In-N-Out Burger restaurant, which is scheduled in the near future, SECOR requests agency approval for the prompt destruction of this well.

Because the historical source of petroleum hydrocarbon impacts of subsurface soil and groundwater has been removed, and future site usages will not likely further impact soil and groundwater beneath the site, there is no need for ongoing monitoring following site closure. Upon the issuance of a NFAR letter by the ACEHS, the other groundwater monitoring and remediation wells will be destroyed, and the portable DPE system will be removed from the site.

13.0 LIST OF TECHNICAL REPORTS

- Gettler-Ryan, Incorporated. 2000. Underground Storage Tank and Product Piping Removal Report for Former Tosco 76 Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. September 8.
- Gettler-Ryan, Incorporated. 2001a. Limited Phase I Environmental Site Assessment at Former Tosco (76) Service Station #7004, 15599 Hesperian Boulevard, San Leandro, California. June 8.
- Gettler-Ryan, Incorporated. 2001b. Transmittal of Well Survey Results, Site Information Summary, and Request For Closure for the Tosco (76) Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. September 27.
- Gettler-Ryan, Incorporated. 2002. Subsurface Investigation Report for Former Tosco (76) Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. November 26.
- Kaprealian Engineering, Incorporated. 1990. Soil Sampling Report, Unocal Service Station #7004, 15599 Hesperian Boulevard, San Leandro, California, November 26.
- Kaprealian Engineering, Incorporated. 1991a. Preliminary Groundwater Investigation at Unocal Service Station #7004, 15599 Hesperian Boulevard, San Leandro, California, May 31.
- Kaprealian Engineering Incorporated. 1991b. Continuing Groundwater Investigation at Unocal Service Station #7004, 15599 Hesperian Boulevard, San Leandro, California. August 16.
- Kaprealian Engineering Incorporated. 1992a. Continuing Groundwater Investigation and Quarterly Report, Unocal Service Station #7004, 15599 Hesperian Boulevard, San Leandro, California. May 29.
- Kaprealian Engineering Incorporated. 1992b. Aquifer Pumping Test Report at Unocal Service Station #7004, 15599 Hesperian Boulevard, San Leandro, California. November 16.
- Pacific Environmental Group. 1996. Well Survey Results, Unocal Service Station 7004, 15599 Hesperian Boulevard, San Leandro, California. June 24.
- SECOR International Incorporated. 2002. Dual-Phase Extraction Summary Report. Former Tosco Station #7004, 15599 Hesperian Boulevard, San Leandro, California. January 3.
- SECOR International Incorporated. 2005a. Addendum to October 14, 2004 Work Plan for Additional Off-Site Monitoring Well Installation, Former 76 Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. May 12.
- SECOR International Incorporated. 2005b. Site Assessment Report for Former 76 Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. October 5.

SECOR International Incorporated. 2006a. Additional Site Assessment Report for Former 76 Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. April 3.

SECOR International Incorporated. 2006b. Initial Start-up Report, Former ConocoPhillips Site No. 7004, 15599 Hesperian Boulevard, San Leandro, California. April 17.

SECOR International Incorporated. 2006c. Work Plan For Offsite Assessment. Former 76 Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. June 30.

SECOR International Incorporated. 2006d. No Further Action Analysis and Human Health Risk Assessment. Former 76 Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. October 5.

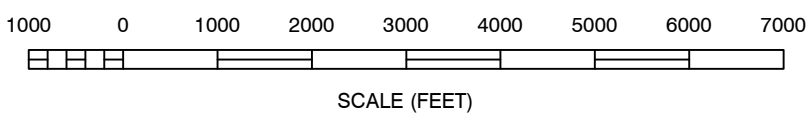
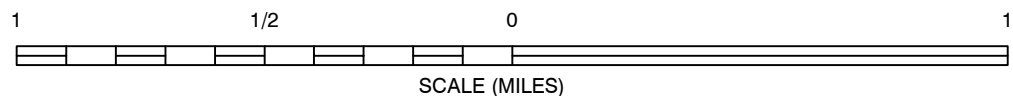
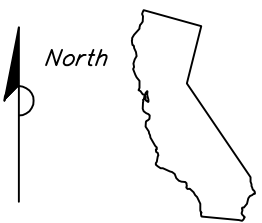
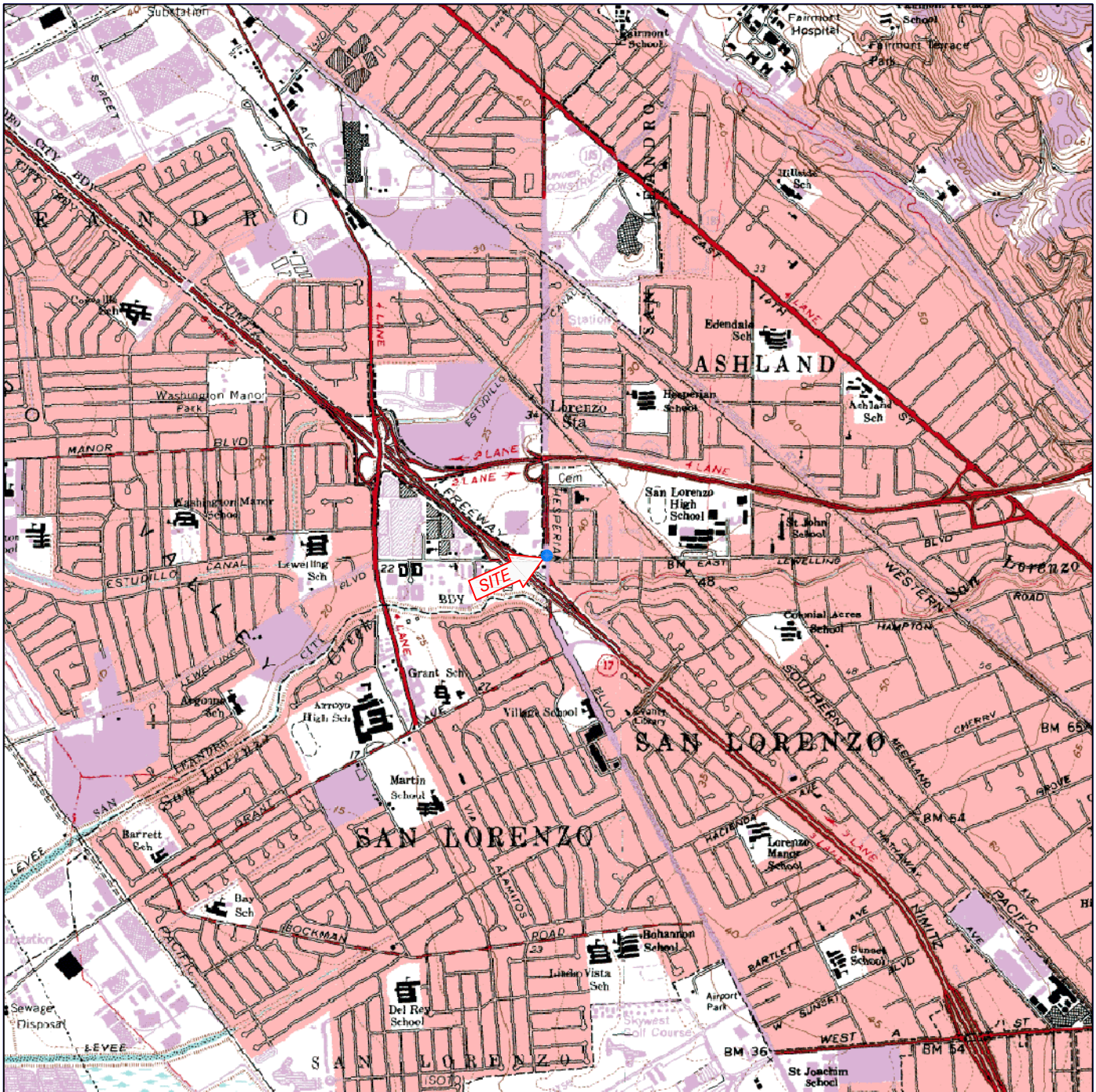
SECOR International Incorporated. 2006f. Addendum to Quarterly Status and Remediation Summary Report – Second Quarter 2006. Former 76 Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. November 6.

SECOR International, Incorporated. 2006f. Quarterly Monitoring and Remediation Summary Report – Third Quarter 2006, Former 76 Service Station No. 7004, 15599 Hesperian Boulevard, San Leandro, California. November 6.


14.0 LIMITATIONS

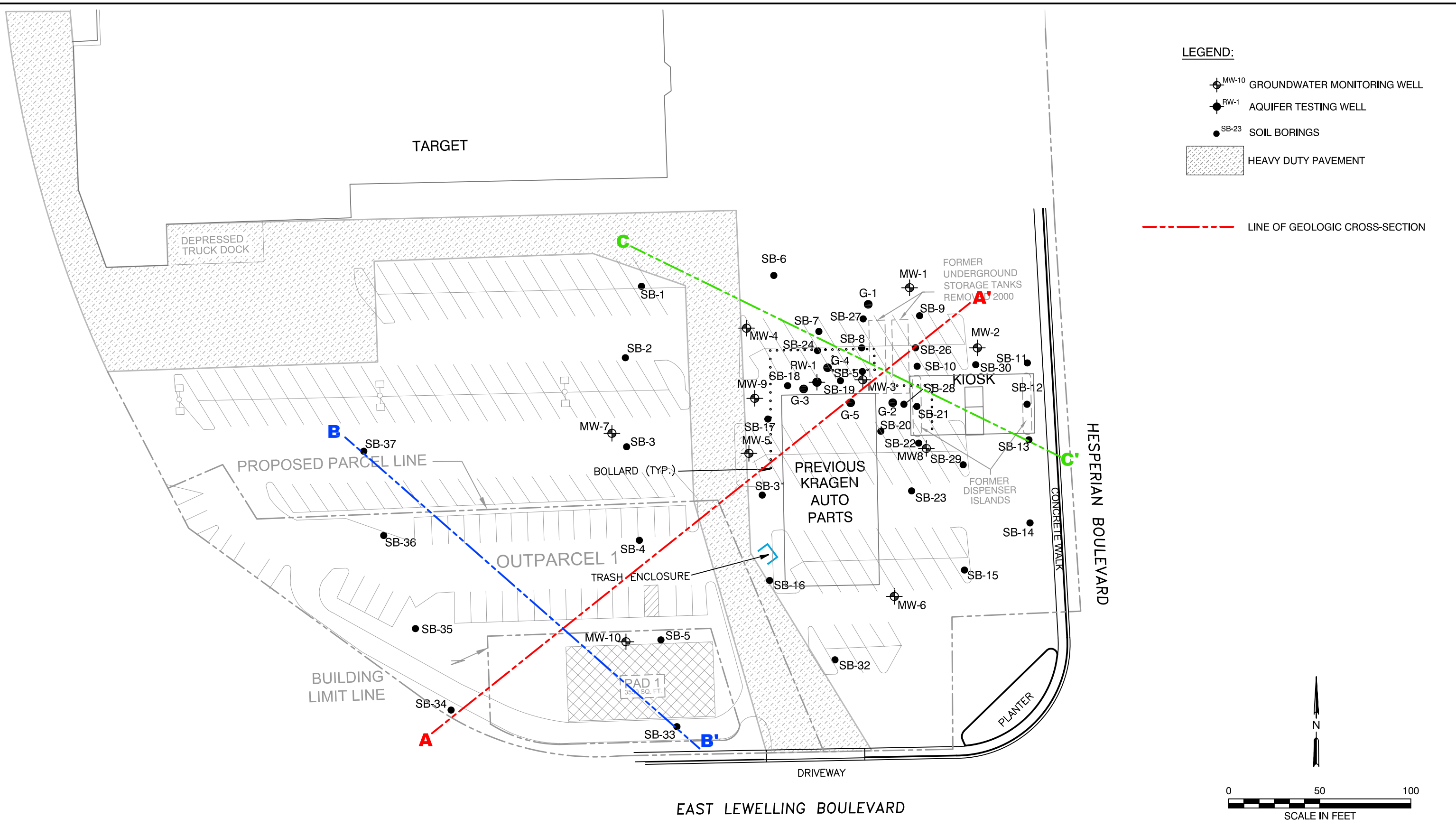
This report has been prepared for the exclusive use of ConocoPhillips and its representatives as it pertains to the property located at 15599 Hesperian Boulevard, San Leandro, California. The geology was reviewed by Diane M. Barclay, C.H.G., and the mass calculations and engineering were reviewed by Adrian Pérez, P.E. The evaluation of subsurface conditions is inherently limited due to the number of points of investigation. There are no representations, warranties, or guarantees that the results are representative of the entire site. Data from this report reflects the conditions at locations at a specified time. SECOR assumes no responsibility for work reported or performed by other consultants or contractors. No other interpretation, representations, warranties, guarantees, express or implied, are included or intended in the report findings.

FIGURES

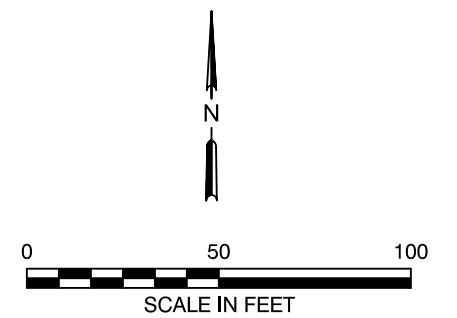


REFERENCE: USGS 7.5 MINUTE QUADRANGLE, SAN LEANDRO, CALIFORNIA

 SECOR 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)	FOR: CONOCOPHILLIPS FORMER 76 SERVICE STATION NO. 7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA		FIGURE: <h1>1</h1>	
	JOB NUMBER: 77CP.67004.00	DRAWN BY: DWR	CHECKED BY: ST	APPROVED BY: TP



- LEGEND:**
- GROUNDWATER MONITORING WELL
 - AQUIFER TESTING WELL
 - SOIL BORINGS
 - HEAVY DUTY PAVEMENT
 - LINE OF GEOLOGIC CROSS-SECTION



REFERENCE: PRELIMINARY SITE PLAN EXHIBIT "A"
 PREPARED FOR WAL-MART STORES,
 PROVIDED BY MR. BOB CLARK-RIDDELL.

SECOR
 3017 KILGORE ROAD, SUITE 100
 RANCHO CORDOVA, CALIFORNIA
 PHONE: (916) 861-0400/861-0430 (FAX)

FOR:
 FORMER 76
 SERVICE STATION NO. 7004
 15599 HESPERIAN BOULEVARD
 SAN LEANDRO, CALIFORNIA

JOB NUMBER:
 77CP.01631.00

DRAWN BY:
 MDR

SITE PLAN

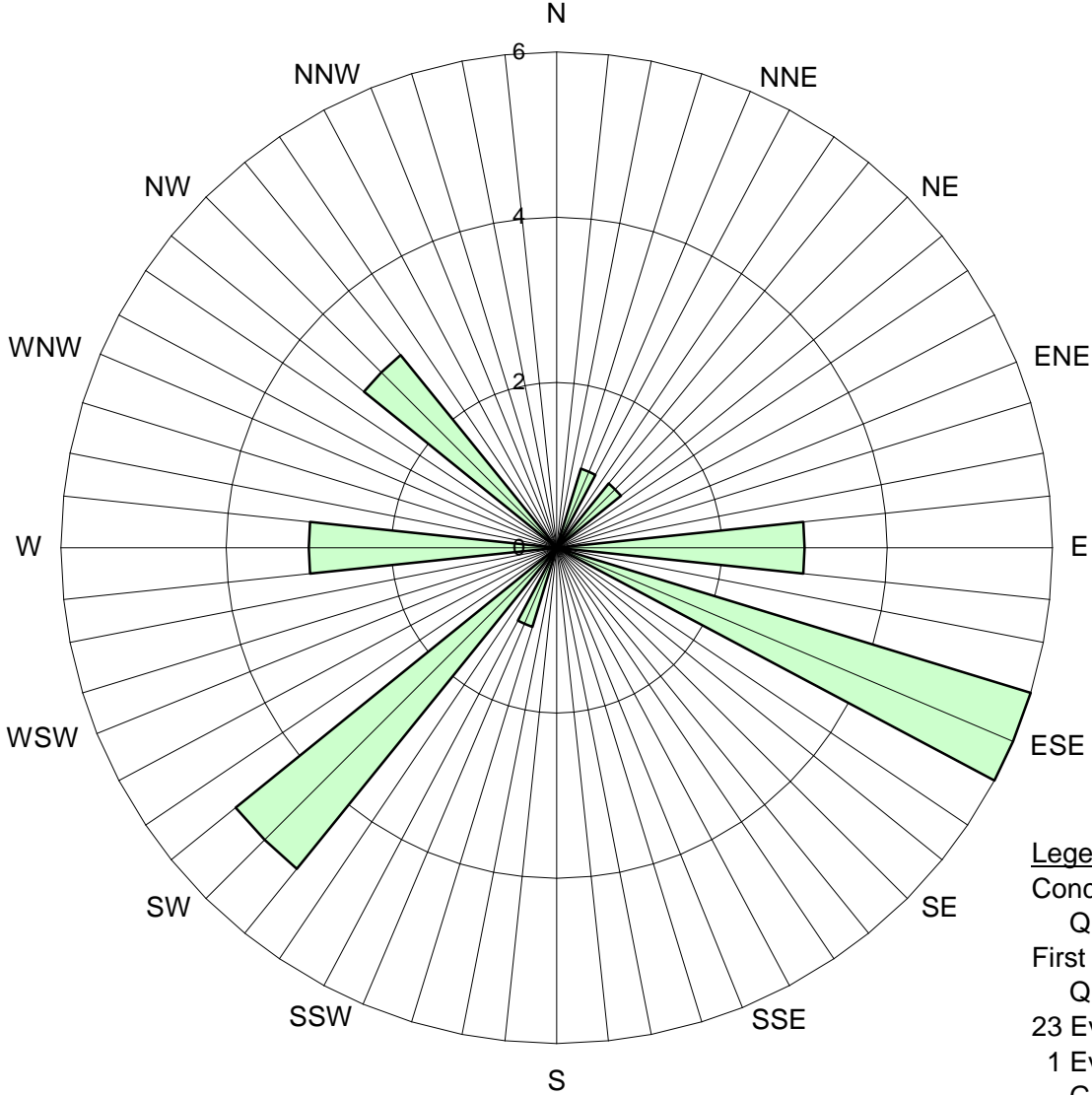
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FIGURE:
2

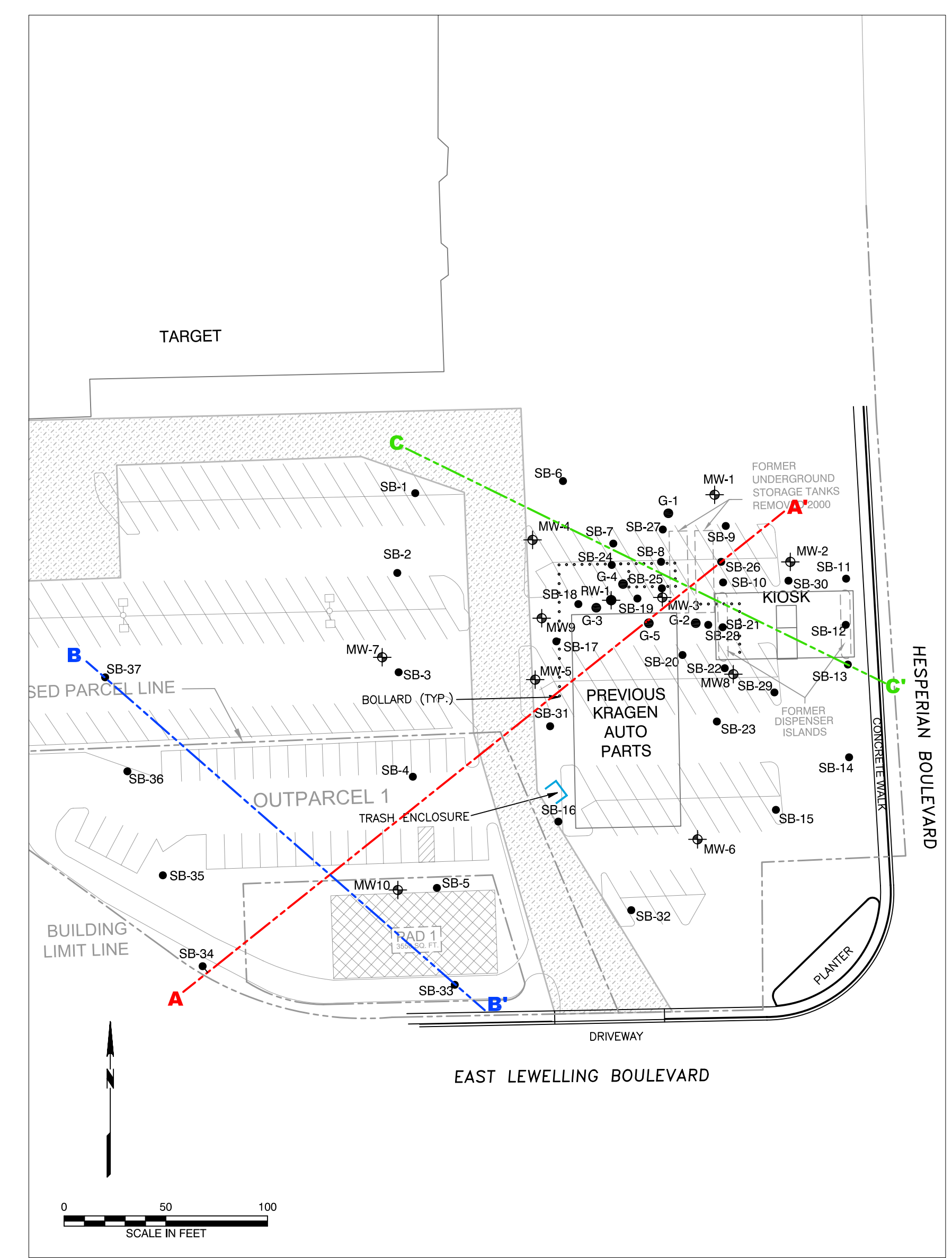
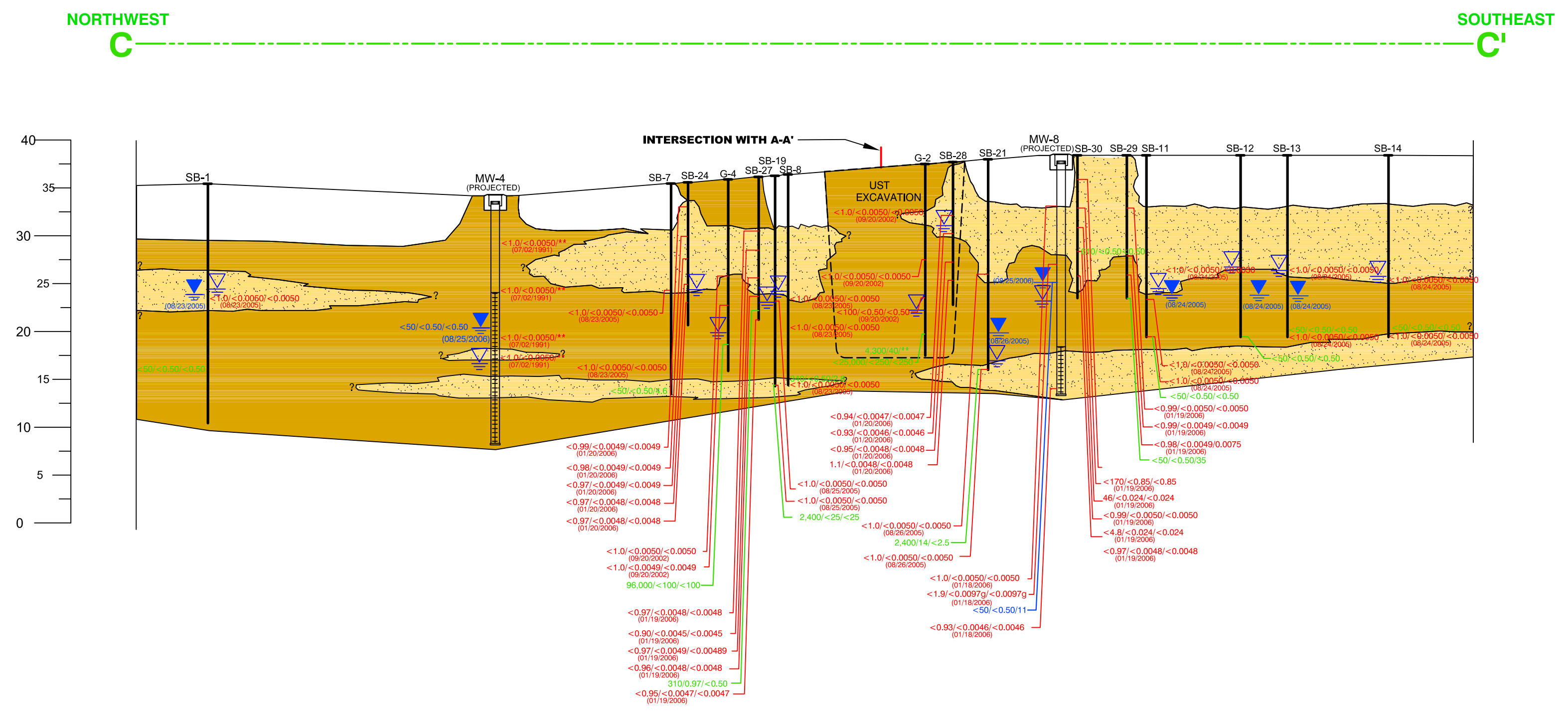
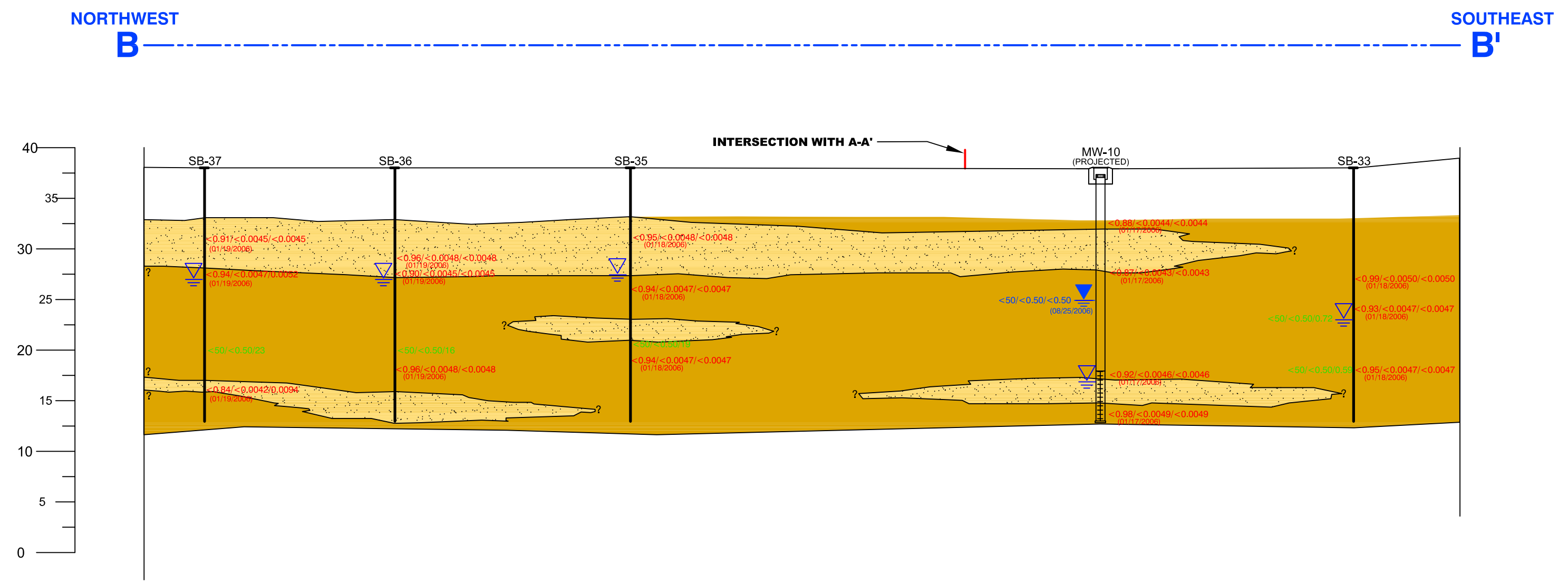
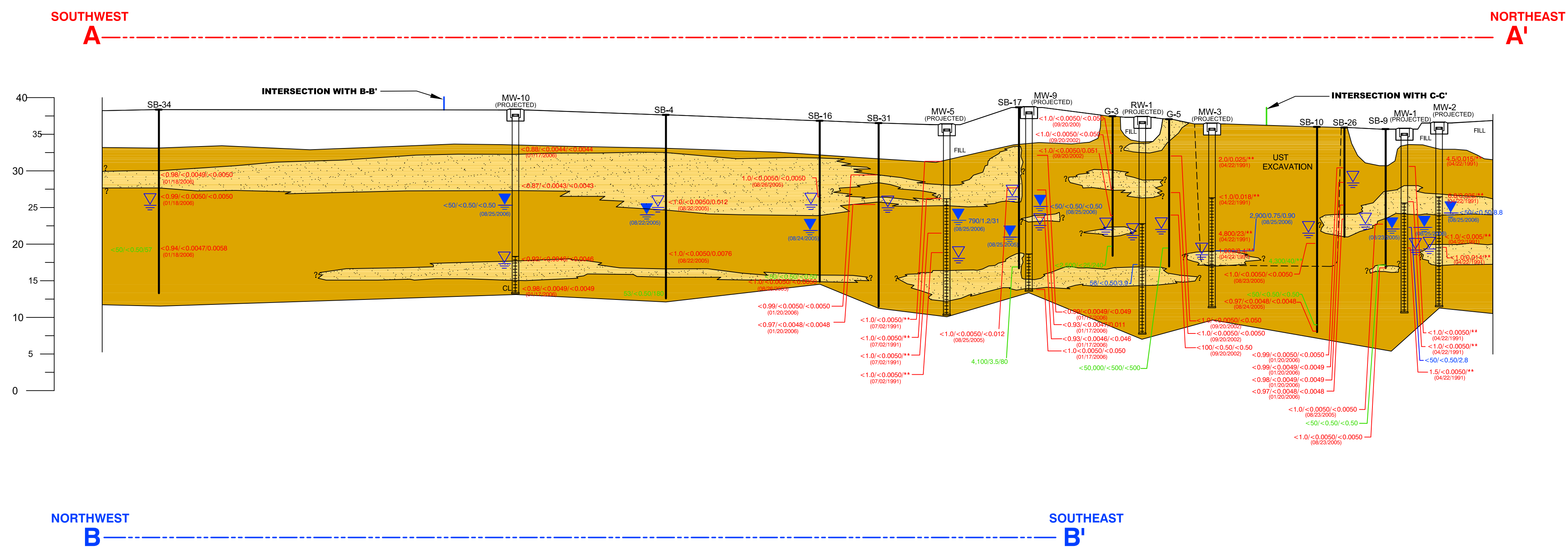
DATE:
 06/29/06

Figure 3
Groundwater Flow Direction Rose Diagram
 Former 76 Service Station No. 7004
 15599 Hesperian Boulevard
 San Leandro, California



Legend
 Concentric Circles represent
 Quarterly Monitoring Events
 First Quarter 1999 through Third
 Quarter 2006
 23 Events Shown
 1 Event Had A Radially Inward
 Gradient

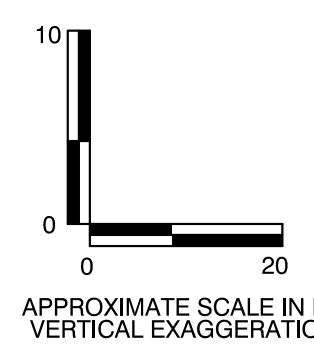
Groundwater Flow Direction



CROSS-SECTION LOCATION MAP

LEGEND:

- INTERPRETED SOIL STRATIGRAPHIC BOUNDARY
- WELL CASING
- SCREENED INTERVAL FOR MONITORING WELLS
- FIRST ENCOUNTERED GROUNDWATER
- STABILIZED GROUNDWATER (DATE)
- SOIL BORING
- CLAY AND SILT (CL, ML)
- CLAYEY SAND TO SAND WITH SOME GRAVEL (SC/SM/SW/SF)
- AIR CLEARED INTERVAL
- mg/kg MILLIGRAMS PER KILOGRAM
- TPHg TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- MTBE METHYL TERT-BUTYL ETHER
- NA NOT ANALYZED
- <10/<1.0/<0.005 SOIL SAMPLE (TPHg/BENZENE/MTBE) (** NO MTBE DATA)
- <10/<1.0/<0.005 WATER SAMPLE (TPHg/BENZENE/MTBE)
- <10/<1.0/<0.005 GRAB GROUNDWATER SAMPLE (TPHg/BENZENE/MTBE)



SECOR
3017 KILGORE ROAD, SUITE 100
RANCHO CORDOVA, CALIFORNIA
PHONE: (916) 861-0400/861-0430 (FAX)

FOR:
FORMER 76
SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

JOB NUMBER:
77CP.01631.11

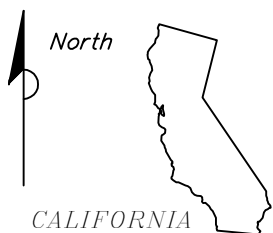
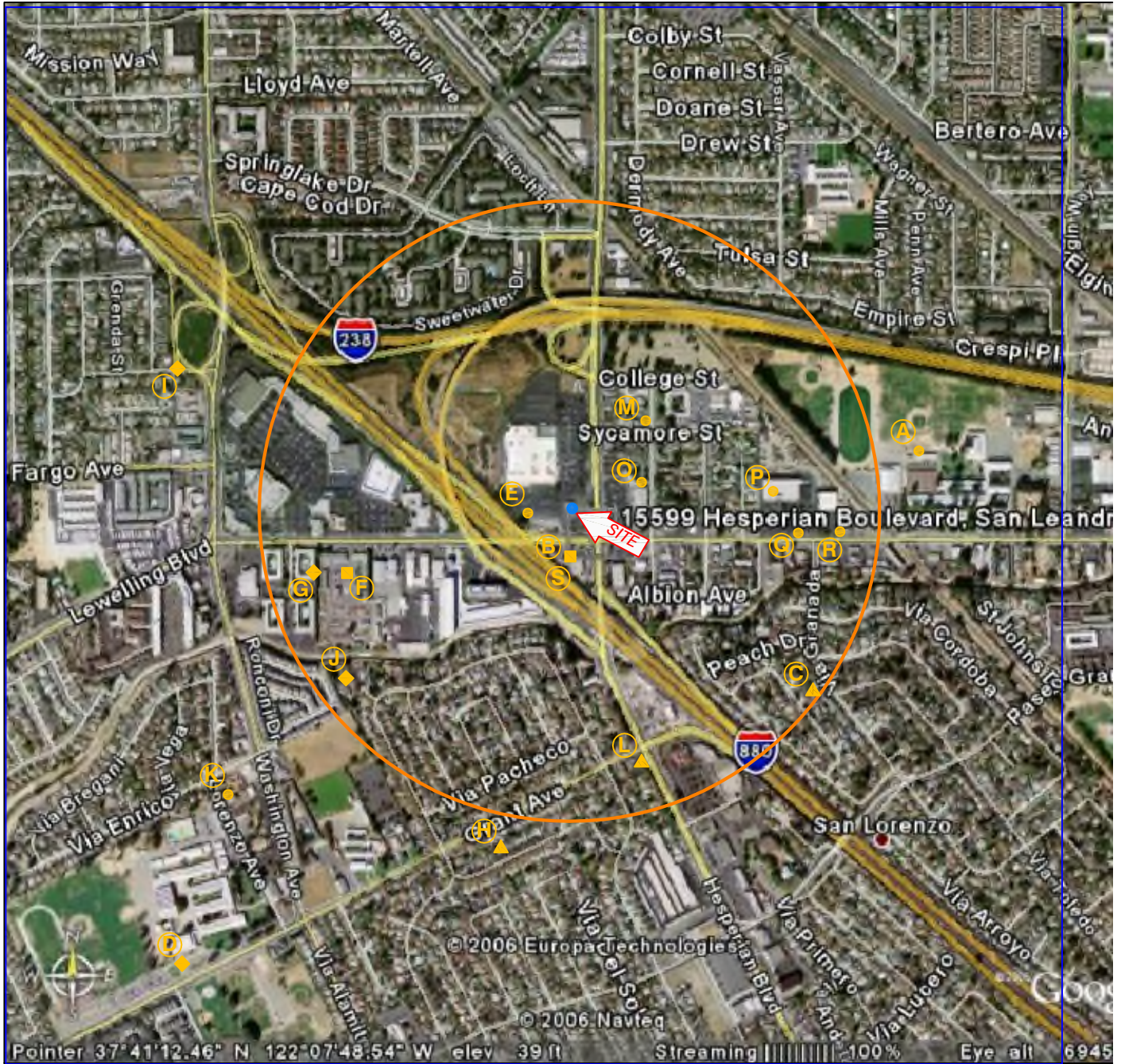
DRAWN BY:
MDR

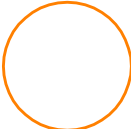
CHECKED BY:
MB

APPROVED BY:
DMB

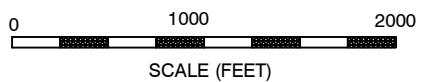
DATE:
10/17/06

FIGURE:
4







 = 2000 FOOT RADIUS


NOTE: LOCATION FOR (S) AND (B) INDICATES THREE ABANDONED WELLS. WELLS M, N, AND T NOT INCLUDED, NOT CONFIRMED.



LEGEND:

-  = IRRIGATION WELL
-  = DOMESTIC/IRRIGATION WELL
-  = DOMESTIC WELL
-  = OTHER WELL USAGE (UNKNOWN)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, SAN LEANDRO, CALIFORNIA

 SECOR 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)	FOR: FORMER 76 SERVICE STATION NO. 7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA	WATER SUPPLY WELL SURVEY MAP		FIGURE: 5
	JOB NUMBER: 77CP.01361.11	DRAWN BY: MDR	CHECKED BY: KF	APPROVED BY: DB

TABLES

**Table 1
Soil Boring and Well Construction Details**

Former 76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

Well I.D.	Drill Date	Boring Depth (feet bgs)	Well		Screen		Screen Length (feet)	Interval of Cement Grout (feet bgs)	Interval of Bentonite Seal (feet bgs)	Interval of Sand Pack (feet bgs)	Comments
			Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)					
Groundwater Monitoring Wells											
MW-1	04/22/91	25	25	2	10	25	15	0-6	6-8	8-25	Installed by Kaprealian
MW-2	04/22/91	25	25	2	10	25	15	0-6	6-8	8-25	Installed by Kaprealian
MW-3	04/22/91	25	25	2	10	25	15	0-6	6-8	8-25	Installed by Kaprealian
MW-4	07/02/91	26	26	2	10	26	16	0-6	6-8	18-26	Installed by Kaprealian
MW-5	07/02/91	26	26	2	10	26	16	0-6	6-8	18-26	Installed by Kaprealian
MW-6	07/02/91	26	26	2	10	26	16	0-6	6-8	18-26	Installed by Kaprealian
MW-7	01/17/06	25	25	2	20	25	5	0-15	15-18	18-25	Installed by SECOR
MW-8	01/18/06	25	25	2	20	25	5	0-15	15-18	18-25	Installed by SECOR
MW-9	01/17/06	25	25	2	20	25	5	0-15	15-18	18-25	Installed by SECOR
MW-10	01/17/06	25	25	2	20	25	5	0-15	15-18	18-25	Installed by SECOR
RW-1	04/15/92	29.5	27.5	6	12.5	27.5	15	0-8.5	8.5-10.5	10.5-27.5	Installed by Kaprealian
Soil Borings											
G-1	09/20/02	20	---	---	---	---	---	0-20	---	---	Drilled by Gettler-Ryan, Incorporated
G-2	09/20/02	20	---	---	---	---	---	0-20	---	---	Drilled by Gettler-Ryan, Incorporated
G-3	09/20/02	20	---	---	---	---	---	0-20	---	---	Drilled by Gettler-Ryan, Incorporated
G-4	09/20/02	20	---	---	---	---	---	0-20	---	---	Drilled by Gettler-Ryan, Incorporated
G-5	09/20/02	20	---	---	---	---	---	0-20	---	---	Drilled by Gettler-Ryan, Incorporated
SB-1	08/23/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-2	08/26/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-3	08/22/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-4	08/22/05	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
SB-5	08/22/05	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
SB-6	08/23/05	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
SB-7	08/23/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-8	08/23/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-9	08/23/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-10	08/23-24/05	28	---	---	---	---	---	0-28	---	---	Drilled by SECOR
SB-11	08/24/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-12	08/24/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-13	08/24/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-14	08/24/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-15	08/24/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-16	08/24/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-17	08/25/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-18	08/25/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-19	08/25/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-20	08/25/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR

**Table 1
Soil Boring and Well Construction Details**

Former 76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

Well I.D.	Drill Date	Boring Depth (feet bgs)	Well		Screen		Screen Length (feet)	Interval of Cement Grout (feet bgs)	Interval of Bentonite Seal (feet bgs)	Interval of Sand Pack (feet bgs)	Comments
			Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)					
Soil Borings (cont.)											
SB-21	08/26/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-22	08/26/05	19	---	---	---	---	---	0-19	---	---	Drilled by SECOR
SB-23	08/26/05	22	---	---	---	---	---	0-22	---	---	Drilled by SECOR
SB-24	01/20/06	15	---	---	---	---	---	0-15	---	---	Drilled by SECOR
SB-25	01/20/06	15	---	---	---	---	---	0-15	---	---	Drilled by SECOR
SB-26	01/20/06	15	---	---	---	---	---	0-15	---	---	Drilled by SECOR
SB-27	01/19/06	15	---	---	---	---	---	0-15	---	---	Drilled by SECOR
SB-28	01/20/06	15	---	---	---	---	---	0-15	---	---	Drilled by SECOR
SB-29	01/19/06	15	---	---	---	---	---	0-15	---	---	Drilled by SECOR
SB-30	01/19/06	15	---	---	---	---	---	0-15	---	---	Drilled by SECOR
SB-31	01/20/06	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
SB-32	01/19/06	15	---	---	---	---	---	0-15	---	---	Drilled by SECOR
SB-33	01/18/06	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
SB-34	01/18/06	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
SB-35	01/18/06	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
SB-36	01/19/06	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
SB-37	01/19/06	25	---	---	---	---	---	0-25	---	---	Drilled by SECOR
<u>Explanation:</u> All wells are of PVC construction bgs = Below Ground Surface											

Table 2
Water Supply Wells Within 2,000 Feet

Former 76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

Well ID No.	Well Identification/Approximate Well Location	Year Installed	Use	Total Depth (feet)	Casing Diameter (inches)	Screen Interval (feet bgs)	Pump Rate (gpm)	Approximate Distance/Direction From Site	Sanitary Seal Depth (feet bgs)	Well Log? (Y/N)	Located in the field? (Y/N)	Notes
A	San Lorenzo High School	1951	Irrigation Domestic Irrigation	616	30 (Surface to 80' bgs)/14 (80' to total depth) - 1951 Well; 6 (1991 Domestic Well); 11 (1991 Irrigation Well)	142-154, 166-172, 178-190, 196-202, 208-214, 226-232, 244-250, 256-260, 280-286, 310-322, 328-334, 340-346, 400-412, 478-503, 521-539, 551-600 (1951 Well); N/A (1991 Domestic Well); N/A (1991 Irrigation Well)	850 8 N/A	2,300 ENE	Seal present; depth not on log (1951 Well). N/A (1991 Wells)	Y (1951 Well) / N (1991 Wells)	Y N N	Three wells identified at this location. DWR log obtained by SECOR for well installed in 1951. 1991 domestic well identified by GR. 1991 irrigation well identified through ACPWD. 1991 well logs not on file at DWR. According to Ms. Karen Langmaid, Director of Operations for San Lorenzo Unified School District, the only well currently on-site is the 616-foot irrigation well, which was identified by SECOR personnel on-site.
	1991	194		610								
B	Ratti (Residence)	1949	Abandoned Domestic Well	410*	N/A	N/A	N/A	250 SW	N/A	See notes	N	Well information not in DWR files. Property is commercially developed. ACPWD documents the well as abandoned.
	2nd House on W Corner of Lewelling and Hesperian Blvd.											
C	Residence	1951	Domestic/Irrigation	70	6	50-70	N/A	1,800 SE	N	Y	Y	Resident indicated that the well is currently not used. Well information obtained from DWR
	15881 Via Granada											
D	Arroyo High School	1955	N/A	600*	N/A	N/A	N/A	3,900 SW	N/A	See notes	Found evidence of a possible well, but not confirmed.	Test hole log available; well information not found in DWR or ACPWD files.
	Grant Street											
E	CalTrans	N/A	Irrigation	N/A	N/A	N/A	N/A	3000 W	N/A	N	Y	Well log not present in DWR or ACPWD files. Well located during field reconnaissance.
	Near Intersection of Lewelling Blvd. and northbound Highway 880 transition to 238E.											
F	F. Goyette Machine Work	1937	Domestic	75	8	32-35, 52-60, 61-71	N/A	1,500 SW	N/A	Y	N	Log obtained through DWR. Usage information obtained from ACPWD. Property redeveloped with apartments.
	624 Lewelling Blvd.											
G	Residence	1949	N/A	69	N/A	N/A	N/A	1,750 SW	N/A	Y	N	Log obtained through DWR. Property redeveloped with apartments.
	647 Lewelling Blvd.											
H	Paul Frink (Residence)	1977	Domestic / Irrigation	31	N/A	N/A	N/A	2,200 SSW	N/A	N	Y	Well information obtained from PEG well survey and ACPWD files. Log not on file at DWR. Owner of well verified that the well is not in use due to a broken pump.
	754 Grant Ave.											
I	San Lorenzo Nursery	1947	N/A	720	12, 28 to 150'	660-720	N/A	2,700 NW	N/A	Y	N	Well information obtained from PEG. No evidence of a well at the location, which is now developed into a commercial business park. Location determined to be outside of 2,000-foot radius. 1947 well log obtained from DWR. No well information was obtained from the ACPWD.
	10500 Washington Ave. (N of intersection of Lewelling Blvd. and Washington Ave.)	1957	Industrial	524	N/A	N/A	N/A					

Table 2
Water Supply Wells Within 2,000 Feet

Former 76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

Well ID No.	Well Identification/Approximate Well Location	Year Installed	Use	Total Depth (feet)	Casing Diameter (inches)	Screen Interval (feet bgs)	Pump Rate (gpm)	Approximate Distance/Direction From Site	Sanitary Seal Depth (feet bgs)	Well Log? (Y/N)	Located in the field? (Y/N)	Notes
J	A.L. Christensen	1940	N/A	370	12	275-279, 318-323, 326-330, 348-358	N/A	1,800 SW	N/A	Y	N	Well information obtained from PEG. Detailed location of the well not on log. Location of well on PEG map did not correspond with the area.
	W of Cul-de-Sac of Via Punta											
K	Residence	1978	Irrigation	80	N/A	N/A	N/A	2,800 SW	N/A	See notes	Y	Well information obtained from PEG well survey. Log not on file at DWR or ACPWD. Status of well not confirmed.
	15600 Lorenzo Ave.											
L	Greenwood Corporation (Now Hall Orthodontics)	1931	Domestic	511	12	N/A	230	1,750 SSE	N/A	N	N	Well information obtained by GR. Well originally located by ACPWD. Log not available at DWR. Interviews with on-site personnel who have been at the location for many years have no knowledge of the well.
	15803 Hesperian Blvd.											
M [#]	Stenezel	1935	Irrigation	275	10	N/A	N/A	650-1,300 NNE	N/A	N	N	Well information obtained from ACPWD. Log not available at DWR. Specific address not provided on log; however, the area is residential.
	Sycamore St.											
N [#]	Twin Nursery	N/A	Irrigation Abandoned	N/A	N/A	8	N/A	N/A	N/A	N	N	Information obtained from ACPWD. Two wells identified at this site. Logs not on file at DWR. Nursery not identified in the field.
	Hesperian Blvd.	N/A										
O	Charles Gonsalves	N/A	Irrigation	25	N/A	N/A	N/A	600 NE	N/A	N	N	Information obtained from ACPWD. Log not on file at DWR. No well identified in the field; address is commercially developed.
	15559 Usher St.											
P	Frank Maciel	1955	Irrigation	27	4	N/A	N/A	1,350 E	N/A	N	N	Information obtained from ACPWD. Log not on file at DWR. Address is a private residence. Owner not available to confirm the existence of the well.
	15594 Sharon St.											
Q	Buehler	1946	Irrigation	65	8	N/A	N/A	1,500 E	N/A	N	N	Information obtained from ACPWD. Log not on file at DWR. No well identified in the field; property is commercially developed.
	177 Lewelling Blvd.											

Table 3
Temporary Dual Phase Extraction System - Soil Vapor Influent Analytical Data and Mass Recovery

Former 76 Station #7004
 15599 Hesperian Blvd
 San Leandro, California

Date Sampled	Sample ID	Notes	Hour Meter Reading (hours)	Well Field Flow Rate (scfm)	Influent Concentrations							TPHg Recovery			Benzene Recovery			MtBE Recovery		
					TPHg (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl-benzene (ppmv)	Total Xylenes (ppmv)	MtBE (ppmv)	VOC (ppmv)	Recovery Rate (lbs/day) [1]	Period Net Recovery (lbs) [2]	Cumulative Recovery (lbs) [3]	Recovery Rate (lbs/day) [1]	Period Net Recovery (lbs) [2]	Cumulative Recovery (lbs) [3]	Recovery Rate (lbs/day) [1]	Period Net Recovery (lbs) [2]	Cumulative Recovery (lbs) [3]
3/20/2006	INF		12076.5	12	15	<0.31	<0.26	<0.23	<0.23	0.40	16.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/10/2006	INF		12,345.4	13	<14	<0.31	<0.26	0.27	<0.23	0.67	15.74	0.07	0.79	0.79	0.00	0.00	0.00	0.00	0.03	0.03
6/5/2006	INF		12,557.7	11	24	<0.31	<0.26	<0.23	<0.23	0.93	25.24	0.10	0.92	1.71	0.00	0.00	0.00	0.00	0.03	0.06
6/22/2006	INF		12,725.8	11	5.1	<0.02	0.031	<0.02	<0.02	0.67	5.86	0.02	0.15	1.86	0.00	0.00	0.00	0.00	0.02	0.07
7/11/2006	INF		13,085.4	11	8.9	0.029	0.051	0.14	0.030	0.38	9.53	0.04	0.58	2.45	0.00	0.00	0.00	0.00	0.02	0.09
8/1/2006	INF		13,476.4	16	23.0	<0.31	<0.26	<0.23	<0.23	<0.14	23.45	0.14	2.26	4.70	0.00	0.00	0.00	0.00	0.01	0.11
9/5/2006	INF		14,247.5	14	11.0	<0.06	<0.05	<0.05	0.05	0.10	11.21	0.06	1.90	6.61	0.00	0.00	0.00	0.00	0.01	0.12

REPORTING PERIOD: Third Quarter																				
Period Pounds Removed [4]:												4.74			0.00			0.05		
Period Gallons Removed [5]:												0.78			0.00			0.01		
Total Pounds Removed [6]:												6.61			0.00			0.12		
Total Gallons Removed [7]:												1.08			0.00			0.02		

Definitions:
 lbs Pounds
 MtBE Methyl tert-butyl ether
 ppmv Parts per million by volume
 scfm Standard cubic feet per minute
 TPHg Total petroleum hydrocarbons as gasoline
 VOC Volatile organic compound

Notes:

Molecular Weights:
 TPHg 102 g/mol
 Benzene 78 g/mol
 MtBE 88 g/mol

Densities:
 Density of Gasoline= 6.1 lb/gal
 Density of Benzene= 7.4 lb/gal
 Density of MtBE= 6.18 lb/gal

Equations:

$$[1] \text{ Recovery Rate } \left(\frac{\text{lb}}{\text{day}} \right) = \frac{\text{Concentration (ppmv)} \cdot \text{Molecular Weight} \cdot \text{Flow} \left(\frac{\text{ft}^3}{\text{min}} \right) \cdot 60 \left(\frac{\text{min}}{\text{hour}} \right) \cdot 24 \left(\frac{\text{hour}}{\text{day}} \right)}{V_{\text{ideal}} \left(\text{ft}^3 \right) \cdot 10^6}$$

$$[2] \text{ Period Net Recovery (lbs)} = \frac{\text{Recovery Rate} \left(\frac{\text{lb}}{\text{day}} \right) \cdot (\text{Hour Meter Reading}_i - \text{Hour Meter Reading}_{i-1}) (\text{hour})}{24 \left(\frac{\text{hour}}{\text{day}} \right)}$$

[3] Cumulative Recovery (lbs) = \sum Period Net Recovery (lbs)

[4] Period Pounds Removed (lbs) = Reporting Period Net Recovery (lbs)

$$[5] \text{ Period Gallons Removed (gallons)} = \frac{\text{Period Pounds Removed (lbs)}}{\text{Density} \left(\frac{\text{lb}}{\text{gal}} \right)}$$

[6] Total Pounds Removed (lbs) = Cumulative Recovery (lbs)

$$[7] \text{ Total Gallons Removed (gallons)} = \frac{\text{Total Pounds Removed (lbs)}}{\text{Density} \left(\frac{\text{lb}}{\text{gal}} \right)}$$

V_{ideal} = Volume of 1.0 mole of an ideal gas is 386.6 ft³ at 70⁰F and 29.92 inHg

Table 4
Temporary Dual Phase Extraction System - Groundwater Mass Recovery

CP 7004
15599 Hesperian Blvd
San Leandro, California

Influent				Influent Concentrations				TPH _g Recovery			Benzene Recovery			MiBE Recovery			TBA Recovery					
Date Sampled	Sample ID	Notes	Hour Meter Reading (hours)	Totalizer Reading (gallons)	Period Volume Extracted (gallons)	TPH _g (µg/L)	Benzene (µg/L)	MiBE (µg/L)	TBA (µg/L)	Removal Rate (lbs/day) [1]	Period Net Removed (lbs) [2]	Cumulative Removed (lbs) [3]	Removal Rate (lbs/day) [1]	Period Net Removed (lbs) [2]	Cumulative Removed (lbs) [3]	Removal Rate (lbs/day) [1]	Period Net Removed (lbs) [2]	Cumulative Removed (lbs) [3]	Removal Rate (lbs/day) [1]	Period Net Removed (lbs) [2]	Cumulative Removed (lbs) [3]	
3/20/2006	KO		12076.5	43,900	--	260	<0.5	28	18	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.0000	0.000	0.000	0.000
4/10/2006	KO		12345.4	90,210	46,310	58	<0.50	13	14	0.005	0.061	0.061	0.000	0.000	0.000	0.0007	0.008	0.008	0.0006	0.006	0.006	0.006
6/5/2006	KO		12557.7	126,390	36,180	150	<0.50	36	10	0.005	0.045	0.107	0.000	0.000	0.000	0.0012	0.011	0.019	0.0003	0.003	0.009	0.009
7/11/2006	KO		13085.4	217,320	90,930	<50	<1.0	10	<25	0.001	0.019	0.126	0.000	0.000	0.000	0.0003	0.008	0.026	0.0004	0.009	0.019	0.019
8/1/2006	KO		13476.4	279,670	62,350	55	<0.5	7.0	<5	0.002	0.029	0.154	0.000	0.000	0.000	0.0002	0.004	0.030	0.0001	0.001	0.020	0.020
9/5/2006	KO		14247.5	415,990	136,320	<50	<0.5	3.1	<5	0.001	0.028	0.183	0.000	0.000	0.000	0.0001	0.004	0.034	0.0001	0.003	0.023	0.023
REPORTING PERIOD: Third Quarter																						
Period Pounds Removed [4]:											0.076		0.000		0.015		0.014					
Period Gallons Removed [5]:											0.012		0.000		0.002		0.002					
Total Pounds Removed [6]:											0.183		0.000		0.034		0.023					
Total Gallons Removed [7]:											0.030		0.000		0.005		0.003					
Definitions:																						
lbs Pounds																						
MiBE Methyl tert-butyl ether																						
NA Not sampled or not analyzed																						
TBA Tert-butyl alcohol																						
TPH _g Total petroleum hydrocarbons as gasoline																						
(µg/L) micrograms per Liter																						
KO Knockout																						
Notes:																						
Physical Properties:																						
Density of gasoline = 6.1 pounds per gallon																						
Density of diesel = 7.18 pounds per gallon																						
Density of motor oil = 7.62 pounds per gallon																						
Density of benzene = 7.4 pounds per gallon																						
Density of MiBE = 6.18 pounds per gallon																						
Density of TBA = 6.8 pounds per gallon																						
Equations:																						
[1] Removal Rate $\left(\frac{\text{lbs}}{\text{day}}\right) = \frac{\text{Period Net Removed (lbs)} \cdot 24 \left(\frac{\text{hour}}{\text{day}}\right)}{\text{Hour Meter Reading}_1 - \text{Hour Meter Reading}_0}$																						
[2] Period Net Removed (lbs) = (Concentration) $\left(\frac{\mu\text{g}}{\text{L}}\right) \cdot 3.785 \left(\frac{\text{L}}{\text{gallon}}\right) \cdot 2.205 \times 10^{-9} \left(\frac{\text{lbs}}{\mu\text{g}}\right) \cdot \text{Period Extracted (gallons)}$																						
[3] Cumulative Removed (lbs) = (Period Net Removed) (lbs) + Cumulative Removed (lbs)																						
[4] Period Pounds Removed (lbs) = \sum Period Net Removed (lbs)																						
[5] Period Gallons Removed (gallons) = $\frac{\text{Period Pounds Removed (lbs)}}{\text{Density of Constituent} \left(\frac{\text{lbs}}{\text{gallon}}\right)}$																						
[6] Total Pounds Removed (lbs) = Cumulative Adsorbed (lbs)																						
[7] Total Gallons Removed (gallons) = $\frac{\text{Total Pounds Removed (lbs)}}{\text{Density of Constituent} \left(\frac{\text{lbs}}{\text{gallon}}\right)}$																						
In order to show best estimate, recovery calculations assume one-half of the laboratory reporting limit when an analyte is reported as non-detect.																						

APPENDIX A
RWQCB-CVR GUIDELINES FOR NFAR REPORTING
AND SITE CLOSURE

No Further Action Required (NFAR) Report and Request for Site Closure

ConocoPhillips
76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

77CP.01631.11.1222

November 6, 2006

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION



APPENDIX A - REPORTS
TRI - REGIONAL BOARD STAFF
RECOMMENDATIONS
FOR PRELIMINARY INVESTIGATION AND
EVALUATION OF UNDERGROUND TANK SITES

16 April 2004

Prepared by Staff of the
Central Valley Regional Water Quality Control Board

*State of California
California Environmental Protection Agency*

**REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

*Robert Schneider, Chair
Karl Longley, Vice Chair
Beverly Alves, Member
Alson Brizard, Member
Christopher Cabaldon, Member
Cher Kablanow, Member
Robert Fong, Member
Lucille Palmer-Byrd, Member*

Thomas R. Pinkos, Executive Officer

11020 Sun Center Drive #200
Rancho Cordova, CA 95670

Phone: (916) 464-3291

DISCLAIMER

This publication is a technical report by staff of the California Central Valley Region. No policy or regulation is either expressed or intended. This publication does not constitute Regional Board endorsement or recommendation for, or against, the information, technology or products.

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APPENDIX A

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

STAFF RECOMMENDATIONS FOR REPORTING AT SITES CONTAMINATED BY UNDERGROUND STORAGE TANK RELEASES

1.0 INTRODUCTION

Appendix A to the *Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Storage Tank Sites* (Tri-Regional Recommendations) provides recommendations from Region 5 (Central Valley RWQCB) staff for reporting work for: site investigations, corrective actions, and no further action required documentation associated with leaking underground storage tank (UST) sites. Adherence to recommendations in Appendix A facilitates efficient regulatory review of investigations and cleanups at UST sites and assures compliance with UST Regulations found in CCR Title 23, Chapter 16.

Recommendations in Appendix A:

- Provide a format for consistency of documents;
- Reduce cost of reporting to dischargers and the UST Cleanup Fund by providing the dischargers and environmental consultants with information for developing complete workplans and reports.
- Complete the investigative phase in a timely, cost-effective and efficient manner; and
- Insure the appropriate remedial action is completed as quickly as possible.

1.1 Authority

The authority for Regional Board and Lead Agencies to direct UST investigations is found in the following:

- Porter-Cologne Water Quality Control Act (also known as the California Water Code Section 13000 ff.);
- The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region (Sacramento River Basin, San Joaquin River Basin and Tulare Lake Basin – current editions), which include beneficial use designations, water quality objectives and implementation plans (especially the *Policy for Investigation and Cleanup of Contaminated Sites*);
- State Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality Water in California;
- State Board Resolution No. 88-63, Sources of Drinking Water;
- State Board Resolution No. 92-49: Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304, as amended;

- Chapter 6.7 of the Health and Safety Code: Underground Storage of Hazardous Substances;
- Title 23, Division 3, Chapter 16 of the California Code of Regulations, Underground Storage Tank Regulations, Sections 2610 through 2729 - with current amendments. (Regulation sections as shown in the Underground Storage Tank Regulations, are designated; e.g. - §2652);
- Title 23, Division 3, Chapter 15 of the California Code of Regulations, Water Monitoring; and
- Department of Water Resources (DWR) Bulletin 74-81 and 74-90, California Well Standards for installing, maintaining, and destroying all wells and exploratory borings (boreholes).

1.2 Reference Documents

- Central Valley Regional Water Quality Control Board staff report, *A Compilation of Water Quality Goals*, available on the internet at:
http://www.swrcb.ca.gov/rwqcb5/available_documents/wq_goals.

These protocol and procedures are not new, but rather, documents that have been made available to responsible parties since the inception of the Central Valley Regional Board leaking UST program.

2.0 REPORTING RECOMMENDATIONS AND LEGAL REQUIREMENTS

General report recommendations are as follows:

1. By submitting a report or work plan to the Local Implementing Agency (LIA) and the Regional Board, the discharger acknowledges the statement of facts, conclusions, and recommendations included in the report or work plan. A cover letter, signed by the responsible party(s), should accompany all

reports and workplans expressing argument or disagreement with the contents.

2. Reports and workplans should have pagination and a table of contents listing the enclosed tables, figures, and appendices as applicable.
3. Time schedules should be included in all workplans and remedial action plans showing key steps to site investigation and cleanup.
4. Each report should be presented as a stand-alone document to assure that it may be reviewed independently, and must include conclusions and recommendations. It is not acceptable to reference a table, figure, or borehole log in another report.
5. Technical assistance for completing reports and workplans may be provided by environmental consultants in the private sector. Reports, documents, and plans that contain engineering, geology, and/or geophysical information must be prepared under the "responsible charge" of properly licensed (professional) individuals in the State of California (See Sections 6735, 7835, and 7835.1 of the California Business and Professions Code). This assures the regulatory agencies of a registered professionals responsibility for preparing accurate technical documents and protects the discharger's interests. The signature and professionals stamp (seal) of the licensed individual indicates responsibility for the technical information submitted. More than one signature may be required where more than one professional specialty is included in the technical document submitted.
6. All geologic logs (borehole and monitoring well logs) shall be prepared by a professional geologist or civil engineer (see #5 above) who is registered or certified by the State of California and who is experienced in the use of the Unified Soil Classification System. The geologic logs may also be prepared by a qualified technician trained and experienced in the use of the Unified Soil

Classification System working under the direct supervision of one of the aforementioned professionals, provided that the professional reviews the logs and assumes responsibility for the accuracy and completeness of the logs. (See Section 2649 of Title 23, Division 3, Chapter 16 of the California Code of Regulations).

7. All monitoring wells, extraction wells, etc and exploratory boreholes are to follow local ordinances and the guidance and requirements of the DWR Bulletin 74-81 and 74-90, California Well Standards. The text for Bulletin 74-81 and 74-90 may be downloaded and printed from the DWR website at dwr.water.ca.gov, and click on the "publications" button.
8. Printed or electronic reports are to be submitted to both Regional Board and LIA agencies.
9. As of September 2001, dischargers are also to submit analytical and site data electronically to the State Water Resources Control Board (SWRCB) at the same time as the hard copy reports. For more information, please log on to the SWRCB web site at: <http://geotracker.swrcb.ca.gov> and click on the information link to "AB 2886". (See Sections 2729 and 2729.1 of Title 23, Division 3, Chapter 16 of the California Code of Regulations).
10. As of January 2002, in addition to the laboratory data, site specific information is required to be submitted electronically for the following: 1) the latitude and longitude of groundwater monitoring wells (including any other well or permanent sampling point designated as part of the site monitoring program) accurate to within one meter; 2) the surveyed elevation, relative to mean sea level, for any groundwater sampled, accurate to within a tenth of a foot; 3) groundwater information, including depth to water, free product presence/thickness and well status; and 4) a site map in electronic format showing property boundaries, buildings, and soil and water sampling locations. (See Sections

2729 and 2729.1 of Title 23, Division 3, Chapter 16 of the California Code of Regulations).

3.0 INVESTIGATION PROCESS

After notification of the unauthorized release to the LIA agency, the lead agency is determined and the investigation and reporting process initially begins with a Site Investigation Workplan to collect soil or soil and groundwater samples for analysis of potential contaminants. All workplans and reports prepared for investigation and remedial actions are to be submitted to both the LIA and the Regional Board. The lead agency will review the workplan and send a letter to the discharger listing conditions of approval, or requesting additional information prior to approval of the proposed workplan.

Responsible parties seeking reimbursement funding from the UST Cleanup Fund will also need to submit all workplans with regulatory approval letters to the UST Cleanup Fund for review and pre-approval of costs.

Note: The lack of funding by the UST Cleanup Fund does not relieve responsible parties from their responsibility to perform work required by the Regional Board or a local enforcement agency pursuant to the Water Code or the Health & Safety Code. Amended time schedules may be considered to accommodate funding constraints.

3.1 Site Investigation Workplan - §2654, §2723

Once a release of petroleum hydrocarbon to soil has been detected, soil problems that cannot be resolved by a "scoop and run" cleanup may remain to be further identified and remediated. To successfully achieve site cleanup, subsequent site investigations must define (to the non-detect limits) the lateral and vertical extent of impacted soil and groundwater. An initial Site Investigation Workplan is used to develop preliminary information to direct subsequent work.

Upon approval of the workplan by the lead agency to define the extent of impacted soil and groundwater, the discharger or their consultant must obtain the necessary permits from the LIA, and then

implement the approved Site Investigation Workplan. If workplan revisions are necessary, the discharger may submit a letter addendum briefly detailing any proposed changes to the workplan or additional work.

The following background information is to be included in the initial Site Investigation Workplan:

- Name and address of the site, the discharger and contact person, if different.
- An appropriately scaled area map showing the site location relative to nearby landmarks such as rivers and other surface water features, highways, urban or industrial areas, etc.
- A scaled drawing of the site showing adjacent streets and buildings, all above ground structures including canopies and power lines, underground structures including fuel USTs, utility lines (water, sewer, electrical, natural gas, and communication lines), buried pipes, septic tanks, and leachfields. The map scale should be appropriate to show site features.
- Pertinent information that could influence the migration of contaminants from the site is to be included in the workplan including: topography, climate, local geology and subsurface soil conditions, local and regional hydrogeology, nearby surface waters.
- History of tank installation, type of products stored, operation, and repair.
- Layout of all former and existing USTs and piping systems on the property, with each tank labeled for content.
- History of leaks, spills and accidents at the site involving the tank system and dispensers.
- Tank testing results, dates, and inventory reconciliation methods.
- Summary of initial site information collected during UST removal including:

- Date of tank(s) removal and condition of the tank system;
- Table of soils and/or water analyses;
- Soil sampling and analytical procedures used;
- Stratigraphy identified from excavations or borings;
- Depth to groundwater, if encountered; and
- Description of any unusual site conditions encountered.

- Estimate of the quantity and composition of contaminant released into the environment and how the estimate was derived.
- Include initial abatement actions including a description of liquid or solid wastes removed and where they were disposed with copies of all manifests.

In addition to the background information requested for the Site Investigation Workplan listed above, the methods and procedures that will be used to investigate both impacted soil and groundwater should be included, and an estimated time schedule for completion of proposed work must also be included with the workplan.

Specific to the soil contamination, describe or identify the method, technique, and/or rationale for:

- Collecting soil, soil gas, and sediment samples, as appropriate.
- Determining the number of proposed boreholes, sampling locations, and sampling depths.
- Determining the extent of soil contamination from samples collected.
- Analyzing soil, soil gas, and sediment samples by appropriate federal EPA Methods or other non-proprietary, performance-based analytical procedures.
- Containing and disposing of investigation-derived waste.

- Completing a Quality Assurance/ Quality Control plan including chain-of-custody procedures for field sampling and analysis.

- Quality Assurance/ Quality Control plan including chain-of-custody procedures for field sampling and analysis.

Specific to the groundwater investigation, the workplan is to include the following:

3.2 Preliminary Investigation and Evaluation Report (PIER) - §2654, §2723

- A proposal to complete a sensitive receptor survey to show water supply wells and surface water bodies within 2,000 feet of the site. With field observation and verification of any wells within 500 feet of the leaking underground storage tank site and attempting to obtain depth of annular seal for those wells.
- A rationale for installing monitoring wells including well location, total depths, screen intervals, and annular seal depth.
- A construction diagram for any proposed monitoring wells including the well diameter, casing and screen type, annular sealing method and depth.
- The drilling method to be implemented and decontamination procedures used between borings.
- The method of well development, and the criteria for selecting the proposed method.
- Disposal plans for soil and purge water.
- Plans for completing a location survey of the installed monitoring wells.
- Free product measurement method.
- Water level measurement procedure.
- Well purging procedure.
- Sample collection procedures.
- Analytical methods to be used and appropriate detection limits. (Analytical laboratories are to report all peaks identified from the soil and groundwater testing, and provide chromatograms as necessary).

The soil and groundwater data collected from implementing the Site Investigation Workplan is to be presented in the PIER and used to create the Site Conceptual Model. Information developed for this report will be used to determine what additional work is needed at the site. The PIER is to contain:

- Summarized background information developed from the Site Investigation Workplan and results of the completed sensitive receptor survey.
- The area of investigation is to be accurately delineated on maps and cross sections to scale to depict the lateral and vertical extent of impacted soil and groundwater identified to date.
- Cross sections must include stratigraphy based upon boreholes, trenches, monitoring wells, or any other supporting information, and must show analytical results and construction details for all monitoring wells to demonstrate the degree of impact to groundwater and site soils.
- Tables summarizing analytical data and methodologies used to collect and analyze the samples.
- Depth to groundwater, and calculated groundwater elevation.
- Groundwater quality contoured on a site map for each groundwater unit investigated.
- A graphical and narrative site conceptual model (SCM) showing the extent of known soil contamination and groundwater degradation relative to the leaking UST system and potential receptors. The SCM should be updated as characterization data becomes available, and used to make determinations for future investigations.

Note: To satisfy Basin Plan requirements and Resolution No. 88-63, which states in part “all surface and ground waters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply...”see Table 1, for a list of Numerical Water Quality Limits for Petroleum Based Fuel components for protection of existing or potential sources of drinking water.

These Limits change from time-to-time. The current list of numerical limits may be found on the internet at http://www.swrcb.ca.gov/rwqcb5/available_documents/index.html#WaterQualityGoals.

- Appropriate conclusions, and recommendations for additional work, as necessary.

Monitoring well diagrams are to represent the completed well and show or describe the following:

- An accurate depiction of monitoring well construction.
- Types and quantities of materials placed in the borehole.
- Placement method of the annular seal materials, (e.g. pumped through a tremie pipe, or poured from the surface).
- Location of screen interval, transition seal, and sanitary seal details.
- Nominal inner diameter (ID) and outer diameter (OD) of the auger and casing.

- Copies of drillers and/or geologist logs for drilling and construction.
- Appropriate field notes from well development with descriptions of parameter stabilization (e.g. tables showing pH, electrical conductivity, temperature, turbidity, development method, and volume of groundwater purged from the well).
- Type of drilling rig equipment used for well construction, names of the driller and supervising field geologist, plus any difficulties encountered during drilling that could affect the future quality of data from the well.

Workplans and summary reports are to be prepared and submitted to the LIA and Regional Board until the lateral and vertical extent of contamination is defined. The proposed additional work may be submitted separately, or with the quarterly status reports.

Please note that site conditions may warrant interim cleanup and removal actions before the lateral and vertical extent of contamination is completely defined. For interim remedial actions, the discharger shall follow the requirements outlined in the UST Regulations, §2722(b).

Table 1: Water Quality Numerical Limits for Petroleum Fuel Mixtures, Constituents and Additives *

Constituent	Water Quality Objective (a)	Numerical Limit Interpreting Water Quality Objective		
		Source	Limit	Units
Aromatic Hydrocarbons:				
Benzene	Chemical Constituents	California Primary MCL (b)	1.0	ug/L
	Toxicity	California Public Health Goal (OEHHA)	0.15	ug/L
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	170	ug/L
n-Butylbenzene	Toxicity	California Drinking Water Action Level (DHS)	260	ug/L
sec-Butylbenzene	Toxicity	California Drinking Water Action Level (DHS)	260	ug/L
tert-Butylbenzene	Toxicity	California Drinking Water Action Level (DHS)	260	ug/L
Ethylbenzene	Chemical Constituents	California Primary MCL (b)	300	ug/L
	Toxicity	California Public Health Goal (OEHHA)	300	ug/L
	Tastes and Odors	Federal Register, Vol. 54, No. 97, pp. 22138,22139	29	ug/L
Isopropyl benzene	Toxicity	USEPA IRIS Reference Dose (i)	700	ug/L
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	0.8	ug/L
Toluene	Chemical Constituents	California Primary MCL (b)	150	ug/L
	Toxicity	California Public Health Goal (OEHHA)	150	ug/L
	Tastes and Odors	Federal Register, Vol. 54, No. 97, pp. 22138,22139	42	ug/L
1,2,4-Trimethylbenzene	Toxicity	California Public Health Goal (OEHHA)	330	ug/L
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	15	ug/L
1,3,5-Trimethylbenzene	Toxicity	California Public Health Goal (OEHHA)	330	ug/L
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	15	ug/L
Xylenes (sum of isomers)	Chemical Constituents	California Primary MCL (b)	1750	ug/L
	Toxicity	California Public Health Goal (OEHHA)	1800	ug/L
	Tastes and Odors	Federal Register, Vol. 54, No. 97, pp. 22138,22139	17	ug/L
Aliphatic Hydrocarbons:				
n-Hexane	Toxicity	USEPA Health Advisory (e)	400	ug/L
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	6.4	ug/L
Hydrocarbon Mixtures:				
Diesel or Kerosene	Toxicity	USEPA Superfund Provisional Reference Dose (i)	56-140	ug/L
	Tastes and Odors	Taste & odor threshold from USEPA Health Advisory	100	ug/L
Gasoline	Toxicity	USEPA Superfund Provisional Cancer Slope Factor (c)	21	ug/L
	Tastes and Odors	McKee & Wolf, <i>Water Quality Criteria</i> , SWRCB, p. 230	5	ug/L
Additives:				
Lead	Chemical Constituents	California Primary MCL (b)	15	ug/L
	Toxicity (h)	California Public Health Goal (OEHHA)	2	ug/L
Ethylene dibromide (EDB)	Chemical Constituents	California Primary MCL (b)	0.05	ug/L
	Toxicity	California Public Health Goal (OEHHA)	0.01	ug/L
Ethylene dichloride (1,2-Dichloroethane)	Chemical Constituents	California Primary MCL (b)	0.5	ug/L
	Toxicity	California Public Health Goal (OEHHA)	0.4	ug/L
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	7000	ug/L
Methyl t-butyl ether (MTBE)	Chemical Constituents	California Primary MCL (b)	13	ug/L
	Chemical Constituents	California Secondary MCL (f)	5	ug/L
	Toxicity	California Public Health Goal (OEHHA)	13	ug/L
	Tastes and Odors	California Secondary MCL	5	ug/L
Di-isopropyl ether (DIPE)	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	0.8	ug/L
t-Butyl alcohol (TBA)	Toxicity	California Drinking Water Action Level (DHS)	12	ug/L
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	290,000	ug/L
Ethanol	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	760,000	ug/L
Methanol	Toxicity	USEPA IRIS Reference Dose (i)	3500	ug/L
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	740,000	ug/L

Table 1: Water Quality Numerical Limits for Petroleum Fuel Mixtures, Constituents and Additives (Cont.) *

Constituent	Water Quality Objective (a)	Numerical Limit Interpreting Water Quality Objective			OEHHA PEF
		Source	Limit	Units	
Polynuclear Aromatic Hydrocarbons (PAHs or PNAs) and derivatives:					
Acenaphthene	Toxicity	USEPA IRIS Reference Dose (i)	420	ug/L	
	Tastes and Odors	USEPA National Ambient Water Quality Criteria	20	ug/L	
Anthracene	Toxicity	USEPA IRIS Reference Dose (i)	2100	ug/L	
Benzo(a)anthracene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
Benzo(a)pyrene	Chemical Constituents	California Primary MCL	0.2	ug/L	
	Toxicity	Public Health Goal	0.004	ug/L	1 (index)
Benzo(b)fluoranthene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
Benzo(j)fluoranthene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
Benzo(k)fluoranthene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
Chrysene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.4	ug/L	0.01
Dibenz(a,i)acridine	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
Dibenz(a,h)acridine	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
Dibenz(a,h)anthracene	Toxicity	Cal/EPA Cancer Potency Factor (c)	0.0085	ug/L	
7H-Dibenzo(c,g)carbazole	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.004	ug/L	1
Dibenzo(a,e)pyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.004	ug/L	1
Dibenzo(a,h)pyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.0004	ug/L	10
Dibenzo(a,l)pyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.0004	ug/L	10
Dibenzo(a,i)pyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.0004	ug/L	10
7,12-Dimethylbenz(a)anthracene	Toxicity	Cal/EPA Cancer Potency Factor (c)	0.00014	ug/L	
1,6-Dinitropyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.0004	ug/L	10
1,8-Dinitropyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.004	ug/L	1
Fluoranthene	Toxicity	USEPA IRIS Reference Dose (i)	280	ug/L	
Fluorene	Toxicity	USEPA IRIS Reference Dose (i)	280	ug/L	
Indeno(1,2,3-c,d)pyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
3-Methylcholanthrene	Toxicity	Cal/EPA Cancer Potency Factor (c)	0.0016	ug/L	
5-Methylchrysene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.004	ug/L	1
2-Methylnaphthalene	Toxicity	USEPA IRIS Reference Dose (i)	28	ug/L	
Naphthalene	Toxicity	California DHS Action Level in drinking water	170	ug/L	
	Tastes and Odors	Amoore and Hautala, <i>J. Applied Tox.</i> , Vol.3, No.6, 1983	21	ug/L	
5-Nitroacenaphthene	Toxicity	Cal/EPA Cancer Potency Factor (c)	0.27	ug/L	
6-Nitrocrysene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.0004	ug/L	10
2-Nitrofluorene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.4	ug/L	0.01
1-Nitropyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
4-Nitropyrene	Toxicity	Public Health Goal for benzo(a)pyrene & OEHHA PEFs	0.04	ug/L	0.1
Pyrene	Toxicity	USEPA IRIS Reference Dose (i)	210	ug/L	

Notes for Table 1:

- (a) Water Quality Objectives for groundwater from the *Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin*, Fourth Edition. Similar language is found in the Tulare Lake Basin Plan.

Chemical Constituents

Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.

At a minimum, ground waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain lead in excess of 0.015 mg/l. To protect all beneficial uses, the Regional Water Board may apply limits more stringent than MCLs.

Toxicity

Ground waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial use(s). This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.

Tastes and Odors

Ground waters shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

- (b) Primary MCLs are human health based, but also may reflect other factors relating to technologic and economic feasibility of attainment and monitoring in a water distribution system and at the tap. These factors may not be relevant for the water resource.
- (c) 1-in-a-million cancer risk estimate derived from published oral cancer slope factor by assuming 2 liters/day water consumption and 70 kg body weight.
- (d) If adopted as proposed, this limit would become the numerical limit used to interpret this objective.
- (e) Health advisory = 4000 ug/L for 10 day exposure or less. No lifetime exposure advisory has been developed. However, lifetime health advisories are normally at least ten-fold lower than 10-day advisories. Therefore, a level of 400 ug/L would be a reasonable estimate of a lifetime protective level.
- (f) Secondary MCLs are human welfare based, but also may reflect other factors relating to technologic and economic feasibility of attainment and monitoring in a water distribution system and at the tap. These factors may not be relevant for the water resource.
- (g) Value listed is for 1,3,5-trimethylbenzene. Taste and odor threshold should be similar for 1,2,4-trimethylbenzene.
- (h) Liability under Proposition 65 may also exist for responsible parties where levels in water exceed 0.25 ug/L.
- (i) Listed value assumes 2 liters/day water consumption, 70 kg body weight, and 20% relative source contribution from drinking water.
- (j) Concentrations of individual PAHs are adjusted by dividing the concentrations by the potency equivalency factors (PEFs) in the table on the following page. The limit applies to the sum of these adjusted concentrations.

* For definitions of terms and acronyms used in Table 1, please see the staff report, *A Complication of Water Quality Goals*, available on the internet at http://www.swrcb.ca.gov/rwqcb5/available_documents/wq_goals pages 9 to 13.

3.3 Quarterly Status Report- §2652(d)

Dischargers, UST operators, or permittees are to report at least quarterly to the Regional Board and LIA until investigation and cleanup of the site is deemed adequate (more frequent reporting may be required by the Lead Agency). These reports are to include the following minimum information:

1. A description of the groundwater sampling event, including field logs. Field logs shall contain depth to water, method of purging, water quality parameters, volume of water purged, site conditions, and any changes noted in the condition of the well and/or water quality data.
2. A table(s) listing all monitoring well details including: well number, date installed, casing diameter, casing material, slot size, surveyed elevation, reference elevation, screen interval, filter pack interval, and aquifer zone.
3. Cumulative data tables containing all soil and groundwater analytical results, reporting limits, depth to groundwater, groundwater elevations and Analytical Laboratory.
4. Groundwater elevation maps for appropriate water bearing units, as applicable. If the site is in remediation with groundwater pump and treat operations, define the zone of capture for any extraction well(s) on the contour map.
5. A groundwater flow diagram showing historical flow directions and gradients (Rose Diagrams).
6. Isoconcentration contour maps for petroleum products and constituents in appropriate water bearing units, as applicable.
7. A printed copy of the laboratory analytical data report. Water samples are to be analyzed for the appropriate minimum verification analyses specified in Table

#2, (below) unless otherwise directed by the lead regulatory agency.

8. Status and timelines of investigation and cleanup activities including the results of all investigations implemented or proposed to date.
9. If applicable, the status of any ongoing remediation, including operational data on the mass of contaminant removed from the subsurface, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system.
10. Method of disposal of any contaminated soil or water, and manifests for transport of all hazardous substances.
11. Applicable conclusions and recommendations. For example, if the existing monitoring well network does not define the lateral and vertical extent of groundwater degradation, the discharger is to submit a proposal and workplan to complete additional work as needed to define the extent.

Once a year, preferably following the fourth quarter monitoring that includes one complete hydrologic cycle; the quarterly report is to include the following additional information:

1. A description of all remedial activities conducted during the year, periodic and cumulative removal rates, an analysis of system effectiveness and operational schedule, and plans to optimize remediation system effectiveness, if appropriate.
2. An analysis of whether the contaminant plume is being remediated effectively, or is continuing to migrate.

**TABLE #2 RECOMMENDED MINIMUM VERIFICATION ANALYSES
FOR UNDERGROUND STORAGE TANK INVESTIGATIONS**
(See explanation on following page.)

Tank Contents (Carbon Range)	Gasoline by 8015M or 8260B	Diesel by 8015M	BTEX by 8021B or 8260B	VOCs by 8260B ⁽¹⁾	Semi-VOCs by 8270C ⁽²⁾	Oil & Grease by 1664A	PCBs by 8082	Total Lead by 7421	Title 22 Metals ⁽³⁾
Unknown Fuel (C4-C36)	X	X		X				X	
Gasoline (C4-C20)	X			X				X	
Diesel (C10-C36)		X	X	X					
Jet Fuel/Kerosene (C9-C20)		X	X						
Heating Oil (C10-C32)		X	X						
Stoddard Solvent (C8-C20) (Non-Chlorinated)		X		X					
Chlorinated Solvents				X	X				
Waste Oil or Unknown Contents	X	X		X	X	X	X		X

Notes:

1. EPA Method 8260B analyses must include all analytes listed in the method plus fuel oxygenates methyl-tertiary-butyl ether (MTBE), diisopropyl ether (DIPE), ethyl-tertiary-butyl ether (EtBE), tertiary-amyl-methyl ether (TAME), tertiary-butanol (TBA), methanol and ethanol and fuel additives 1,2-dichloroethane (1,2-DCA) and ethylene dibromide (EDB or 1,2-dibromoethane).
2. If pentachlorophenol (PCP) is identified, analyze the soil and/or water sample for dioxins and furans by EPA Method 8290 and pesticides by EPA Method 8081A.
3. Method 6010B may be used for all but the following metals, for which individual AA methods are required: Antimony & Arsenic by 7062, Cadmium by 7131A, Lead by 7421, Mercury by 7471A, Nickel by 7521, Selenium by 7742, and Thallium by 7841.
4. Non-proprietary, performance based analytical methods may be used with approval of Regional Board staff

Explanation for TABLE #2: MINIMUM VERIFICATION ANALYSES

1. As other methodologies are developed and accepted by the USEPA and the DHS, they may also be used if they have equal or better performance than the listed methods.
2. For drinking water sources, USEPA and DHS recommend that the 500 series methods for volatile organics be used in preference to the 8000-wastewater series methods due to lower detection limits and superior laboratory QA/QC. The 500 series currently comparable to Method 8260B is Method 524.2.
3. Appropriate analyses are to be used for detection of leaking tank contents. For example, there may be multiple fuels dispensed from the individual tank over its active life. Regulators must determine if the UST was used for multiple fuels, and require the appropriate analyses.
4. Total Petroleum Hydrocarbons as gasoline (TPHg) and diesel (TPHd) ranges (volatile and extractible, respectively) are to be analyzed and characterized by GC/FID with a fused capillary column and prepared by EPA method 5030 (purge and trap) for volatile hydrocarbons, or extracted by sonication using Method 3550 for extractible hydrocarbons. Fused capillary columns are preferred to packed columns; a packed column may be used as a "first cut" with "dirty" samples or once the hydrocarbons have been characterized and proper QA/QC is followed.
5. Silica gel cleanup of TPHg and TPHd samples to remove weathered hydrocarbons or breakdown products is not acceptable, as these compounds removed may contribute to impairment of beneficial uses of water through adverse taste and odor and/or toxicity. If natural background compounds are suspected to be contributing to high TPH concentrations that are not associated with the petroleum hydrocarbon release, comparison with samples from background locations, out of the influence of the petroleum hydrocarbon release may be used to justify adjusting TPH concentrations.
6. Tetraethyl lead analysis may be requested if the total lead concentration exceeds the naturally occurring (or background) concentration for lead.
7. Oil and Grease (O & G) analysis may be requested when heavy, straight chain hydrocarbons are present. As of 1 January 2002, US EPA requires O & G analysis by EPA Method 1664A.
8. Practical Quantitation Limits (PQLs), also called Reporting Limit by many laboratories, are influenced by analytical method selection, matrix problems and laboratory QA/QC procedures. The PQLs shall be equal to or lower than the detection limits (DLRs) for purposes of reporting published by DHS (<http://www.dhs.ca.gov/ps/dsdwem/chemicals/DLR/dlindex.htm>) or the minimum levels (MLs) published by the State Water Resources Control Board in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (<http://www.swrcb.ca.gov/iswp/index.html>), which ever is lower. When such PQLs are not achievable, an explanation must be submitted on the laboratory data sheets.
9. PQL chain-of-custody and the signed laboratory data sheets are to be submitted containing the laboratory's assessment of the condition of the samples on receipt including temperature, suitable container type, air bubbles present/absent in VOA bottles, proper preservation, appropriate holding time, etc. The sheets must also include the dates sampled, submitted, prepared for analysis, and analyzed.

10. PEAKS THAT DO NOT CONFORM to the standards must be reported by the laboratories, including any unknown complex mixtures that elute at times which vary from the standards. These mixtures may not compare to the standards and may not be readily identified; however, they are to be reported. At the discretion of the LIA or the Regional Board the following information is to be contained in the laboratory report:

- The relative retention time for the unknown peak(s) relative to the reference peak in the standard;
- Copies of the chromatogram(s);
- Type of column used;
- Initial temperature;
- Temperature program in degrees Celsius per minute; and
- Final temperature.

3. Hydrographs and plots of chemical concentrations versus time for each monitoring well that has had detectable levels of contaminants.
4. An estimate of the quantity of contaminants remaining in soil and groundwater.
5. The anticipated date for completion of cleanup activities.
6. An identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
7. A proposal and rationale for any necessary revisions to the groundwater sampling plan and/or list of analytes.

4.0 CORRECTIVE ACTION PLAN (CAP) **-§2725**

Once the lateral and vertical extent of soil and groundwater degradation is defined, the discharger is to proceed with the CAP. The CAP is separated into the Problem Assessment Report (PAR), the Feasibility Study (FS), and the Final Remediation Plan (FRP). At every step of the CAP, the lead regulatory agency will review submitted documentation, and direct the discharger to proceed with proposed actions, or modify these actions to meet regulatory compliance for protection of water resources, health and safety, and sensitive ecological receptors until the FRP is successfully implemented and no further action is required at the site.

4.1 Problem Assessment Report (PAR)

The PAR summarizes the PIER and all additional investigations that characterize the site. The PAR should include sufficient detail on the nature and extent of the contamination to provide a basis for future decisions regarding subsequent cleanup and abatement actions. The discharger is to propose site-specific cleanup goals, and identify available remedial alternatives that have a substantial likelihood to achieve cleanup goals and objectives.

Investigations and characterization activities are to be presented accurately in the PAR, and should include the following minimum information:

- The depth and extent of free product found, including an estimate of volume removed and volume remaining.
- Figures delineating lateral and vertical extent of soil contamination, groundwater degradation plume(s), and vapor plumes as appropriate.
- Tables summarizing analytical data such as compound concentrations found in soil and groundwater, and sample depth.
- An evaluation of the physical and chemical characteristics of the hazardous substance or its constituents, including its toxicity, persistence and potential for migration in water, soil, and air.
- An estimate of the mass of contaminants remaining in soil and groundwater.
- Identification of applicable cleanup levels for affected or threatened groundwater and surface water, and a rationale for selecting these levels.

Note: Cleanup levels for leaking underground storage tanks sites are based on regulatory requirements as presented in *State Water Board Resolution 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under California Water Code Section 13304, and Water Quality Control Plans of the Central Valley Region, including "Policy for Investigation and Cleanup of Contaminated Sites."*

- Cross sections based upon boreholes, monitoring wells, trenches, and supporting geological mapping logs.
- A site map showing sensitive receptors

(i.e.) local water supply wells, buildings or utilities impacted or potentially threatened).

- A risk assessment will be necessary to demonstrate that the site poses no unacceptable risks to human health or the environment. The site-specific risk assessment must use the Office of Environmental Health Hazard (OEHHA) toxicity data (cancer slopes). This information may streamline the consideration of remedial alternatives and the timeline for implementation.
- Appropriate conclusions and recommendations for the next phase of work.
- An updated Site Conceptual Model illustrating site conditions showing the extent of known soil and groundwater impact relative to the leaking UST system and the relationship between contaminants and potential receptors. (See Figure 1 below for an example).

4.2 Feasibility Study (FS) Report

The FS Report provides a summary of remedial alternatives evaluated to address applicable cleanup levels for affected or threatened human health and/or waters of the State. The FS Report must include a cost evaluation for at least two remedial alternatives and a recommendation for the preferred remedial action. The FS should identify the preferred remedial technologies and may recommend pilot testing of the selected remedial technologies before full-scale design.

The FS Report is to include the following minimum information:

1. An evaluation of remedial alternatives that have a substantial likelihood to achieve cleanup of all impacted soils and/or soils and groundwater. At a minimum, two of the following technologies must be evaluated for implementability, cost and effectiveness, (other technologies not listed may also be evaluated):

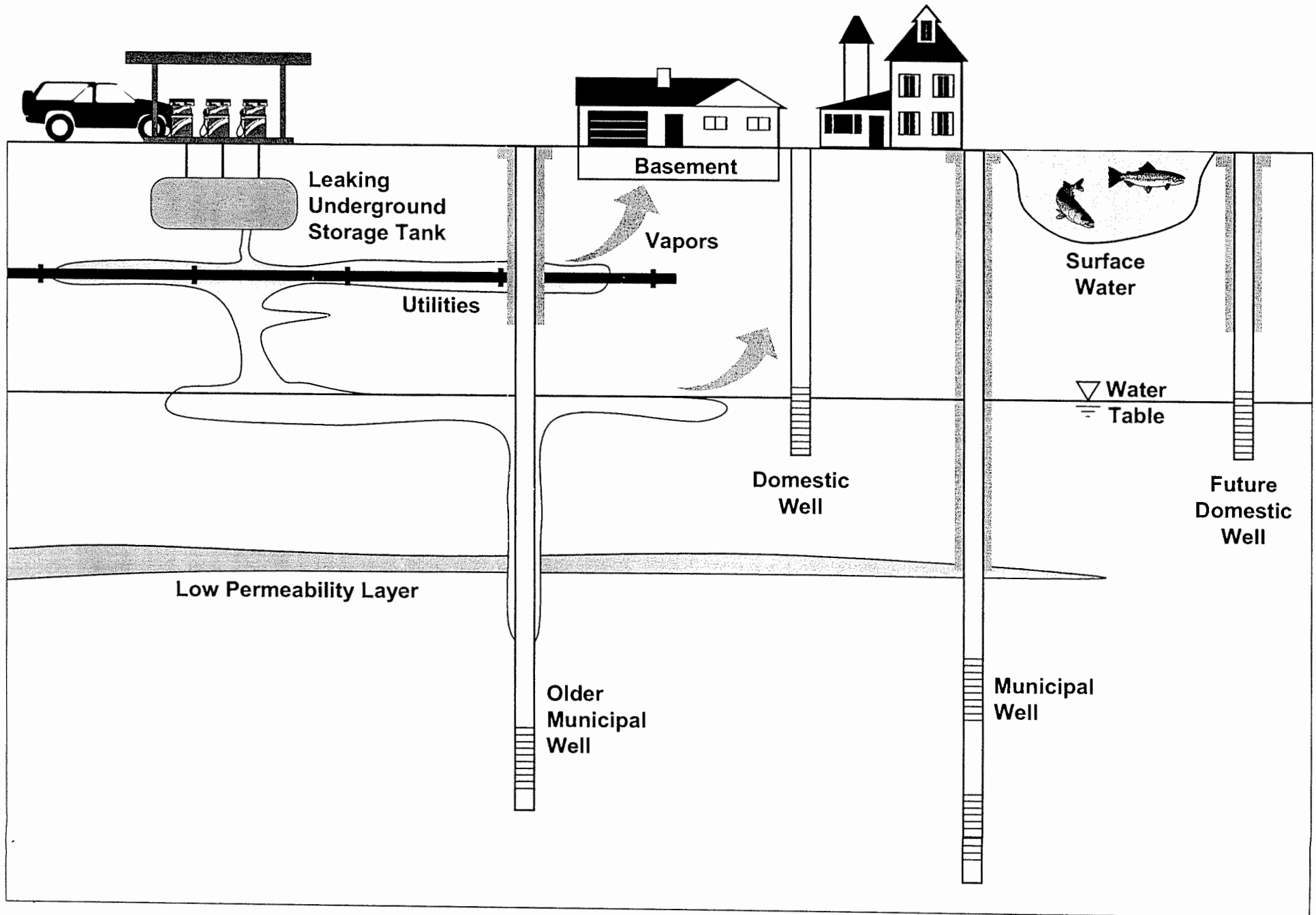
- Excavation;
- Soil vapor extraction;
- Bioventing;
- Bioremediation (bio barriers);
- Groundwater extraction and treatment;
- Biosparging;
- In-situ oxidation;
- Dual-phase extraction and treatment and
- Monitored natural attenuation.

2. The rationale for selecting the preferred remedial alternative for restoring and protecting impacted or threatened waters.
3. A timeframe for achieving remedial goals.
4. A cost comparison for remedial alternatives evaluated.

With minimal investigation and explanation, some remedial alternatives may be eliminated as simply not feasible for the site. For instance, soil vapor extraction is practical in sandy soils but difficult to justify for tighter clay soils where excavation and landfill disposal may be more effective in meeting cleanup levels.

Note: If the proposed alternatives include either soil disposal to a landfill, groundwater discharge to the sanitary sewer, or venting vapor to the atmosphere, etc., the discharger must include assurances from each appropriate regulating agency that the proposed activity is acceptable and permissible.

A General Site Conceptual Model



5. Disposal methods requiring either the Regional Board's General Permit for discharge to surface water (NPDES) or land (WDRs) may be evaluated. Selection of this type of disposal requires the responsible party to submit an application and supporting documentation in a timely manner. (See Region 5 Web page).

4.3 Final Remediation Plan (FRP)

The FRP is a corrective action implementation plan with detailed plans of the approved remedial system to be installed, and a proposed schedule for system construction and startup.

The FRP is to include the following minimum information:

- A description of the remedial technology approved by the LIA and/or Regional Board.
- A listing of the approved cleanup levels from the PAR, and predicted timeframe to meet these cleanup levels using the selected remedial alternative.
- Detailed plans for installation of the approved remedial alternative, such as soil to be excavated, layout of the soil vapor extraction system, air sparge injection points, the number and placement of remedial wells and associated equipment, the proposed pumping rate, disposal of wastes, etc.
- A discussion of implementation, including a phased schedule for construction and system startup.
- Operation and maintenance procedures, tests, and schedules including startup, long-term monitoring program for influent and effluent concentrations and periodic evaluation of the need for system optimization.

Should delays occur or time extensions be needed, such requests, with supporting documentation, are to be submitted by letter to the LIA and/or Regional Board.

5.0 VERIFICATION MONITORING-\$2727

Verification monitoring includes all activities required to verify implementation of the CAP and evaluate its effectiveness. The discharger shall verify successful completion of the CAP through sampling or other monitoring of soil and/or groundwater for a period of time determined by the lead agency to demonstrate that seasonal groundwater fluctuations will not mobilize any remaining contamination in quantities sufficient to degrade water quality and that rebound of contaminant concentrations will be insignificant. Using the monitoring results obtained during this period, the discharger shall evaluate the effectiveness of corrective actions at the site.

6.0 NO FURTHER ACTION REQUIRED (NFAR) REPORTING

All regulatory agencies, including the Regional Board, are required to issue a standard Case NFAR letter when closure is appropriate. That letter is described in Section 25296.10(g) of the Health and Safety Code. The purpose for a NFAR report is to provide a document upon which the regulator may make an objective decision regarding a request by the responsible party for site NFAR when contaminants remain but are no longer considered to be a significant risk. (See Disclaimer, page 2). In general, Regional Board staff approve NFAR requests when risks to public health and safety and ecological receptors are reduced to insignificant levels and:

1. Groundwater quality/beneficial uses are not threatened by soil contamination, and chemical contaminants in groundwater have been remediated to non-detectable levels, or
2. Groundwater contains detectable contaminants below water quality objectives and concentrations are expected to reach background conditions through natural processes within a reasonable period of time, or
3. Groundwater contains contaminants above water quality objectives, where best avail-

able, cost-effective technology has been implemented and chemical concentrations in groundwater are projected to meet water quality objectives through natural processes within a reasonable period of time, i.e., prior to any potential future beneficial use of groundwater. Patterns of existing and projected future demands for usable water resources in the area must be considered in determining what period of time is reasonable.

Regional Board staff recognize that the total cleanup of a site, although possible, is not always technically or economically feasible. Therefore, a NFAR designation for a UST site may be considered if the source has been removed and analysis of the groundwater concentration trends indicates the chemical plume is reducing in size, such that compliance with water quality objectives will be achieved within a reasonable period.

6.1 NFAR Process

When Regional Board or LIA staff concur that the petroleum source is removed or remediated, risks to public health and safety and ecological receptors are reduced to insignificant levels, and groundwater has been cleaned up to levels protective of existing and future beneficial uses, no further action is appropriate for a site.

At this point, the discharger will be requested to submit a closure report to the lead agency and the Regional Board with a formal request for no further action at the subject site. The discharger must also certify in writing a complete list of all record fee title owners to the Regional or LIA. Once the lead agency has reviewed the closure report and the NFAR request, and determines that the NFAR report substantiates the request for closure, Regional Board or LIA staff will notify all current record owners of fee title to the site of the determination that no further corrective action is required. The lead agency will request monitoring wells and remedial systems are properly destroyed, transferred or maintained under City/County approved permit. A NFAR letter will be issued once verification of proper well destruction/equipment removal is received.

A NFAR letter indicates that the discharger is no longer required to conduct active remediation, monitoring, or reporting work at the site unless new information indicates the presence of previously unknown water quality impacts or threats to health, safety or sensitive ecological receptors or that prior site characterization is shown to have been misrepresented.

6.2 Case Evaluation

The following recommendations in sections 6.3, 6.4 and 6.5 below apply only to sites contaminated with petroleum hydrocarbon fuels, (i.e., gasoline, diesel, kerosene, stoddard solvent, mineral spirits, fuel oil, aviation fuel mixtures and their additives), and should not be used for release cases involving chlorinated solvents, metals or other types of contaminants.

Each site is evaluated on a case-by-case basis to determine if it is a "low risk" site. (A site may be considered a low risk site by definition, or achieve a low risk status by site remediation.) For each site, complete characterization is required to determine the lateral and vertical extent of contamination, the risk to human health and safety and the environment (including the unsaturated zone, groundwater, and surface water), and the impacts on or threats to existing and potential future beneficial uses of water resources. The discharger must demonstrate that the selected remedial measure(s) are effective, and site monitoring must show that the remedial measure(s) applied by the discharger has a high probability to reduce or remove the petroleum hydrocarbons to acceptable levels within a reasonable period.

6.3 NFAR Criteria for Low Risk Vadose Zone Cases

Vadose zone cases are those sites for which documentation has been provided to demonstrate that fuel hydrocarbons or additives have not reached and are not expected to reach groundwater. If site conditions do not meet the criteria below, then additional remediation may be required. All of the following must be demonstrated in order to designate a vadose zone site as “low risk”.

1. The release has been stopped and the source of contamination has been removed or remediated. Soil that contains mobile constituents in concentrations that threaten to degrade water quality or result in a significant risk to human health and safety or the environment (as determined by site specific data, or as concluded using appropriate mathematical models) should be considered a source.
2. The site has been adequately characterized. The vertical and lateral extent of subsurface impact must be defined to the degree that it is necessary to evaluate whether the site currently poses, or in the future may pose, a significant threat to human health and safety, waters of the State, or other nearby sensitive receptors. The level of detail required at a given site will depend on the contaminants of concern, the types of potential receptors and exposure pathways, and the proximity of the potential receptors. Groundwater beneath a site and adjacent surface waters are to be considered as receptors.
3. No waters of the State, or other sensitive receptors are likely to be impacted. Waters of the State include all groundwater and surface water regardless of current use. Central Valley aquifers generally are not segregated into discrete units, but are subject to vertical and horizontal migration of water (either by natural or man-induced mechanisms) and any pollutants carried by or in the water may degrade the waters of the State. Groundwater sample(s) are

required in all cases unless it can be shown that the collection of such sampling) is unreasonable or unattainable, (e.g., the estimated depth to water is greater than 100 feet below the deepest soil impacts).

6.4 NFAR for Cases Above Background Groundwater Conditions

Ideally, the goal of remediation is to ensure that contaminants are cleaned up to background water quality. However, contaminants may be allowed to remain in the groundwater above background levels in certain cases. Any proposal to leave contaminants in groundwater at levels above background must include justification for such degradation. Cleanup levels above background must also conform to all applicable state policies, regulations and procedures. See *Policy for Investigation and Cleanup of Contaminated Sites* in Chapter IV of the Water Quality Control Plans (Basin Plans) for the Central Valley Region.

Central Valley Regional Water Quality Control Board staff have closed UST cases that do not meet background water quality levels, but the water quality objectives at the site are met, or will be met within a reasonable timeframe. In most of these instances, concentrations of pollutants were either below or close to applicable water quality objectives prior to closure.

Cases that have been closed above background levels in groundwater were deemed to be low risks to other receptors such as surface water and drinking water wells. Regional Board staff considers the following low risk factors when making this determination:

1. The source of the UST release has been identified and removed.
2. Free-phase product in groundwater has been removed to the full extent practicable, in accordance with the UST Regulations (Title 23, CCR, Section 2655).
3. Contaminants remaining in the vadose zone cannot migrate in soil vapor or leach at concentrations that would cause

groundwater to exceed water quality objectives.

4. There are no existing water supply wells, surface waters or other receptors threatened by the remaining contaminants in soil or groundwater.
5. Pollutants remaining in groundwater do not create or threaten to create risk to human health and safety, or to future beneficial use(s) of the groundwater. Patterns of existing and future demands for usable water resources in the area must be considered in determining what period of time is reasonable to reach non-detectable (or background) concentrations.
6. The plume size is stable and sufficiently limited in lateral and vertical extent and contaminant concentrations detected in groundwater show a decreasing trend with time. One hydrologic cycle (four quarters) of monitoring after active remediation measures have ceased is usually considered to be the minimum necessary to determine site groundwater and plume conditions.

Issuing NFAR letters for low risk cases is consistent with State regulations and policies. The practice of closing low risk cases is also consistent with the actions taken by the State Water Resources Control Board and Regional Boards throughout the State.

6.5 NFAR for Cases Exceeding Water Quality Objectives

The Regional Board and LIA staff are receiving more requests each year from UST owners or operators to grant closure of UST cases where groundwater has not attained water quality objectives. The responsible parties believe that they have implemented reasonable cleanup and abatement at these sites and that it is no longer technologically or economically feasible to continue corrective actions and monitoring.

A common example is when remedial actions have reduced groundwater contaminants by a large percentage, but constituents still exceed

water quality objectives. This may occur at sites where hard to reach soil contamination remains beneath building foundations, and the contamination continues to leach to groundwater. In these difficult cases, responsible parties may argue that the incremental cost for further mass removal exceeds the incremental benefit.

Regional Board staff believe that in some cases it is reasonable to issue a NFAR letter for sites that do not meet water quality objectives but present a low risk and are expected to meet water quality objectives in the near future. To receive such case closure, responsible parties need to demonstrate that site contaminants are degrading, and that site contaminants will reduce to levels protective of beneficial uses in a reasonable period of time.

Numerical water quality limits for petroleum fuel mixtures, constituents and additives, consistent with applicable water quality objectives, are available in the following staff document *Beneficial Use-Protective Water Quality Limits for Components of Petroleum-Based Fuels*. This document is updated regularly and available on the Regional Board website at: http://www.swrcb.ca.gov/rwqcb5/available_documents/index.html#WaterQualityGoals.

Board staff are currently requiring the following information to support requests to issue a NFAR letter at UST sites with contaminant concentrations above water quality objectives:

1. Demonstration that the plume is stable with either an overall annual decrease in size or an annual decrease in contaminant concentration trend.
2. Calculations or modeling results, including monitoring verification of model conclusions, which show when water quality objectives are predicted to be achieved.
3. Verification that there are no current or anticipated uses of the impaired water within the timeframe projected to meet water quality objectives. Institutional controls may be needed to prevent such use if this period is not sufficiently short.

6.6 NFAR Documentation

The purpose for a NFAR request report is to provide a document upon which the regulator may make an objective decision regarding the requested closure. At a minimum, the NFAR request must include the information outlined below. Responsible parties are to provide a one or two sentence narrative summary for each numbered item below, and list the section number where supporting information can be found in the NFAR request. Additional information submitted, such as fate and transport modeling, must include the assumptions and variables used. The NFAR request must include signatures of registered professionals as required by the California Business and Professions Code.

1. Site history and current site conditions.
2. Site geology and hydrogeology.
3. Sensitive potential receptors including water supply wells and surface water.
4. Provide a map showing the location of all water supply wells used for municipal, domestic, agriculture, industrial and other uses within 2,000 feet of the site. Provide well details and distances in a table.
5. Provide scaled site maps of the area impacted showing locations of former and existing tank systems, excavation and sample locations, boring and monitoring well locations, groundwater elevation contours, subsurface utilities, buildings, streets, and any nearby surface waters.
6. Provide boring logs and cross-sections to show site lithology.
7. Report the volume of excavated soil disposed off-site, or remaining on-site.
8. Describe the fate of any remaining monitoring and remediation wells (destroyed, ownership transferred, or to remain in use).
9. Provide tabulated results of all groundwater elevations and depths to water.
10. Provide tabulated results of all sample analyses, including the sampling method and detection limits. Analytical results must include TPH and BTEX constituents, lead, MtBE, EtBE, TBA, ETBE, DIPE, TAME, ethanol, methanol, ethylene dibromide, 1,2-dichloroethane and other constituents as indicated in Table #2 above. Provide any WET or TCLP results.
11. Discuss concentration and mass changes over time, and current concentrations of contaminants remaining in groundwater at the site.
12. Provide isoconcentration contour maps of contaminants of concern to define the lateral and vertical extent of contaminants remaining in soil and groundwater. The contour maps should present an estimated "zero line" of contaminant concentrations both on-site and off-site.
13. Provide a summary of the remedial method(s) used to clean up the site. Include the calculated zone of influence, assumptions used to design the remedial system(s), and the duration of remedial activities.
14. Provide a discussion of whether background is unattainable using best available remediation method(s).
15. Provide a discussion (and estimate) of contaminant mass remaining in soil and groundwater versus contaminant mass removed or destroyed by soil excavation or remedial actions.
16. Provide assumptions, parameters, calculations and the model used in any risk assessments.
17. Provide assumptions, parameters, calculations and the model used in fate and transport modeling.

18. Provide a rationale why the conditions remaining at the site will not adversely impact water quality, human health, and safety, or other beneficial uses. The rationale for NFAR must include a finding about present and future water use, and risks the site may still represent to human health and safety, and water quality.
19. Provide a list of technical reports submitted for site assessment, corrective action, confirmation sampling, and closure.

20. Provide any additional comments supporting site NFAR.

When the lead agency determines that the closure report substantiates the closure request, remedial and monitoring activities may cease. A request to destroy monitoring and remedial wells will be issued, and upon verification of proper well destruction, transfer of ownership, or other lead agency approved use, Board or LIA staff will issue a NFAR letter for the site.

DISCLAIMER

The NFAR letter does not relieve the tank owner of any responsibilities mandated under the California Health and Safety Code and California Water Code if existing, additional, or previously unidentified contamination at the site causes or threatens to cause pollution or nuisance or is found to pose a threat to public health or water quality. Changes in land use may require further assessment and possible mitigation.

ACROMYMS
(As used in Appendix A)

CAL EPA	California Environmental Protection Agency
CAP	Corrective Action Plan
CCR	California Code of Regulations
DHS	Department of Health Services
DLR	Detection Limits Reportable
FRP	Final Remediation Plan
FS	Feasibility Study
GCFID	Gas Chromatography - Flame Ionization Detector
H&SC	Health & Safety Code
IRIS	Integrated Risk Information System - US EPA
LIA	Local Implementing Agency
LOP	Local Oversight Program (An LIA Receiving SWRCB funds)
LUFT	Leaking Underground Fuel Tank
LUST	Leaking Underground Storage Tank
MCL	Maximum Contaminant Level
MVA	Minimum Verification Analysis
NFAR	No Further Action Required
NPDES	National Pollutant Discharge Elimination System
OEHHA	Office of Environmental Health Hazard Assessment
PAH/PNA	Polynuclear Aromatic Hydrocarbon/Polynuclear Aromatic
PAR	Problem Assessment Report
PEF	Potency Equivalent Factors
PIER	Preliminary Investigation and Evaluation Report
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RB	Regional Water Quality Control Board (Regional Board)
SWRCB	State Water Resources Control Board
TCLP	Total Concentrate Leachate Procedure
US EPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOA	Volatile Organic Analysis
WET	Waste Extraction Test
WDR	Waste Discharge Requirements

**TABLE 1 - CHECKLIST OF REQUIRED DATA
FOR NO FURTHER ACTION REQUESTS AT UNDERGROUND TANK SITES**

Site Name and Location:	
<input type="checkbox"/>	1. Distance to production wells for municipal, domestic, agriculture, industry and other uses within 2000 feet of the site;
<input type="checkbox"/>	2. Site maps, to scale, of area impacted showing locations of any former and existing tank systems, excavation contours and sample locations, boring and monitoring well elevation contours, gradients, and nearby surface waters, buildings, streets, and subsurface utilities;
<input type="checkbox"/>	3. Figures depicting lithology (cross section), treatment system diagrams;
<input type="checkbox"/>	4. Stockpiled soil remaining on-site or off-site disposal (quantity);
<input type="checkbox"/>	5. Monitoring wells remaining on-site, fate;
<input type="checkbox"/>	6. Tabulated results of all groundwater elevations and depths to water;
<input type="checkbox"/>	7. Tabulated results of all sampling and analyses:
<input type="checkbox"/>	Detection limits for confirmation sampling
<input type="checkbox"/>	Lead analyses
<input type="checkbox"/>	8. Concentration contours of contaminants found and those remaining in soil and groundwater, and both on-site and off-site:
<input type="checkbox"/>	Lateral and
<input type="checkbox"/>	Vertical extent of soil contamination
<input type="checkbox"/>	Lateral and
<input type="checkbox"/>	Vertical extent of groundwater contamination
<input type="checkbox"/>	9. Zone of influence calculated and assumptions used for subsurface remediation system and the zone of capture attained for the soil and groundwater remediation system;
<input type="checkbox"/>	10. Reports / information <input type="checkbox"/> Unauthorized Release Form <input type="checkbox"/> QMRs (Dates)
<input type="checkbox"/>	Well and boring logs <input type="checkbox"/> PAR <input type="checkbox"/> FRP <input type="checkbox"/> Other (report name)
<input type="checkbox"/>	11. Best Available Technology (BAT) used or an explanation for not using BAT;
<input type="checkbox"/>	12. Reasons why background was/is unattainable using BAT;
<input type="checkbox"/>	13. Mass balance calculation of substance treated versus that remaining;
<input type="checkbox"/>	14. Assumptions, parameters, calculations and model used in risk assessments, and fate and transport modeling;
<input type="checkbox"/>	15. Rationale why conditions remaining at site will not adversely impact water quality, health, or other beneficial uses; and
<input type="checkbox"/>	16. WET or TCLP results
By:	Comments:
Date:	

APPENDIX B
HISTORICAL SOIL BORING LOGS AND WELL
CONSTRUCTION DETAILS

No Further Action Required (NFAR) Report and Request for Site Closure


ConocoPhillips
76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

77CP.01631.11.1222

November 6, 2006

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By W.W.
Project Name Unocal 15599 Hesperian S. L.	Well Cover Elevation	Date Drilled 4/22/91
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		2" asphalt pavement over 8" concrete slab, underlain by fill material consisting of clay with gravel and sand.
4/5/7		5	ML/ MH	Sandy silt, trace angular gravel to 3/4" diameter, moist, stiff, olive gray.
				Silt, moist, stiff, olive gray.
6/5/2		10	SP/ SM	Sand, with silt, trace gravel to 3/4" diameter, poorly graded, moist, loose to medium dense.
2/4/4		15	ML/ MH to CL/ CH	Clayey silt to silty clay, trace sand, trace caliche, moist to saturated below 16', firm to stiff, dark gray.
				
		20	CL	Clay, grayish brown.

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By W.W.
Project Name Unocal 15599 Hesperian S. L.	Well Cover Elevation	Date Drilled 4/22/91
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
6/11/13				Clay, with sand, trace gravel to 1/2" diameter, trace rootlets, very moist to saturated, very stiff, grayish brown.
				TOTAL DEPTH: 25'

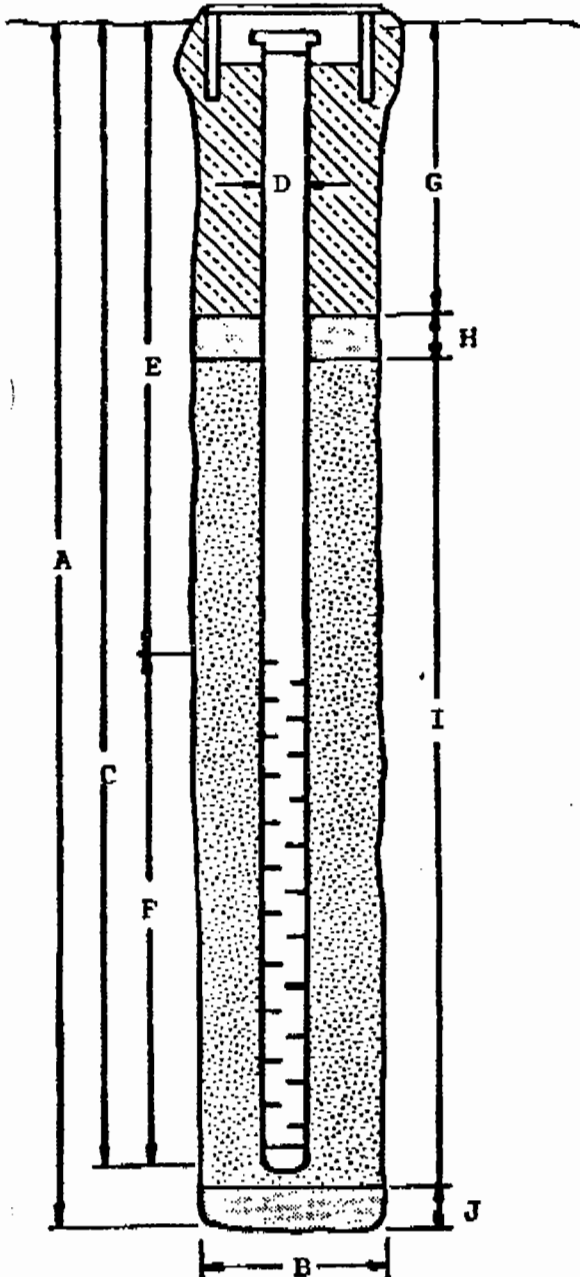
W E L L C O M P L E T I O N D I A G R A M

PROJECT NAME: Unocal 15599 Hesperian San Leandro BORING/WELL NO. MW1

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: _____

Flush-mounted Well Cover




- A. Total Depth: 25'
- B. Boring Diameter*: 9"
- Drilling Method: Hollow Stem Auger
- C. Casing Length: 25'
- Material: Schedule 40 PVC
- D. Casing Diameter: OD = 2.375"
ID = 2.067"
- E. Depth to Perforations: 10'
- F. Perforated Length: 15'
- Perforation Type: Machined Slot
- Perforation Size: 0.010"
- G. Surface Seal: 6'
- Seal Material: Concrete
- H. Seal: 2'
- Seal Material: Bentonite
- I. Gravel Pack: 17'
- Pack Material: RMC Lonestar Sand
- Size: #2/16
- J. Bottom Seal: None
- Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By W.W.
Project Name Unocal 15599 Hesperian S. L.	Well Cover Elevation	Date Drilled 4/22/91
Boring No. MW2	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Stratigraphy USCS	Description
		0		Asphalt pavement over sand and gravel. Fill material consisting of clay with gravel and sand, trace silt, moist, firm, brown, gravel to 2-1/2" diameter.
4/5/6		5	CL/ CH	Silty clay, trace sand, moist, stiff, greenish gray with slight grayish brown, mottling.
				Clay, with silt, trace sand, moist, firm, dark gray to dark greenish gray.
3/4/4		10	SP	Sand, trace silt, sand is predominantly fine-grained, moist, loose, dark greenish gray.
				Silty clay, trace sand, moist, firm, dark gray.
2/3/4		15	CL/ CH	
				Clayey sand, trace gravel to 1/2" diameter, saturated below 17.5', loose, dark grayish brown.
3/4/5			SC	
		20	CL	Clay, very dark grayish brown.

B O R I N G L O G

Project No. KEI-P90-1003		Boring & Casing Diameter 9" 2"		Logged By W.W.
Project Name Unocal 15599 Hesperian S. L.		Well Cover Elevation		Date Drilled 4/22/91
Boring No. MW2		Drilling Method	Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Stratigraphy USCS	Description
3/4/6			CL/ CH	Clay, trace silt, trace sand, trace rootlets, porous, moist, stiff, very dark grayish brown.
				TOTAL DEPTH: 25'

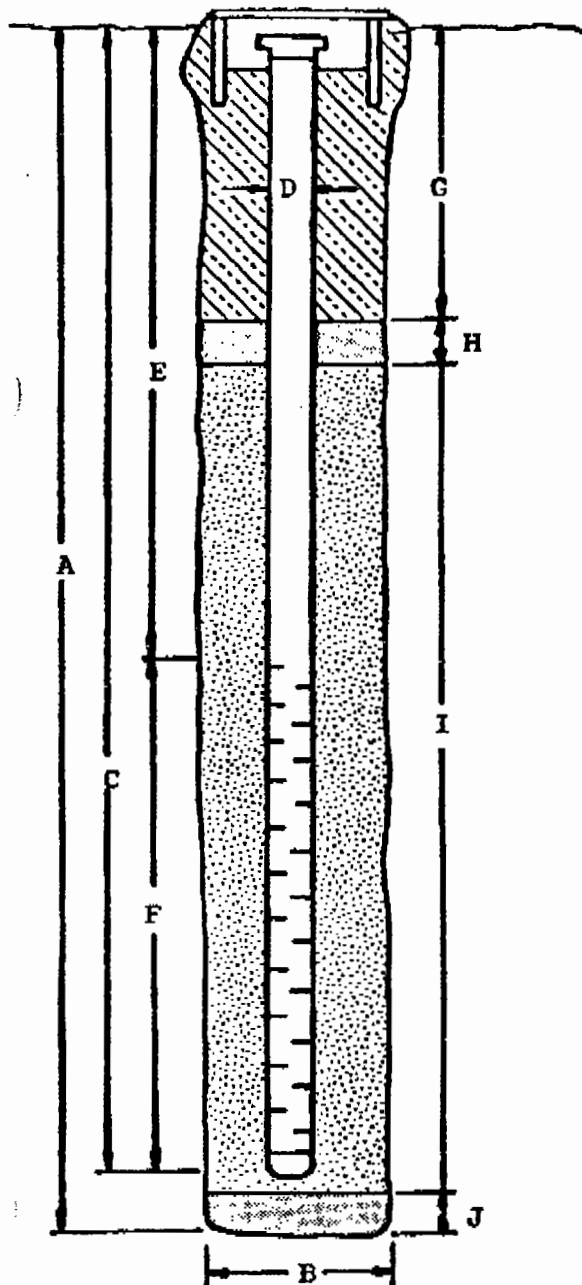
W E L L C O M P L E T I O N D I A G R A M

PROJECT NAME: Unocal 15599 Hesperian San Leandro BORING/WELL NO. MW2

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: _____

Flush-mounted Well Cover



A. Total Depth: 25'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem
Auger

C. Casing Length: 25'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 15'

Perforation Type: Machined
Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Concrete

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 17'

Pack Material: RMC Lonestar
Sand

Size: #2/16

J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By W.W.
Project Name Unocal 15599 Hesperian San L	Well Cover Elevation	Date Drilled 4/22/91
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		Asphalt pavement over sand and gravel. Fill material consisting of silty clay with gravel to 2-1/2" diameter, moist, firm, gray to brown.
			CL/ CH	
			MH	Silt, with clay, trace sand, moist, firm to soft, very dark gray.
2/2/2		5	CL/ CH	Silty clay, moist, soft, gray to greenish gray, trace rootlets.
			ML/ MH	Silt and clayey silt, moist, firm, greenish gray, trace caliche.
3/3/4		10		
			ML/ MH	Clayey silt, trace sand, trace root- lets, moist, firm, very dark gray.
2/3/4		15		
			SC	Clayey sand, with silt, trace gravel to 3/8" diameter, saturated below 18', free product present, firm to stiff, dark gray.
3/4/4	▽	20	ML	Silt, greenish gray.

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By W.W.
Project Name Unocal 15599 Hesperian San L	Well Cover Elevation	Date Drilled 4/22/91
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Stratigraphy USCS	Description
5/7/8		25	ML/ MH	Clayey silt, saturated, porous, greenish gray.
4/5/6			CL/ CH	Clay, trace sand and rootlets, moist, stiff, very dark gray and very dark grayish brown mottled.
				Clay, trace sand and rootlets, moist, stiff, gray to dark gray.
		30		
		35		
		40		
				TOTAL DEPTH: 25'

W E L L C O M P L E T I O N D I A G R A M

PROJECT NAME: Unocal 15599 Hesperian San Leandro BORING/WELL NO. MW3

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: _____

Flush-mounted Well Cover

A. Total Depth: 25'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem
Auger

C. Casing Length: 25'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 15'

Perforation Type: Machined
Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Concrete

H. Seal: 2'

Seal Material: Bentonite

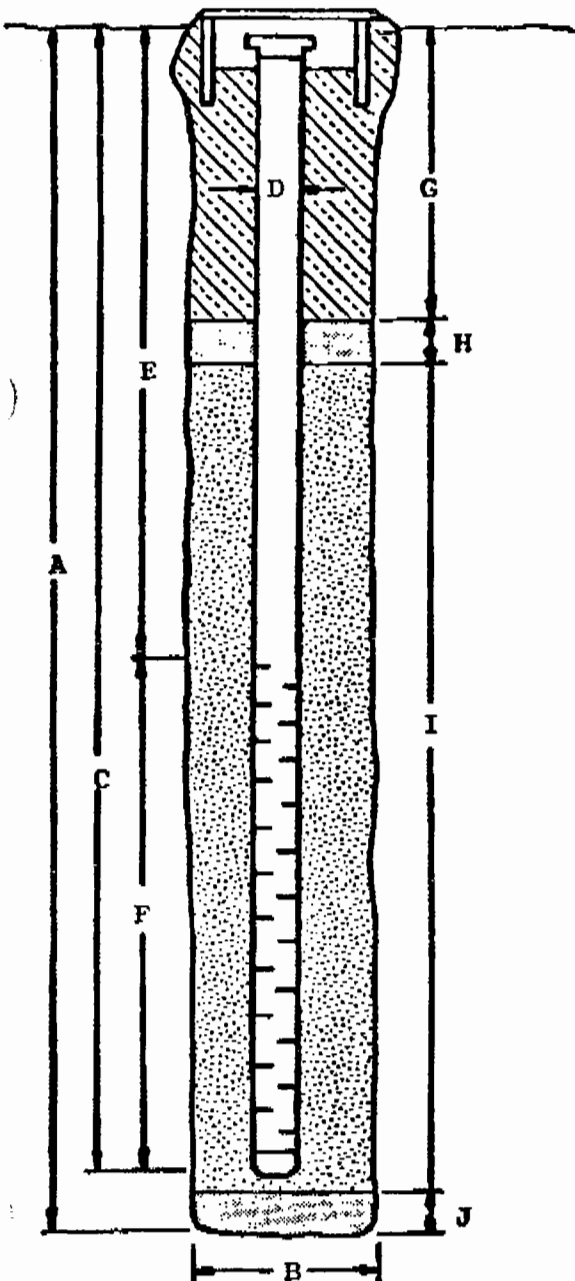
I. Gravel Pack: 17'

Pack Material: RMC Lonestar
Sand

Size: #2/16

J. Bottom Seal: None

Seal Material: N/A



*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal San Leandro, Hesper.	Well Cover Elevation	Date Drilled 7/2/91
Boring No. MW4	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		Asphalt pavement over silt, sand and gravel.
			ML/ MH	Clayey silt, with fine-grained sand, firm, moist, very dark grayish brown.
2/2/2		5	ML with SP	Sandy silt, sand is fine-grained, firm, moist, dark olive gray; interbedded with poorly graded sand, fine-grained, loose, moist, dark grayish brown.
2/2/2		10		Clayey silt, firm, moist, dark greenish gray and dark olive gray, mottled; interbedded with sandy silt, firm, very moist, dark greenish gray; and poorly graded sand, fine-grained, loose, moist, dark greenish gray.
3/3/3		15	CL/ CH	Silty clay, with coarse- to fine-grained sand, firm, moist, very dark grayish brown and very dark gray, mottled, with root holes.
2/3/4			CL/ ML	Silty clay to very clayey silt, moist, very dark grayish brown and very dark gray.
			SM	Silty sand, trace clay, sand is fine- to coarse-grained, loose, wet, very dark grayish brown.
7/6/8		20	CL	Sandy clay, medium- to fine-grained sand, stiff, moist, very dark grayish brown, with root holes and caliche.
			SM	Silty sand, as below.

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal San Leandro, Hesper.	Well Cover Elevation	Date Drilled 7/2/91
Boring No. MW4	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
			SM	Silty sand, up to 20% silt, sand is predominantly fine-grained, medium dense, wet, olive brown.
			CL/ CH	
6/9/11		25		Sandy clay, stiff to very stiff, moist, with voids, caliche nodules to 1" diameter, wet in voids and around nodules, very dark gray, grading to dark grayish brown below 25'.
		30		
		35		
		40		
				TOTAL DEPTH: 26'

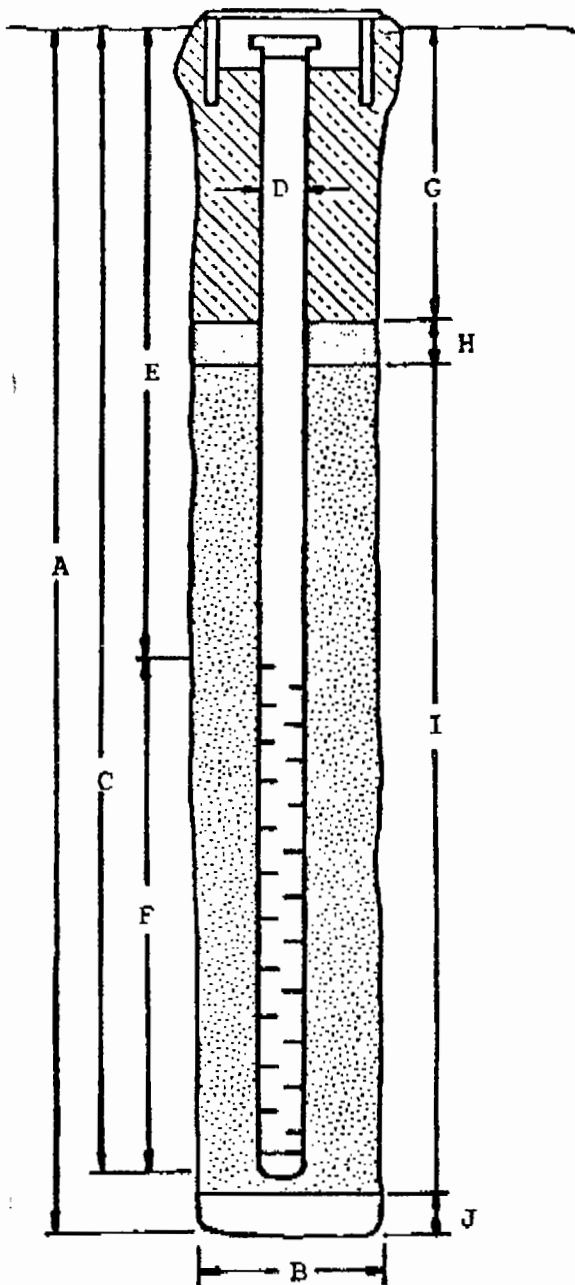
W E L L C O M P L E T I O N D I A G R A M

PROJECT NAME: Unocal San Leandro, Hesperian BORING/WELL NO. MW4

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: 91349

Flush-mounted Well Cover



- A. Total Depth: 26'
- B. Boring Diameter*: 9"
- Drilling Method: Hollow Stem Auger
- C. Casing Length: 26'
- Material: Schedule 40 PVC
- D. Casing Diameter: OD = 2.375"
ID = 2.067"
- E. Depth to Perforations: 10'
- F. Perforated Length: 16'
- Perforation Type: Machined Slot
- Perforation Size: 0.010"
- G. Surface Seal: 6'
- Seal Material: Neat Cement
- H. Seal: 2'
- Seal Material: Bentonite
- I. Gravel Pack: 18'
- Pack Material: RMC Lonestar Sand
- Size: #2/12
- J. Bottom Seal: none
- Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal San Leandro, Hesper.	Well Cover Elevation	Date Drilled 7/2/91
Boring No. MW5	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		Asphalt pavement over silt, sand and gravel fill, olive brown.
				Clay, sand and gravel with asphalt, wood and assorted debris.
3/3/4		5	ML/ MH	Sandy silt, with clay, sand is medium- to fine-grained, firm, moist, very dark gray.
			CL/ CH	Silty clay, with up to 45% silt, trace fine-grained sand, firm, moist, dark olive gray.
2/3/4		10	SW	Well graded sand, with gravel to 3/8" diameter, sand is coarse- to fine-grained, trace silt, loose, moist, dark grayish brown.
2/2/4			MH	Silt, with clay, trace fine-grained sand, firm, very moist, very dark gray.
			CL/ CH	Silty clay, firm to stiff, moist, very dark gray, with fine-grained sand below 14'.
2/3/5		15		
				Silty clay, stiff, moist, very dark grayish brown and very dark gray, mottled, with root holes.
3/6/7			MH	Clayey silt, stiff, wet, dark gray.
			CL/ CH	Sandy clay, trace gravel to 1/8" diameter, sand is coarse- to fine-grained, stiff, moist, very dark gray.
1/6/7		20	SM	Silty sand, as below.

B O R I N G L O G

Project No. KEI-P90-1003		Boring & Casing Diameter 9" 2"		Logged By D.L.
Project Name Unocal San Leandro, Hesper.		Well Cover Elevation		Date Drilled 7/2/91
Boring No. MW5		Drilling Method	Hollow-stem Auger	Drilling Company EGI
Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
5/6/9			SM	Silty sand, up to 20% silt, sand is coarse- to fine-grained, with angular to rounded gravel to 5/8" diameter, medium dense, wet, very dark grayish brown.
		25	CL/ CH	Silty clay, stiff, moist, very dark grayish brown, locally with fissures and voids, caliche developed in voids.
		30		
		35		
		40		
				TOTAL DEPTH: 26'

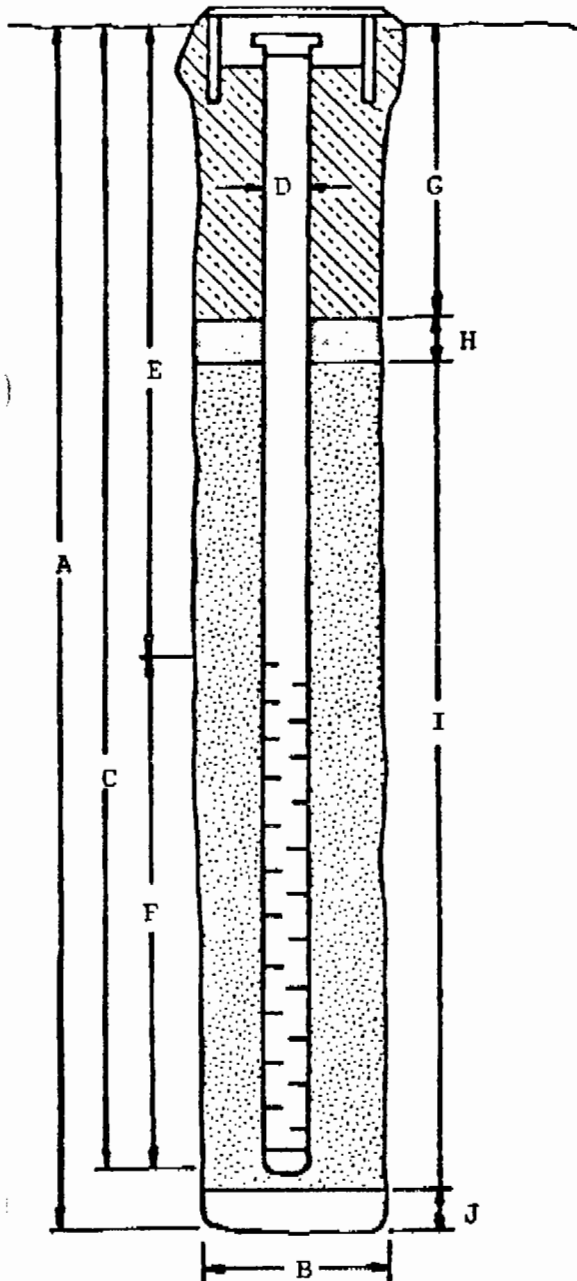
W E L L C O M P L E T I O N D I A G R A M

PROJECT NAME: Unocal San Leandro, Hesperian BORING/WELL NO. MW5

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: _____

Flush-mounted Well Cover



A. Total Depth: 26'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem
Auger

C. Casing Length: 26'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"
ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 16'

Perforation Type: Machined Slot
Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 18'
Pack Material: RMC Lonestar Sand

Size: #2/12

J. Bottom Seal: none

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal San Leandro, Hesper.	Well Cover Elevation	Date Drilled 7/2/91
Boring No. MW6	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		Asphalt pavement over silt, sand and gravel.
2/2/4		5	SM	Silty sand, sand is medium- to predominantly fine-grained, loose, moist, olive brown, homogenous?, possible fill?
		5	ML	Sandy silt, sand is fine-grained, firm, moist, dark brown, with trace organic matter.
4/9/3		10	SW	Well graded sand, with trace silt and gravel to 1/4" diameter, sand is coarse- to fine-grained, medium dense, moist, dark brown.
		10	ML/ MH	Silt, with clay, up to 10% fine-grained sand, firm, moist, olive brown.
3/5/7		15	CL/ CH	Silty clay, with sand, stiff, moist, very dark grayish brown.
		15		Clay, with silt, trace sand, stiff, moist, very dark grayish brown, with root holes.
4/6/7		18	ML/ MH	Clayey silt, stiff, very moist, very dark grayish brown.
		18	CL/ CH	Sandy clay, trace gravel to 1/4" diameter, sand is coarse- to fine-grained, stiff, moist, very dark grayish brown, with root holes to 20.5'.
4/6/	▽	20		

B O R I N G L O G

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal San Leandro, Hesper.	Well Cover Elevation	Date Drilled 7/2/91
Boring No. MW6	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
/6			SM	Silty sand, coarse- to fine-grained, up to 20% silt, trace clay, medium dense, wet, very dark grayish brown.
3/5/7		25	CL/ CH	Clay, with silt, trace sand, stiff, moist, very dark gray, with root holes and caliche, wet inside root holes.
		30		
		35		
		40		
				TOTAL DEPTH: 26'

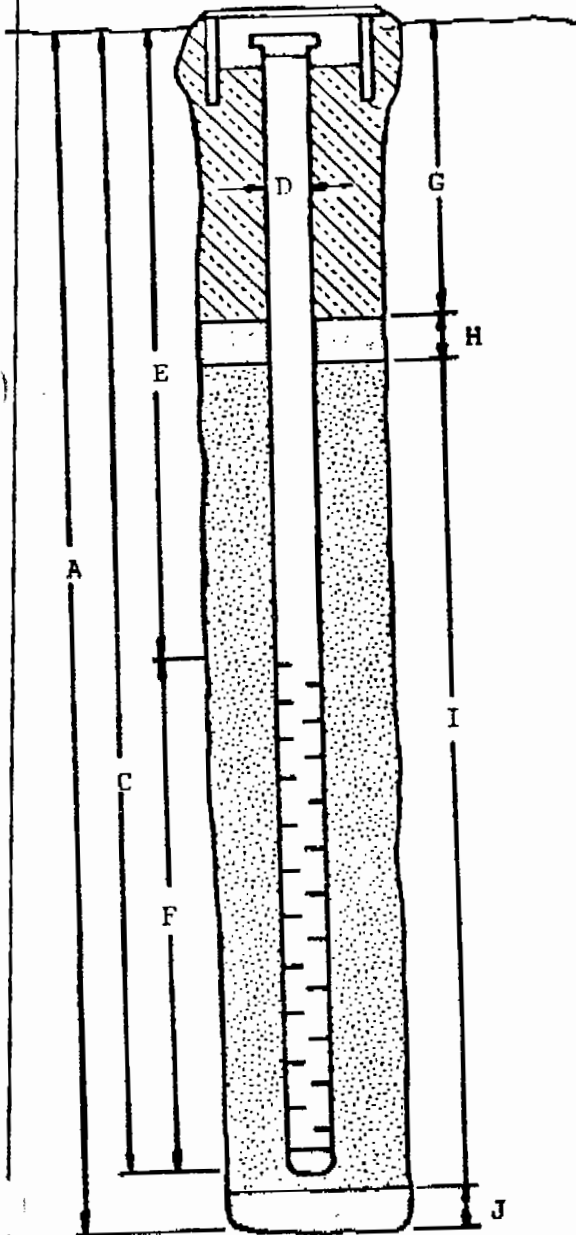
W E L L C O M P L E T I O N D I A G R A M

PROJECT NAME: Unocal San Leandro, Hesperian BORING/WELL NO. MW6

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: _____

Flush-mounted Well Cover



A. Total Depth: 26'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 26'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 16'

Machined Perforation Type: Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 18'

Pack Material: RMC Lonestar Sand

Size: #2/16

J. Bottom Seal: none

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: MW-7	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/17/06 COMPLETED: 1/17/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/17/06 COMPLETED: 1/17/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: CME-75	INITIAL DTW (ft): 10.5 11/20/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Hollow Stem Auger	STATIC DTW (ft):	WELL DEPTH (ft): 25.0
SAMPLING EQUIPMENT: Split Spoon	WELL CASING DIAMETER (in): 2	BOREHOLE DIAMETER (in): 8
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Air knife to five feet below ground surface							
1125		SP-SM	SAND WITH SILT AND CLAY; SP-SM; 5/1 10YR gray; fine-grained; loose; moist		1125 MW-7@ 6-6.5'	1	9 9 13	1.1	5	
1130		ML SP CL	SILT WITH SOME SAND; ML: 5/3 10YR brown; fine-grained; soft; moist; no odor SAND LITTLE SILT; SP: 5/2 10YR grayish brown; loose; wet SILTY CLAY; CL: 4/2 10YR dark grayish brown; soft; moist; no odor		1130 MW-7@ 10.5-11'	1.5	8 9 11	1.2	10	Neat Portland Cement with 5% bentonite powder Schedule 40 PVC casing
1135		CH	FAT CLAY LITTLE SILT; CH; 4/1 10YR dark gray; stiff; wet; no odor		1135 MW-7@ 15.5-16'	1.5	10 10 12	1.1	15	Bentonite Seal
1137		SP	SAND WITH TRACE SILT; SP; 5/4 10YR yellowish brown; fine-grained; medium dense; wet; no odor			0.5	11 12 14		20	#3 Sand
1140		CH	FAT CLAY WITH TRACE SILT; CH; 5/1 10YR gray; hard; wet; no odor		1140 MW-7@ 24-24.5'	0.5	10 11 14	1.0	25	0.020-inch factory slotted screen
			Hole terminated at 25 feet.							

GEO FORM 304 MW7MWTCSB248B37.GPJ SECOR INTL.GDT 2/0/06

PROJECT: Former 76 Service Station No. 7004 LOCATION: 15599 Hesperian Boulevard, San Leandro, California PROJECT NUMBER: 77CP.67004.06.0011	WELL / PROBEHOLE / BOREHOLE NO: <div style="text-align: center; font-size: 1.2em; font-weight: bold;">MW-8</div> PAGE 1 OF 1
DRILLING: STARTED 1/18/06 COMPLETED: 1/18/06 INSTALLATION: STARTED 1/18/06 COMPLETED: 1/18/06 DRILLING COMPANY: Cascade Drilling, Inc. DRILLING EQUIPMENT: CME-75 DRILLING METHOD: Hollow Stem Auger SAMPLING EQUIPMENT: Split Spoon	NORTHING (ft): EASTING (ft): LATITUDE: LONGITUDE: GROUND ELEV (ft): TOC ELEV (ft): INITIAL DTW (ft): 15 1/18/06 BOREHOLE DEPTH (ft): 25.0 STATIC DTW (ft): WELL DEPTH (ft): 25.0 WELL CASING DIAMETER (in): 2 BOREHOLE DIAMETER (in): 8 LOGGED BY: Jim Dowd CHECKED BY: Tom Potter



Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Air knife to five feet below ground surface							
0750	[Dotted pattern]	SP-SM	SAND WITH SILT; SP-SM; 5/2 10YR grayish brown; medium dense; moist	[Black bar]	0750 MW-8@ 5.5-6'	0.5	10 7 13	1.3	5	<p>Neal Portland Cement with 5% bentonite powder</p> <p>Schedule 40 PVC casing</p> <p>Bentonite Seal</p> <p>#3 Sand</p> <p>0.020-inch factory slotted screen</p>
0755	[Diagonal hatching]	CL-ML	SILTY CLAY; CL-ML; 4/4 10YR dark gray; soft; moist; no odor	[Black bar]	0755 MW-8@ 11-11.5'	1.5	9 10 12	0.5	10	
15	[Diagonal hatching]		LITTLE SAND; wet	[Black bar]		1	8 8 10		15	
0810	[Dotted pattern]	SP	SAND WITH SOME SILT; SP; 7/4 10YR pale brown; fine to medium-grained; loose; wet; no odor, very pale brown color	[Black bar]	0810 MW-8@ 24.5-25'	0.75	10 10 13		20	
25			Hole terminated at 25 feet.	[Black bar]		0.75	11 10 14	0.6	25	

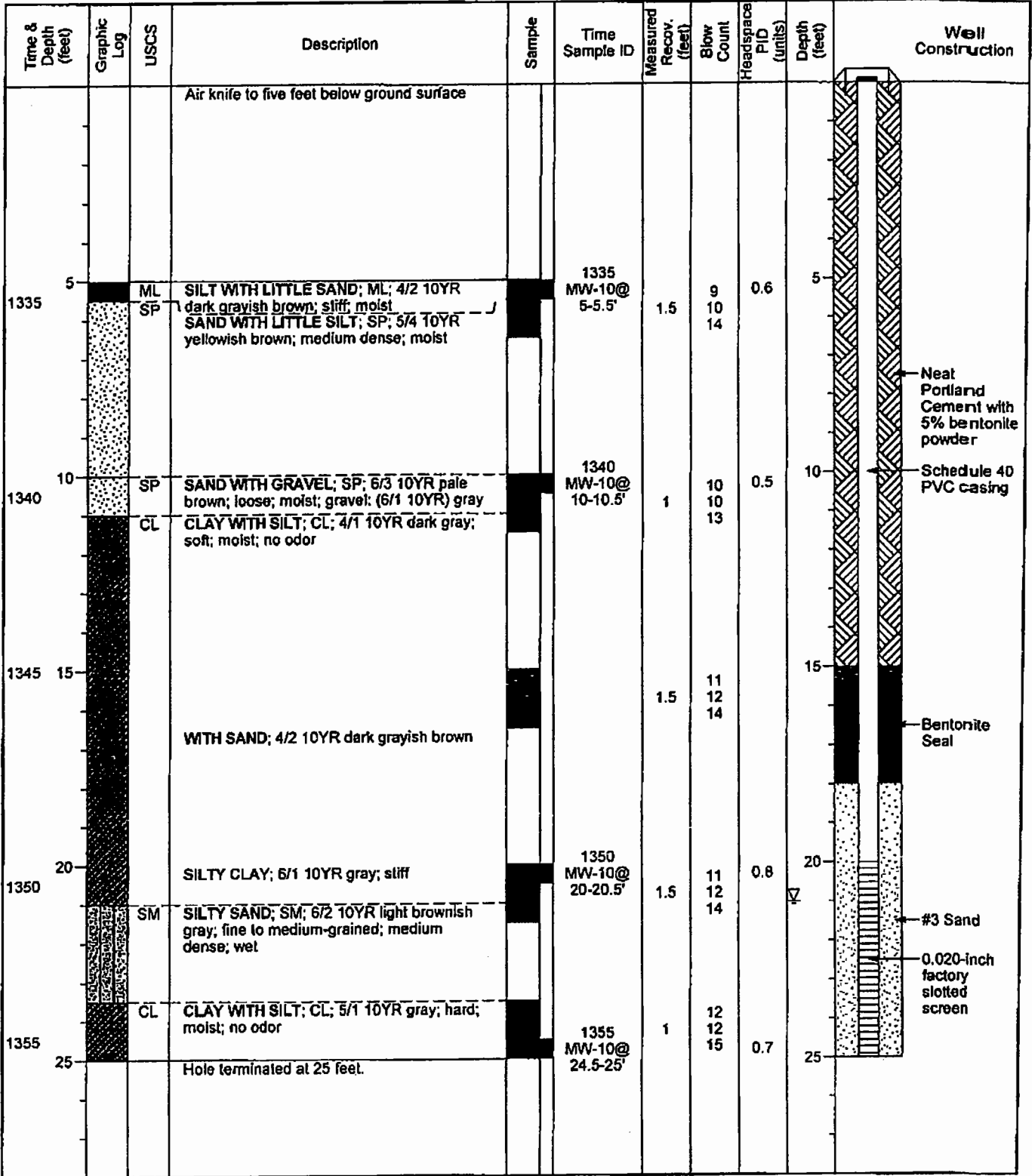
GEO FORM 304 MW7/MW10/SB2/SB37.GPJ SECOR INTL.GDT 2/2005

PROJECT: Former 78 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: MW-9	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/17/06 COMPLETED: 1/17/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/17/06 COMPLETED: 1/17/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: CME-75	INITIAL DTW (ft): 16 1/17/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Hollow Stem Auger	STATIC DTW (ft):	WELL DEPTH (ft): 25.0
SAMPLING EQUIPMENT: Split Spoon	WELL CASING DIAMETER (in): 2	BOREHOLE DIAMETER (in): 8
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace P/D (units)	Depth (feet)	Well Construction
			Air knife to five feet below ground surface							
1010		ML	CLAYEY SILT; ML; 5/1 10YR gray; stiff; dry; no odor; no staining		1010 MW-9@ 6.5-7'	1.5		1.5		Neat Portland Cement with 5% bentonite powder
1015					1015 MW-9@ 11-11.5'	1	9 10 14			Schedule 40 PVC casing
1020		SP CH	SAND WITH SOME SILT; SP; 4/2 10YR dark grayish brown; fine to medium-grained; medium dense; moist; no odor FAT CLAY; CH; 4/1 10YR dark gray; stiff; wet; no odor		1020 MW-9@ 15.5-16'	1.5	12 11 10	1.2		Bentonite Seal
1025		CL CL	SANDY LEAN CLAY; CL; 4/1 10YR dark gray; stiff; wet; no odor SILTY CLAY; CL; 4/2 10YR dark grayish brown; hard; moist; no odor			1.5	10 10 14			#3 Sand
1030		SP CL	SAND WITH SOME SILT; SP; 4/1 10YR dark gray; fine-grained; loose; wet SILTY CLAY WITH LITTLE SAND; CL; 5/1 10YR gray; soft; wet		1030 MW-9@ 24.5-25'	1.5	11 13 14	1.1		0.020-inch factory slotted screen
			Hole terminated at 25 feet.							

GEO FORM 304 MW/MW105B245B37.GPJ SECOR INTL.GDT 2/3/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: MW-10	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/17/06 COMPLETED: 1/17/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/17/06 COMPLETED: 1/17/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: CME-75	INITIAL DTW (ft): 21 1/17/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Hollow Stem Auger	STATIC DTW (ft):	WELL DEPTH (ft): 25.0
SAMPLING EQUIPMENT: Split Spoon	WELL CASING DIAMETER (in): 2	BOREHOLE DIAMETER (in): 8
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter



GEO FORM 304 MW/TA/MSB24/SB37.CPJ SECOR INTL.GOT. 2/3/08

BORING LOG

Project No. KEI-P90-1003	Boring & Casing Diameter 12" 6"	Logged By <i>JGG</i> D.L. <i>LEG 1633</i>
Project Name Unocal # 7004 15599 Hesperian Blvd, San Leandro	Well Cover Elevation N/A	Date Drilled 4-15-92
Boring No. RW1	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		Asphalt pavement over sand and gravel base.
				Clay, sand and gravel with cobbles to 8 inches in diameter, very dark grayish brown and black (fill).
			SM	Silty sand, sand is very fine to fine-grained, moist, loose, dark olive gray.
2/3/5		5	CL	Silty clay, moist, firm, dark greenish gray.
			MH	Silt with clay, estimated at 10-15% fine-grained sand, moist, stiff, dark olive gray.
			SW	Well graded sand, dry, loose, light olive brown.
3/4/5		10	SW/ ML	Well graded sand, moist, loose, dark olive gray with lenses of sandy silt to 1 inch thick. Silt is moist, firm, dark olive gray.
			ML	Silt with sand, trace clay, sand is very fine-grained, moist, firm, dark olive gray.
3/4/6			MH	Clayey silt, estimated at 10-15% sand, moist, stiff, black, grades to dark olive gray.
			CL	Silty clay, moist, stiff, very dark gray to black.
NO BLOW COUNT DATA - CONTINUOUSLY CORED	▽ —	15	MH	Clayey silt very moist to wet, stiff, black with molds and root holes.
			CL	Silty clay, trace fine-grained sand, moist, very stiff, dark olive gray and very dark gray, mottled.
				Clay with silt, moist, very stiff, very dark grayish brown and very dark gray, mottled.
		20	SM	Silty sand, estimated at 15-20% silt, sand is fine to medium grained, saturated, medium dense, olive and olive brown, mottled.

BORING LOG

Project No. KEI-P90-1003	Boring & Casing Diameter 12" 6"	Logged By <i>JGG</i> D.L. <i>LEG 1633</i>
Project Name Unocal #7004 15599 Hesperian Blvd, San Leandro	Well Cover Elevation N/A	Date Drilled 4-15-92
Boring No. RW1	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling

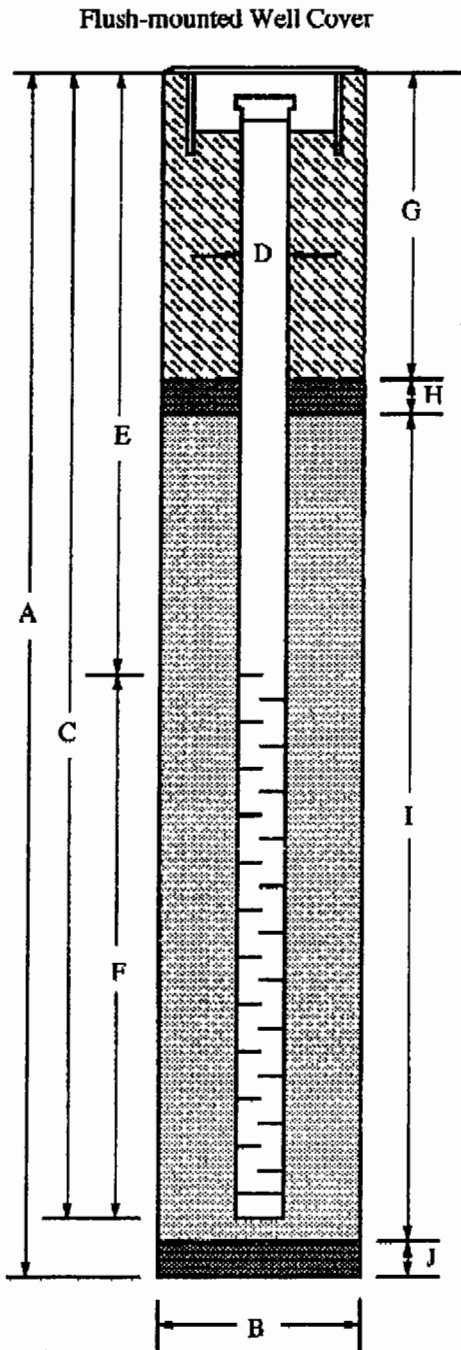
Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		25	SM	Silty sand as above.
			CH	Clay with trace silt and sand, locally trace caliche, moist, hard, very stiff, black.
			CL	Silty clay with root holes and organic matter, moist, stiff, olive gray.
Particle Size Analysis Sample			CH	Sandy silty clay, significant caliche development locally, moist, very stiff to hard, olive and olive brown, mottled.
		30	TOTAL DEPTH: 29.5'	
		35		
		40		

WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal #7004, 15599 Hesperian Blvd., San Leandro WELL NO. RW1

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: ACF-C & WCD #92151



- A. Total Depth : 27.5"
- B. Boring Diameter*: 12"
Drilling Method: Hollow Stem Auger
- C. Casing Length: 27.5'
Material: Schedule 40 PVC
- D. Casing Diameter: OD = 6.625
ID = 6.065
- E. Depth to Perforations: 12.5'
- F. Perforated Length: 15'
Perforation Type: Machined Slot
Perforation Size: 0.010"
- G. Surface Seal: 8.5'
Seal Material: Neat Cement
- H. Seal: 2'
Seal Material: Bentonite
- I. Filter Pack: 17'
Pack Material: Silica Resources Inc. Sand
Size: #2/12
- J. Bottom Seal: 2'
Seal Material: Bentonite

* Boring diameter can vary from 11 1/4" to 12" depending on bit wear.

Gettler-Ryan, Inc.

Log of Boring G-1

PROJECT: *Tosco (78) Service Station No. 7004*

LOCATION: *15599 Hesperian Blvd., San Leandro, CA*

GR PROJECT NO.: *140106.06*

SURFACE ELEVATION:

DATE STARTED: *09/20/02*

WL (ft. bgs): *16* DATE: *09/20/02* TIME: *8:00*

DATE FINISHED: *09/20/02*

WL (ft. bgs): DATE: TIME:

DRILLING METHOD: *2 in. Geoprobe - Direct Push*

TOTAL DEPTH: *20 feet*

DRILLING COMPANY: *Gregg Drilling*

GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PTD (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Asphalt and base rock.	
3					ML	SILT (ML) - dark gray (N4), moist, soft; 90% silt, 10% fine sand.	Boring backfilled with neat cement to ground surface.
6	0					SILT WITH SAND (ML) - dark brown (7.5YR 4/1), moist, medium stiff; 75-85% silt, 15-25% fine sand.	Hand augered to 5 feet bgs.
9		6-1 (S10)					
12					SP-SM	POORLY GRADED SAND WITH SILT (SP-SM) - dark brown (7.5YR 4/1), moist, dense; 90% fine sand, 10% silt.	
15	0	6-1 (S14)			ML	SILT (ML) - dark gray (N4), moist, medium stiff; 90% silt, 10% clay.	
					CL	CLAY (CL) - dark gray (N4), moist, medium stiff; 95% clay, 5% silt.	
					SP	POORLY GRADED SAND (SP) - dark gray (N4), wet, medium dense; 90% fine sand, 10% silt.	
18					CL	CLAY (CL) - dark gray (N4), wet, medium stiff; 100% clay.	
21						Bottom of boring at 20 feet bgs.	

Gettler-Ryan, Inc.

Log of Boring G-2

PROJECT: *Tosco (76) Service Station No. 7004*

LOCATION: *15599 Hesperian Blvd., San Leandro, CA*

GR PROJECT NO.: *140106.06*

SURFACE ELEVATION:

DATE STARTED: *09/20/02*

WL (ft. bgs): *15.5* DATE: *09/20/02* TIME: *8:20*

DATE FINISHED: *09/20/02*

WL (ft. bgs): DATE: TIME:

DRILLING METHOD: *2 in. Geoprobe - Direct Push*

TOTAL DEPTH: *20 feet*

DRILLING COMPANY: *Gregg Drilling*

GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Asphalt and base rock.	
3					ML	SILT (ML) - dark gray (2.5Y 4/1), moist, medium stiff; 90% silt, 10% fine sand.	Boring back filled with neat cement to ground surface.
6	0				SP	POORLY GRADED SAND (SP) - grayish brown (10YR 5/2), moist, medium dense; 95% fine sand, 5% silt.	Hand augered to 5 feet bgs.
9					ML	SILT WITH SAND (ML) - dark grayish brown (10YR 4/2), moist, medium stiff; 75-85% silt, 15-25% fine sand.	
12		G-2 (S10)					
15		G-2 (S14)					
17.1					CL	CLAY (CL) - dark greenish gray (5GY 3/1), moist, medium stiff; 95% clay, 5% silt.	
21						Bottom of boring at 20 feet bgs.	

Gettler-Ryan, Inc.

Log of Boring G-3

PROJECT: *Tosco (78) Service Station No. 7004*

LOCATION: *15599 Hesperian Blvd., San Leandro, CA*

GR PROJECT NO.: *140106.06*

SURFACE ELEVATION:

DATE STARTED: *09/20/02*

WL (ft. bgs): *15.5* DATE: *09/20/02* TIME: *8:55*

DATE FINISHED: *09/20/02*

WL (ft. bgs): DATE: TIME:

DRILLING METHOD: *2 in. Geoprobe - Direct Push*

TOTAL DEPTH: *20 feet*

DRILLING COMPANY: *Gregg Drilling*

GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
0		G-3 (S5)			ML	Asphalt and base rock. SILT (ML) - dark gray (2.5Y 4/1), moist, medium stiff; 85-90% silt, 10-15% fine sand.	Boring back filled with neat cement to ground surface.
6					SP-SM	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM) - grayish brown (10YR 5/2), moist, medium dense; 75% fine sand, 15% gravel, 10% silt.	
9					SW	WELL-GRADED SAND (SW) - grayish brown (10YR 5/2), moist, medium dense; 95% sand, 5% silt.	
10		G-3 (S10)			CL	CLAY (CL) - dark greenish gray (10Y 4/1), moist, medium stiff; 100% clay.	Hand augered to 5 feet bgs.
15		G-3 (S13.5)			SM	SILTY SAND (SM) - dark greenish gray (10Y 4/1), wet, loose; 80-85% sand, 15-20% silt.	
18					ML	SILT (ML) - dark greenish gray (10Y 4/1), moist, medium stiff; 90-95% silt, 5-10% clay.	
21						Bottom of boring at 20 feet bgs.	

Gettler-Ryan, Inc.

Log of Boring G-4

PROJECT: *Tosco (76) Service Station No. 7004*

LOCATION: *15509 Hesperian Blvd., San Leandro, CA*

GR PROJECT NO.: *140106.06*

SURFACE ELEVATION:

DATE STARTED: *09/20/02*

WL (ft. bgs): *15.5* DATE: *09/20/02* TIME: *9:30*

DATE FINISHED: *09/20/02*

WL (ft. bgs): DATE: TIME:

DRILLING METHOD: *2 in. Geoprobe - Direct Push*

TOTAL DEPTH: *20 feet*

DRILLING COMPANY: *Gregg Drilling*

GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Asphalt and base rock.	
3					ML	SILT (ML) - dark gray (2.5Y 4/1), moist, medium stiff; 85-90% silt, 10-15% fine sand.	Boring back filled with neat cement to ground surface.
6					SM	SILTY SAND WITH GRAVEL (SM) - dark brown (10YR 4/1), moist, medium dense; 70% sand, 15% fine gravel, 15% silt.	Hand augered to 5 feet bgs.
9					SP-SM	POORLY GRADED SAND WITH SILT (SP-SM) - dark brown (10YR 3/3), moist, medium dense; 90% fine sand, 10% silt.	
12		G-4 (S10)			ML	SILT (ML) - dark greenish gray (10GY 3/1), moist, stiff; 95% silt, 5% clay.	
15		G-4 (S13.5)				∇ Becomes 90% silt, 10% clay.	
18					CL	CLAY (CL) - dark greenish gray (10GY 3/1), wet, medium stiff; 90% clay, 10% silt.	
21						Bottom of boring at 20 feet bgs.	

Gettler-Ryan, Inc.

Log of Boring G-5

PROJECT: *Tosco (76) Service Station No. 7004*

LOCATION: *15599 Hesperian Blvd., San Leandro, CA*

GR PROJECT NO.: *140106.06*

SURFACE ELEVATION:

DATE STARTED: *09/20/02*

WL (ft. bgs): *15.0* DATE: *09/20/02* TIME: *12:20*

DATE FINISHED: *09/20/02*

WL (ft. bgs): DATE: TIME:

DRILLING METHOD: *2 in. Geoprobe - Direct Push*






TOTAL DEPTH: *20 feet*

DRILLING COMPANY: *Gregg Drilling*

GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Concrete - 5 inches thick.	
3	1.7				SM	SILTY SAND (SM) - dark brown (7.5YR 3/2), moist, medium dense; 80% fine to medium sand, 20% silt.	Boring back filled with neat cement to ground surface.
					ML	SILT (ML) - dark gray (2.5Y 4/1), moist, medium stiff; 85-90% silt, 10-15% fine sand.	
6	1.9	G-5 (S5)				Becomes 90-95% silt, 5-10% fine sand.	Hand augered to 5 feet bgs.
12	1.0	G-5 (S11)					
15		G-5 (S13)			CL	CLAY (CL) - dark gray (2.5Y 4/1), moist, medium stiff; 95% clay, 5% silt.	
21						Bottom of boring at 20 feet bgs.	



Logged By: Dan Fisher	Dates Drilled: 8/23/05 8/23/05	Drilling Contractor P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-1	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 11 First Water ▼ 11.5 Static Water	Total Depth (ft.): 19.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name
 Neat cement backfill ▽ ▼			Hand Cleared to 5'			
	5		 POORLY-GRADED SAND WITH SILT (SP-SM): Brownish yellow (10YR 6/8), slightly loose, poorly graded, moist to wet			
	10		 Fat clay (CH): Dark olive Brown (2.5Y 3/3), moist, high plasticity			SB-1 @ 12'
	15		 SANDY CLAY (CL): Dark olive brown (2.5Y 3/3), moist, high plasticity			
	20		 FAT CLAY (CH): Dark olive brown (2.5Y 3/3)			
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)



Logged By: Dan Fisher	Dates Drilled: 8/26/05 8/26/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-2	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 19.5 First Water ▽ 12 Static Water	Total Depth (ft.): 22.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name
			Hand cleared to 5'			
	5		POORLY-GRADED SAND (SP): Brownish yellow (10YR 6/8), medium-fine grain, poorly graded, moist, loose			
	10		FAT CLAY (CH): Very dark grayish brown (2.5Y 3/2), firm to stiff, moist			SB-2 @ 15'
	20		POORLY-GRADED SAND (SP): fine grain, poorly graded, saturated 0/100/0			SB-2 @ 22'
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05


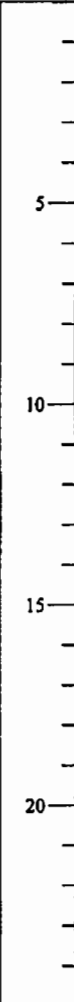

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)



Logged By: Dan Fisher		Dates Drilled: 8/22/05 8/22/05		Drilling Contractor: P.S.I.		Project Name: Former 76 Service Station No. 7004 San Leandro, CA		Method/Equipment: Direct Push Geoprobe		Boring Number: SB-3	
		Boring Diam.(in.):		Surface Elev.(ft.):		Groundwater Depth (ft.): ▽ 10 First Water ▽ 13 Static Water		Total Depth (ft.): 19.0		Drive wt.(lbs.):	
Well Construction		Depth, (ft.)		Sample Recovery		Description					Name
 Neat cement backfill ▽ ▽		 5 10 15 20				Hand cleared to 5'					SB-3@ SB-3@10
						POORLY-GRADED SAND WITH SILT (SP-SM):, poorly graded, moist					
						FAT CLAY WITH SAND (CH):, moist, saturated (0, 15, 85)					
						FAT CLAY WITH SAND (CL): Black (2.5Y 2.5/1) moist, black, stiff					
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>											

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05


Log of Boring

GINTE#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)



Logged By: Dan Fisher	Dates Drilled: 8/22/05 8/22/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-4	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 12.5 First Water ▽ 13.5 Static Water	Total Depth (ft.): 25.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name
 Neat cement backfill ▽ ▽			Hand cleared to 5'			
	5		POORLY-GRADED SAND WITH SILT (SP-SM): Brownish yellow (10YR 6/8), poorly graded, moist to saturated Same as above: Dark yellowish brown (10YR 3/4)			
	10					
	15		FAT CLAY (CH): Dark olive brown (2.5Y 3/3), moist, stiff, high plasticity 2.5Y 3/3			SB-4@12
	20		SILTY SAND (SM): Olive Brown (2.5Y 4/4), silty sand, poorly graded, moist 2.5Y 4/4 FAT CLAY (CH): high plasticity			SB-4@19
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05


Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)



Logged By: Dan Fisher	Dates Drilled: 8/22/05 8/22/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-5	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 12 First Water ▽ 14 Static Water	Total Depth (ft.): 25.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description		Name	
 Neat cement backfill			Hand cleared to five feet			
	5		POORLY-GRADED SAND WITH SILT (SP-SM): Brownish yellow (10YR 6/8), poorly graded, moist			
	10					
	15		FAT CLAY WITH SAND (CH): Black (2.5Y 2.5/1) moist, firm FAT CLAY (CH): Dark Olive Brown (2.35Y 3/3), stiff, high plasticity 2.5Y 3/3		SB-5@12	
	20		POORLY-GRADED SAND (SP): Light olive brown (2.5Y 5/4) poorly graded, fairly loose, saturated FAT CLAY (CH): Dark olive brown (2.35Y3/3), stiff, high plasticity		SB-5@19	
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring









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LOG OF BOREHOLE

Figure

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SECOR

Logged By: Dan Fisher		Dates Drilled: 8/23/05 8/23/05		Drilling Contractor: P.S.I.		Project Name: Former 76 Service Station No. 7004 San Leandro, CA		Method/Equipment: Direct Push Geoprobe		Boring Number: SB-6	
		Boring Diam.(in.):		Surface Elev.(ft.):		Groundwater Depth (ft.): 12.5 Static Water		Total Depth (ft.): 19.0		Drive wt.(lbs.):	
Well Construction		Depth, (ft.)		Sample Recovery		Description					Name
 Neat cement backfill						Hand cleared to 5'					
						 POORLY-GRADED SAND WITH SILT (SP-SM): Dark Gray (5Y 4/1), sand to silty sand, poorly graded, dry to moist,					
						 POORLY-GRADED SAND WITH GRAVEL (SP): sand with gravel, angular to 3/4" diameter, dry to moist, loose					
						 FAT CLAY (CH): Dark olive brown (2.5Y 3/3), moist, stiff, high plasticity					
						 SILTY SAND (SP): Olive brown (2.5Y 4/4), poorly graded, moist 2.5Y 4/4					
		20				 FAT CLAY (CH): high plasticity					SB-6@13
											SB-6@19

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

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LOG OF BOREHOLE

Figure

(sheet 1 of 1)



SECOR

Logged By: Dan Fisher	Dates Drilled: 8/23/05 8/23/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-7		
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.): 22.0	Drive wt.(lbs.):	Drop Dist.(in.):	
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name	PID
Neat cement backfill			Hand clear to 5'				
	5		SILTY SAND (SM): poorly graded, moist to very moist, 10YR 6/8				
	10		FAT CLAY WITH SAND (CH): Black (10YR 2/1), stiff 10YR 2/1			SB-7@11	10
	15		FAT CLAY (CH): Dark olive brown (2.5 3/3), stiff, high plasticity				
	20		SILTY SAND (SM): medium-fine grain, poorly graded, moist			SB-7@19	20
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>							

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Log of Boring

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LOG OF BOREHOLE

Figure

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SECOR

Logged By: Dan Fisher	Dates Drilled: 8/23/05 8/23/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-8	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.): 22.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description		Name	PID
Neat cement backfill			Hand cleared to 5'			
	5		POORLY-GRADED SAND WITH SILT (SP-SM): Brownish yellow (10YR 6/8), poorly graded, dry to moist, loose			
	10					
	15		FAT CLAY WITH SAND (CH): Very dark Gray (2.5Y 3/1), stiff, moderate plasticity, very moist, odors noted		SB-8@13	70
	15		FAT CLAY (CH): Very dark gray (10YR 3/1), stiff, high plasticity, odors noted		SB-8@15	80
20			CLAYEY SAND (SC):, poorly graded, very moist		SB-8@22	
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05





Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

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Logged By: Dan Fisher	Dates Drilled: 8/23/05 8/23/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-9	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 13 First Water ▽ 13.5 Static Water	Total Depth (ft.): 19.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description		Name	
 Neat cement backfill ▽ ▽	5		Hand cleared to 5'			
	10		poor recovery fill material dry			
	15		FAT CLAY (CH): Very dark grayish brown (2.5Y 3/2), moist, moderate to high plasticity		SB-9@13	
	20		POORLY-GRADED SAND (SP): Light olive brown (2.5Y 5/4), medium grain, poorly graded, moist		SB-9@19	
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

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Log of Boring

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LOG OF BOREHOLE

Figure

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Logged By: Dan Fisher	Dates Drilled: 8/23/05 8/24/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-10		
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ∇ 14.5 First Water	Total Depth (ft.): 28.0	Drive wt.(lbs.):	Drop Dist.(in.):	
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name	PID
 Neat cement backfill ∇	5		Hand Cleared to 5'				
	10		Poor recovery - Fill				
	15		Highly saturated fill				
	25		FAT CLAY (CH): Light olive brown (2.5Y 5/4), saturated, very stiff				
						SB-10@28 30	
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>							

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LOG OF BOREHOLE

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SECOR

Logged By: Dan Fisher	Dates Drilled: 8/24/05 8/24/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-11	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 15 First Water ▽ 14.5 Static Water	Total Depth (ft.): 19.0	Drive wt.(lbs.):	Drop Dist.(in.):

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
			Hand cleared to 5'	
Neat cement backfill	5		POORLY-GRADED SAND WITH SILT(SP-SM): Dark Brown (10YR 3.3), poorly graded, moist, slightly firm	
	10			
	15		FAT CLAY (CH): very dark gray to Very dark grayish brown (2.5Y 3/1 to 10YR 3/2), saturated to moist, stiff, high plasticity	SB-11@
	20			SB-11@

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

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Log of Boring

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LOG OF BOREHOLE

Figure

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Logged By: Dan Fisher	Dates Drilled: 8/24/05 8/24/05	Drilling Contractor: P.S.I	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-12	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 12 First Water ▽ 14.5 Static Water	Total Depth (ft.): 19.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name
Neat cement backfill			Hand Cleared to 5'			
	5		CLAYEY SAND WITH GRAVEL (SC): Very dark brown (10YR 2/2), moist, firm, angular up to 3/4" gravel, (15, 65, 30)			
	10		SILTY SAND (SM): Dark brown (10YR 3/3), poorly graded, moist, loose to firm (0, 85, 15)			
	15		Saturated LEAN CLAY (CL): Black (10YR 2/1), moist, stiff, slightly plastic, very dark gray to black, streaks of oxidation, trace sand, (0, 5, 95)			SB-12@ 2
			FAT CLAY (CH): Very dark brown (10YR 2/2), trace sand, stiff, plastic, moist to very moist, dark brown, streaks of oxidation, (0, 5, 95)			
			FAT CLAY (CH): Very dark grayish brown (2.5Y 3/2), stiff, very plastic, dark grey, (0, 0, 100)			
			Same as above: Color change dark brown (2.5Y 4/3)			
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

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LOG OF BOREHOLE

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Logged By: Dan Fisher	Dates Drilled: 8/24/05 8/24/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-13	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ∇ 12 First Water ∇ 14.5 Static Water	Total Depth (ft.): 19.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name
Neat cement backfill			Hand Cleared to 5'			
	5		SILTY SAND (SM): Dark brown (10YR 3/3) , medium-fine grain, moist, firm, poorly graded, (0, 75, 25)			
			POORLY-GRADED SAND WITH SILT (SP-SM): Dark yellowish brown (10YR 4/6), medium grain, poorly graded, dry to moist, loose, (0, 90, 10)			
	10		SILTY SAND (SM): Fine grain, poorly graded, very moist to saturated, firm			SB-13@ 2
			LEAN CLAY (CL): Grayish Brown (10YR 5/2), moist, stiff, slightly plastic, trace sand, streaks of oxidation (0, 5, 95)			
	15		FAT CLAY (CH): Very dark grayish brown (2.5Y 3/2), stiff, very plastic, moist (0, 0, 100) Same as above: Color change to Olive brown (2.5Y 4/3)			SB-13@ 5
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05





Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

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Logged By: Dan Fisher	Dates Drilled: 8/24/05 8/24/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-14	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ∇ 12.5 First Water	Total Depth (ft.): 19.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth (ft.)	Sample Recovery	Description		Name	PID
 Neat cement backfill ∇	5		Hand cleared to 5'			
			 POORLY-GRADED SAND WITH SILT (SP-SM): Dark brown (10YR 3/3), poorly graded, dry to moist, loose			
			Saturated			
	15		 FAT CLAY (CH): Very dark grayish brown (10YR 3/2), moist, stiff, high plasticity		SB-14@	32.4
20		 CLAYEY SAND (SC): Dark olive Brown (2.5Y 3/3), poorly graded, very moist, loose		SB-14@	92.3	
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

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Log of Boring







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LOG OF BOREHOLE

Figure

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SECOR

Logged By: Dan Fisher	Dates Drilled: 8/24/05 8/24/05	Drilling Contractor P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA		Method/Equipment: Direct Push Geoprobe	Boring Number: SB-15		
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 12 First Water		Total Depth (ft.): 19.0	Drive wt.(lbs.):	Drop Dist.(in.):	
Well Construction	Depth, (ft.)	Sample Recovery	Description				Name	PID
 Neat cement backfill ▽			Hand cleared to 5'					
	5		 POORLY-GRADED SAND (SP): Dark Brown (10YR 3/3), poorly graded, dry, loose to slightly firm, (0, 100, 0)					
			 SILTY SAND (SM)					
	10		 SAND WITH GRAVEL (SP): angular <1/8" diameter  SILTY SAND (SM): Dark brown (10YR 3/3), poorly graded, dry to saturated, (0, 85, 15)					
	15		 FAT CLAY (CH): Very dark grayish brown, moist, stiff, high plasticity, (0, 0, 100)				SB-15@	130.8
20							SB-15@	191.5
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>								

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring






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LOG OF BOREHOLE

Figure

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SECOR

Logged By: Dan Fisher	Dates Drilled: 8/24/05 8/24/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-16	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ∇ 11.5 First Water ▼ 15 Static Water	Total Depth (ft.): 22.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name
 Neat cement backfill ∇ ▼			Hand cleared to 5'			
	5		 POORLY-GRADED SAND WITH SILT (SP-SM): Dark brown (10YR 3/3), moist, loose, poorly graded, medium-fine grain			
	10		Saturated			
	15		 SANDY FAT CLAY (CL): Firm, moist			SB-16@12
	15		 FAT CLAY (CH): Dark olive brown (2.5Y 3/3), moist, stiff, high plasticity			
20			 POORLY-GRADED SAND (SP): Olive brown (2.5Y 4/3), saturated, poorly graded, coarse grain, (0, 100, 0)			SB-16@22
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

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Figure

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Logged By: Dan Fisher	Dates Drilled: 8/25/05 8/25/05	Drilling Contractor P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-17	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 12 First Water ▽ 17.5 Static Water	Total Depth (ft.): 22.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description		Name	PID
			Hand cleared to 5'			
	5		SILTY SAND (SM): Dark yellowish brown (10YR 4/4), poorly graded, moist, loose, (0, 85, 15) Same as above: Color change to Dark grayish brown (2.5Y 4/2)			
	10		CLAYEY SAND (SC): saturated		SB-17@	16.0
	15		LEAN CLAY WITH SAND (CL): Black (10YR 2/1), moist, stiff, slightly plastic, very dark			
	20		FAT CLAY (CH): Very dark gray (2.5Y 3/1 to 10YR 3/1), moist, stiff, high plasticity, (0, 0, 100)			
			POORLY-GRADED SAND (SP): Dark grayish brown (2.5Y 4/2), medium grain, poorly graded, saturated, loose, (0, 100, 0)			
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
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Figure

(sheet 1 of 1)



Logged By: Dan Fisher	Dates Drilled: 8/25/05 8/25/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-18	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.): 22.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description		Name	PID
Neat cement backfill			Hand cleared to 5'			
	5		POORLY-GRADED SAND WITH SILT (SP-SM): Dark yellowish brown to Olive brown (10YR 4/4 to 2.5Y 4/2), moist to very moist, poorly graded			
			LEAN CLAY WITH SAND (CL): Black (10YR 2/1), stiff		SB18-13	2.3
	15		FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist-very moist, stiff, high plasticity			
	20		POORLY GRADED SAND (SP): Dark grayish brown (2.5Y 4/2), moist-saturated, poorly graded, loose		SB18-22	0.7
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GIN76#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)



Logged By: Dan Fisher		Dates Drilled: 8/25/05 8/25/05		Drilling Contractor: P.S.I.		Project Name: Former 76 Service Station No. 7004 San Leandro, CA		Method/Equipment: Direct Push Geoprobe		Boring Number: SB-19		
		Boring Diam.(in.):		Surface Elev.(ft.):		Groundwater Depth (ft.): ∇ 12 First Water		Total Depth (ft.): 22.0		Drive wt.(lbs.):		
Well Construction		Depth, (ft.)		Sample Recovery		Description					Name	PID
Neat cement backfill		5		∇		Hand cleared to 5'						
						SILTY SAND (SM): Dark Brown (10YR 3/3), poorly-graded, slightly stiff, moist, (0, 70, 30)						
						POORLY-GRADED SAND (SP): Dark yellowish brown (10YR 4/4), poorly graded, loose, (0, 100, 0)						
						POORLY-GRADED SAND WITH CLAY (SP-SC): Dark grayish brown (2.5Y 4/2), moist to saturated, poorly graded						
						LEAN CLAY WITH SAND (CL): Black (10YR 2/1), stiff, slightly plastic					SB-19@	3 5.3
						FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist-very moist, stiff, high plasticity						
		10										
		15										
		20										
						POORLY-GRADED SAND (SP): Dark grayish brown (2.5Y 4/2), medium grain, very moist					SB-19@	22

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05







Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)



Logged By: Dan Fisher		Dates Drilled: 8/25/05 8/25/05		Drilling Contractor: P.S.I.		Project Name: Former 76 Service Station No. 7004 San Leandro, CA		Method/Equipment: Direct Push Geoprobe		Boring Number: SB-20	
		Boring Diam.(in.):		Surface Elev.(ft.):		Groundwater Depth (ft.): ▽ 11.5 First Water		Total Depth (ft.): 22.0		Drive wt.(lbs.):	
Well Construction		Depth, (ft.)	Sample Recovery	Description						Name	PID
 Neat cement backfill ▽		5		Hand cleared to 5'							
		10		 POORLY-GRADED SAND WITH SILT (SP-SM): Dark Brown (10YR 3/3), loose, poorly graded, moist							
		11.5		Saturated						SB-20@	11.4
		13		 LEAN CLAY WITH SAND (CL): Black (10YR 2/1), stiff							
		14		 CLAYEY SAND (SC): Dark gray (2.5Y 4/1), poorly graded, saturated, loose							
		15		 FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist, stiff, high plasticity, extremely strong odors							
		20		 POORLY-GRADED SAND (SP): Dark grayish brown (2.5Y 4/2), poorly graded, saturated, loose						SB-20@	2200+
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>											

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05







Log of Boring

GIN76#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)



Logged By: Dan Fisher	Dates Drilled: 8/26/05 8/26/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-21	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 21 First Water ▽ 18 Static Water	Total Depth (ft.): 22.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description			Name
 Neat cement backfill			Hand cleared to 5'			
	5		 SILTY SAND (SM): poorly graded, loose, moist 10YR 3/3			
	10		 CLAYEY SAND (SC): Very dark grayish brown (10YR 3/2), very moist, streaks of oxidation			SB-21@ 2
	15		 CLAY WITH SAND (CL): Black (2.5Y 2.5/1), firm, streaks of oxidation			
	20		 FAT CLAY (CH): Very dark gray (2.5Y 3/1) highly plastic fat clay, moist			
				 SILTY SAND (SM): Dark grayish brown (2.5Y 4/2), poorly graded, saturated		
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						





Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure



Logged By: Dan Fisher	Dates Drilled: 8/26/05 8/26/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-22	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): 12 First Water	Total Depth (ft.): 19.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description		Name	
 Neat cement backfill 			Hand cleared to 5'			
	5		POORLY-GRADED SAND WITH SILT (SP-SM): Very dark grayish brown (2.5Y 3/2), poorly graded, moist Strong odor Saturation		SB-22@ 1 SB-22@ 2	
	15		FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist to very moist, stiff Same as above: High plasticity		SB-22@ 5	
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05


Log of Boring

GIN76#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)



Logged By: Dan Fisher	Dates Drilled: 8/26/05 8/26/05	Drilling Contractor: P.S.I.	Project Name: Former 76 Service Station No. 7004 San Leandro, CA	Method/Equipment: Direct Push Geoprobe	Boring Number: SB-23	
	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.): ▽ 12.5 First Water ▽ 17 Static Water	Total Depth (ft.): 22.0	Drive wt.(lbs.):	Drop Dist.(in.):
Well Construction	Depth, (ft.)	Sample Recovery	Description		Name	PID
 Neat cement backfill			Hand cleared to 5'			
	5		POORLY-GRADED SAND WITH SILT (SP-SM): Dark brown (10YR 3/3), firm to loose, moist, poorly graded			
	10		Strong odor		SB-23@	015.8
	15		Saturated			
	15		LEAN CLAY WITH SAND (CL): Black (10YR 2/1), firm, slightly plastic		SB-23@	3
	15		FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist, stiff, high plasticity			
	20		SILTY SAND (SM): Dark grayish brown (2.5Y 4/2), moist, poorly graded		SB-23@	22
<p>The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.</p>						

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

PROJECT: Former 76 Service Station No. 7004
 LOCATION: 15599 Hesperian Boulevard, San Leandro, California
 PROJECT NUMBER: 77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO:

SB24 PAGE 1 OF 1



DRILLING: STARTED 1/20/06 COMPLETED 1/20/06
 INSTALLATION: STARTED 1/20/06 COMPLETED 1/20/06
 DRILLING COMPANY: Cascade Drilling, Inc.
 DRILLING EQUIPMENT: Geoprobe
 DRILLING METHOD: Direct Push
 SAMPLING EQUIPMENT: Microprobe bore barrels

NORTHING (ft):
 LATITUDE:
 GROUND ELEV (ft):
 INITIAL DTW (ft): 11 1/20/06
 STATIC DTW (ft): NE
 WELL CASING DIAMETER (in): —
 LOGGED BY: Jim Dowd

EASTING (ft):
 LONGITUDE:
 TOC ELEV (ft):
 BOREHOLE DEPTH (ft): 15.0
 WELL DEPTH (ft): —
 BOREHOLE DIAMETER (in): 2
 CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
1010		CL-ML	SILTY CLAY SOME GRAVEL ; CL-ML; 5/2, 10YR pale grayish brown; soft; moist; no odor		1010 SB24@ 2-2.5'	2.5		0.6		Neat Portland Cement with 5% bentonite powder
		SC	CLAYEY SAND ; SC; 3/2, 10YR very dark grayish brown; loose; moist; no odor							
1015		ML	CLAYEY SILT ; ML; 4/1, 5Y dark gray; soft; moist; slight petroleum odor		1015 SB24@ 5-5.5'	3		1.0	5	
		SP	SAND ; SP; 3/2, 5Y dark greenish gray; loose; saturated; slight petroleum odor		SB24@ 7-7.5'			0.6		
		ML	SILTY CLAY ; ML; 3/2, 5Y dark greenish gray; soft; saturated; slight petroleum odor							
1020		ML	SILT ; ML; 3/1, 5Y very dark gray; stiff; moist; slight petroleum odor		1020 SB24@ 10-10.5'				10	
		SP	SAND ; SP; 3/1, 5Y very dark gray; dense; moist; strong petroleum odor; iron oxide staining		SB24@ 12-12.5'	4				
15			14 - 15' Hole terminated at 15 feet.						15	

PROJECT: Former 76 Service Station No. 7004
 LOCATION: 15599 Hesperian Boulevard, San Leandro, California
 PROJECT NUMBER: 77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO:
SB25 PAGE 1 OF 1



DRILLING: STARTED 1/20/06 COMPLETED: 1/20/06
 INSTALLATION: STARTED 1/20/06 COMPLETED: 1/20/06
 DRILLING COMPANY: Cascade Drilling, Inc.
 DRILLING EQUIPMENT: Geoprobe
 DRILLING METHOD: Direct Push
 SAMPLING EQUIPMENT: Microprobe bore barrels

NORTHING (ft): EASTING (ft):
 LATITUDE: LONGITUDE:
 GROUND ELEV (ft): TOC ELEV (ft):
 INITIAL DTW (ft): 12 1/20/06 BOREHOLE DEPTH (ft): 15.0
 STATIC DTW (ft): WELL DEPTH (ft):
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): 2
 LOGGED BY: Jim Dowd CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace P/D (units)	Depth (feet)	Borehole Backfill
		CL-ML	SILTY CLAY SOME GRAVEL; CL-ML; 5/2, 10YR grayish brown; soft; wet; no odor 1 - 5'			1				
0950		SP	SAND; SP; 4/4, 10YR dark yellowish brown; loose to medium dense; moist; no odor 6 - 10'		0950 SB25@ 5-5.5'	1		0.1	5	Neat Portland Cement with 5% bentonite powder
0955		CL	SILTY CLAY; CL; 5/3, 10YR brown; soft; wet; no odor		0955 SB25@ 10-10.5'			0.2	10	
		SC	CLAYEY SAND; SC; 5/3, 10YR brown; loose; wet; no odor		SB25@ 12-12.5'	3.5			12.5	
		SP	SAND; SP; 3/1, 5Y very dark gray; loose to medium dense; wet; strong petroleum odor						15	
15			Hole terminated at 15 feet.							

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB26	PAGE 1 OF 1	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California			
PROJECT NUMBER: 77CP.67004.06.0011			
DRILLING: STARTED 1/20/06 COMPLETED: 1/20/06	NORTHING (ft):	EASTING (ft):	
INSTALLATION: STARTED 1/20/06 COMPLETED: 1/20/06	LATITUDE:	LONGITUDE:	
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):	
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 7.5 1/20/06	BOREHOLE DEPTH (ft): 15.0	
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): ---	
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): ---	BOREHOLE DIAMETER (in): 2	
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter	

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspaces PID (units)	Depth (feet)	Borehole Backfill
5		CL-ML	SILTY CLAY SOME GRAVEL; CL-ML; 5/2, 10YR pale grayish brown; soft; moist; no odor			1				
1040		SC	CLAYEY SILT SOME SAND SOME GRAVEL; SC; 5/3, 10YR brown; hard to medium stiff; dry; no odor		1040 SB26@ 5-5.5'			0.3	5	Neat Portland Cement with 5% bentonite powder
			Wet; no odor		SB26@ 7-7.5'	3		0.6		
1050			Moist; no odor Very loose; wet; no odor		1050 SB26@ 10-10.5'			0.6	10	
			GRAVEL; moist; no odor		SB26@ 12-12.5'	3.5		0.4		
15			Hole terminated at 15 feet.						15	
20									20	
25									25	

GEO FORM 304 M177MM\05B24SB07.GPJ SECOR INTL.GDT 2/3/06

PROJECT: Former 76 Service Station No. 7004
LOCATION: 15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER: 77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO: SB27 PAGE 1 OF 1

DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06
INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06
DRILLING COMPANY: Cascade Drilling, Inc.
DRILLING EQUIPMENT: Geoprobe
DRILLING METHOD: Direct Push
SAMPLING EQUIPMENT: Microprobe bore barrels

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): 13 1/19/06
STATIC DTW (ft):
WELL CASING DIAMETER (in): —

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): 15.0
WELL DEPTH (ft): —
BOREHOLE DIAMETER (in): 2
CHECKED BY: Tom Potter



SECOR

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
		CL-ML	SILTY CLAY SOME GRAVEL; CL-ML; 5/2, 10YR grayish brown; soft; wet; no odor			1				
5		SP	SAND; SP; 4/4, 10YR dark yellowish brown; loose; wet; no odor		1355 SB27@ 5-5.5'			0.2	5	Neat Portland Cement with 5% bentonite powder
1355			Brown		SB27@ 7-7.5'	3		0.3		
10		SC	CLAYEY SAND; SC; 4/3, 10YR brown; loose; moist; no odor		1410 SB27@ 10-10.5'			0.3	10	
1410		SP	SAND; SP; 4/6, 10YR dark yellowish brown; loose; moist; no odor		SB27@ 12-12.5'	5		1.3		
15		SP	SAND; SP; 3/1, 5Y very dark gray; loose; moist; no odor							
		ML	SILTY CLAY; ML; 3/1, 5Y very dark gray; soft; moist; strong petroleum odor		SB27@ 14.5-15'			2.0	15	
			Hole terminated at 15 feet.							
20									20	
25									25	

GEO FORM 304 MVTW10SB24SB27.GPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB28	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/20/06 COMPLETED: 1/20/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/20/06 COMPLETED: 1/20/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 6.5 1/20/06	BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): ---
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): ---	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		CL-ML	SILTY CLAY; CL-ML; 5/2 10YR grayish brown; soft; moist; no odor			2				
		SM	SILTY SAND; SM; 3/2 5Y dark olive gray; fine-grained; loose; moist; slight odor							
1150		SW	SAND; SW; 3/2 5Y dark olive gray; fine to coarse-grained; loose; moist; slight odor		1150 SB28@ 5-5.5'			0.2	5	Neat Portland Cement with 5% bentonite powder
		CH	FAT CLAY; CH; 3/1 5Y very dark gray; stiff; moist; slight odor			3				
		SW-SM	GRAVELLY SAND; SW-SM; 3/2 5Y dark olive gray; very loose; wet; slight odor		SB28@ 7-7.5'			1.2		
		ML	SAND WITH SOME SAND; ML; 3/2 5Y dark olive gray; fine-grained; stiff; moist; slight odor Wet							
1155		CL	LEAN CLAY WITH LITTLE SILT; CL; 4/1 5Y dark gray; soft; wet; slight odor		1155 SB28@ 10-10.5'			0.5	10	
			Dry		SB28@ 12-12.5'	2.5				
15			Hole terminated at 15 feet.							

GEO FORM 304 MW7MMY05B24SB27.GPJ SECOR INTL.GDY 2/2006

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB29	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft):	BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): ---
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): ---	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		SP	SAND WITH SOME SILT; SP; 4/2 10YR dark grayish brown; loose; wet			1.5				
		SM	SILTY SAND; SM; 4/1 5Y dark gray; medium-grained; medium dense; moist; no odor							
1520			Fine-grained		1520 SB29@ 5-5.5'	2		0.9	5	Neat Portland Cement with 5% bentonite powder
1540		CL-ML	CLAYEY SILT; CL-ML; 4/1 5Y dark gray; soft; moist; slight odor		1540 SB29@ 10-10.5'			0.4	10	
					SB29@ 12-12.5'			0.4		
15			Hole terminated at 15 feet.						15	
20									20	
25									25	

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB30	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft):	BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): —	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
1250		SP	SAND WITH SOME SILT; SP; 4/2 10YR dark grayish brown; very soft; wet		1250 SB30@ 2-2.5'	2.5		16.3		
5		SM	SILTY SAND; SM; 4/4 10YR dark yellowish brown; fine to medium-grained; loose; moist; no odor		SB30@ 5-5.5'			0.7	5	
1255		SC	CLAYEY SAND WITH SILT; SC; 4/2 10YR dark grayish brown; medium dense; moist; slight odor		1255 SB30@ 7-7.5'	3		3.3		
10		SP	SAND; SP; 4/4 10YR dark yellowish brown; medium to coarse-grained; loose; moist; no odor		SB30@ 10-10.5'			35.0	10	
1300		SP	SAND; SP; 4/4 10YR dark yellowish brown; medium to coarse-grained; loose; moist; no odor		1300 SB30@ 12-12.5'	2.5		0.4		
15			Hole terminated at 15 feet.						15	
20									20	
25									25	

GEO FORM 304 MW7MW10SB24SB37.GPJ SECOR INTL.GDT 2/2/06

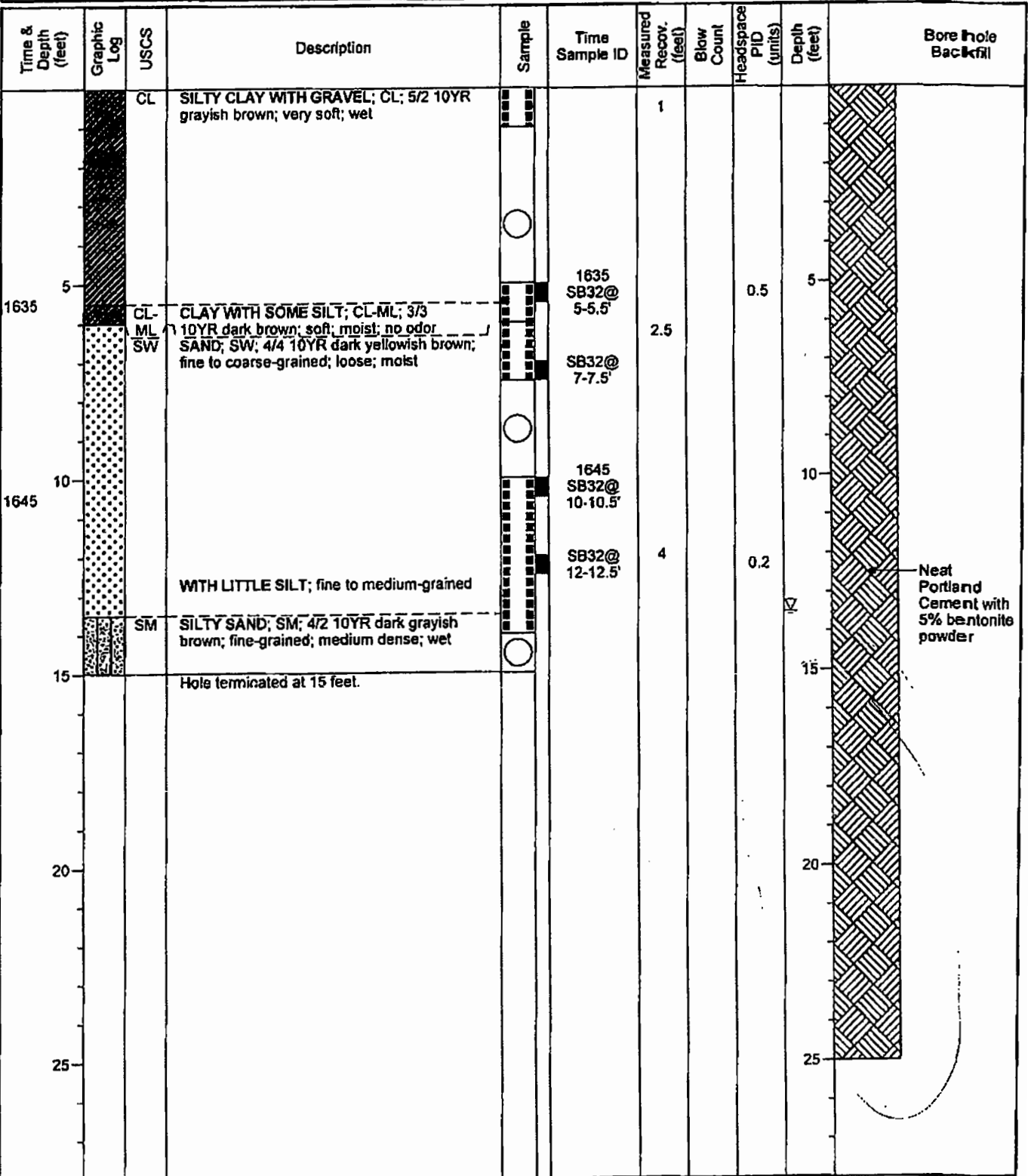
PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB31	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/20/06 COMPLETED: 1/20/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/20/06 COMPLETED: 1/20/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 11.5 1/20/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft):
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): --	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Air knife to five feet below ground surface							
0745		CL	LEAN CLAY; CL; 3/1 10YR very dark gray; soft; moist; no odor; terminated by a 1" layer of medium to fine grained sand WITH LITTLE SILT; 4/2 10YR dark grayish brown		0745 SB31@ 6.5-7'	4		0.0	5	
		SP	SAND WITH SOME SILT; SP; 5/6 10YR yellowish brown; fine-grained; loose; no odor							
		CH	FAT CLAY; CH							
0800		SP	SAND; SP; 4/3 10YR brown; fine-grained; loose; moist; no odor		0800 SB31@ 10.5-11'			0.0	10	
		CL-ML	CLAYEY SILT; CL-ML; 4/2 10YR dark grayish brown; stiff; moist; no odor; terminated by 3" of coarse sand							
			SILTY CLAY; 3/3 10YR dark brown; soft; moist Wet							
0830			WITH LITTLE SAND; very soft						15	
		CH	FAT CLAY WITH SOME SILT; CH; 3/2 10YR very dark grayish brown; stiff; moist; no odor							
			FAT CLAY; hard							
0912									20	
25			Hole terminated at 25 feet.						25	

Neat Portland Cement with 5% bentonite powder

GEO FORM 304 MW7AW10SB14SB31.GPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB32	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 13.5 1/19/06	BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): —	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter



GEO FORM 304 MW7MM10S824S837.GPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB33	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/18/06 COMPLETED: 1/18/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/18/06 COMPLETED: 1/18/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 15 1/18/06	BOREHOLE DEPTH (ft): 21.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): ---	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Air knife to five feet below ground surface							
1150 5		ML	SANDY SILT WITH SOME GRAVEL; ML; 5/4 10YR yellowish brown; fine to medium-grained; soft; dry; no odor; gravel fine grained			2			5	
10					1200 SB33@ 10.5-11'	2		0.3	10	
1200										
15			Wet						15	
1210			Dry			8				Neat Portland Cement with 5% bentonite powder
1235 20			Refusal at 21 feet below ground surface						20	
			Entire boring appeared to consist of fill material Hole terminated at 25 feet.		1235 Hydropunch	5				
25									25	

GEO FORM 304 MW7/MW1DSB24/SB37.GPJ SECOR INTL.GDT 2/206

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB34	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/18/06 COMPLETED: 1/18/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/18/06 COMPLETED: 1/18/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 13 1/18/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): —	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
			Air knife to five feet.							
1430 5		CL-ML	CLAYEY SILT; CL-ML; 3/3 10YR dark brown; stiff; moist; no odor			4			5	
		SM	SILTY SAND; SM; 4/2 10YR dark grayish brown		1440 SB34@ 8.5-9'			0.4		
1440 10		ML	SILT WITH LITTLE CLAY; ML; 3/3 10YR dark brown; soft; moist		1445 SB34@ 11.5-12'	2		0.6	10	
			Wet							
1445 15		CL-ML	CLAYEY SILT; CL-ML; 4/2 10YR dark grayish brown; soft; moist						15	
		CL	SANDY CLAY; CL; 4/3 10YR brown; soft; wet; no odor			4				
		CH	FAT CLAY; CH; 3/2 10YR very dark grayish brown; hard; moist; no odor		1455 SB34@ 18.5-19'			0.7		
1455 20									20	
1500 25			Hole terminated at 25 feet.						25	

Neat Portland Cement with 5% bentonite powder

GEO FORM 304 MW7/MW1/USB24/SB37.GPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB35	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/18/06 COMPLETED: 1/18/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/18/06 COMPLETED: 1/18/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 10.5 1/18/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): ---
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): ---	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace P/D (units)	Depth (feet)	Borehole Backfill
			Air knife to five feet							
1530 5		SP	SAND; SP; 4/4 10YR dark yellowish brown; medium dense; moist; no odor		1540 SB35@ 6.5-7'	2		0.2	5	 Neat Portland Cement with 5% bentonite powder
1540 10		Wet			1545 SB35@ 11.5-12'	2		0.3	10	
1545 15		CH	FAT CLAY; CH; 3/2 10YR very dark grayish brown; soft; moist; no odor						15	
1545 15		SP	SAND WITH SILT; SP; 4/1 10YR dark gray; soft; wet						15	
1605 20		CH	FAT CLAY; CH; 4/2 10YR dark grayish brown; hard; moist		1605 SB35@ 18.5-19'	4		0.3	20	
1610 25			Hole terminated at 25 feet.						25	

GEO FORM 304 MW7AW10SB24SB37 GPJ SECOR INTL GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004
 LOCATION: 15599 Hesperian Boulevard, San Leandro, California
 PROJECT NUMBER: 77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO:
SB36 PAGE 1 OF 2



DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06
 INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06
 DRILLING COMPANY: Cascade Drilling, Inc.
 DRILLING EQUIPMENT: Geoprobe
 DRILLING METHOD: Direct Push
 SAMPLING EQUIPMENT: Microprobe bore barrels

NORTHING (ft):
 LATITUDE:
 GROUND ELEV (ft):
 INITIAL DTW (ft): 11 1/19/06
 STATIC DTW (ft):
 WELL CASING DIAMETER (in): ---
 LOGGED BY: Jim Dowd

EASTING (ft):
 LONGITUDE:
 TOC ELEV (ft):
 BOREHOLE DEPTH (ft): 25.0
 WELL DEPTH (ft): ---
 BOREHOLE DIAMETER (in): 2
 CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
			Air knife to five feet.							
5		SP	SAND; SP; 5/3 10YR brown; fine to medium-grained; loose; dry			4			5	
0725			WITH SOME CLAY; fine-grained		0725 SB36@ 8.5-9'			0.2		
10			SAND; 4/3 10YR brown; fine-grained; loose; dry			2		0.2	10	
0730		CH	Wet FAT CLAY; CH; 3/4 10YR dark yellowish brown; soft; wet; no odor Stiff; moist		0730 SB36@ 10-10.5'					
15										
0915			2/2 10YR very dark brown; soft; no odor		0915 SB36@ 19-19.5'			0.4	20	
20		SP	SAND; SP; 4/4 10YR dark yellowish brown; medium-grained; loose; wet							
25			Hole terminated at 47 feet.						25	

Neat Portland Cement with 5% bentonite powder

GEO FORM 304 MW7/MW10S/B24/SB37.GPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB37	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	PAGE 1 OF 1	
PROJECT NUMBER: 77CP.67004.06.0011		
DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 11 1/19/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): ---
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): ---	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace P1D (units)	Depth (feet)	Borehole Backfill
			Air Knife to five feet							
0940		SM	SILTY SAND; SM; 4/3 10YR brown; dense; dry		0940 SB37@ 6.5-7'	2		0.5	5	
0945		CL-ML-CH-CL	SILTY LEAN CLAY; CL-ML; 4/3 10YR brown; very soft; moist Saturated; medium grain sand at bottom (1" thick) FAT CLAY; CH; 4/2 10YR dark grayish brown; stiff; moist; no odor SANDY LEAN CLAY; CL; 2/2 10YR very dark brown; soft; moist; no odor		0945 SB37@ 10-10.5'	2		0.5	10	
1035		CH	FAT CLAY WITH SOME SILT; CH; 3/2 10YR very dark grayish brown; stiff; moist; no odor			1.5			15	
1110		CL-SP-CH	LEAN CLAY WITH SOME SILT; CL; 4/3 10YR brown; stiff; moist; no odor LEAN CLAY WITH SAND; 4/3 10YR brown; fine-grained; stiff; moist SAND; SP; 4/4 10YR dark yellowish brown; fine-grained; dense; wet FAT CLAY; CH; 3/2 10YR very dark grayish brown; hard; moist; no odor		1110 SB37@ 21.5-22'	2		0.4	20	
25			Hole terminated at 25 feet.						25	Neat Portland Cement with 5% bentonite

GEO FORM 304 MW7MWD5B74SB37.GPJ SECOR INTL.GDT 2/2/06

APPENDIX C
HISTORICAL SOIL ANALYTICAL DATA

No Further Action Required (NFAR) Report and Request for Site Closure

ConocoPhillips

76 Service Station No. 7004

15599 Hesperian Boulevard

San Leandro, California

77CP.01631.11.1222

November 6, 2006

TABLE 1
Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample Name	Sample Depth (feet bgs)	Date Sampled	TPPH ¹ (mg/kg)	BTEX ²				MTBE ³ (mg/kg)	Fuel Oxygenates ⁴						Lead ⁵ (mg/kg)	
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)		TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)		Ethanol (mg/kg)
Groundwater Monitoring Wells																
MW-1																
MW1 (5)	5	4/22/1991	<1.0	<0.0050	<0.0050	<0.0050	0.012	--	--	--	--	--	--	--	--	--
MW1 (10)	10	4/22/1991	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW1 (16)	16	4/22/1991	1.5	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW-2																
MW2 (5)	5	4/22/1991	4.5	0.015	<0.0050	0.034	0.079	--	--	--	--	--	--	--	--	--
MW2 (10)	10	4/22/1991	6.8	0.025	<0.0050	0.035	0.043	--	--	--	--	--	--	--	--	--
MW2 (15.5)	15.5	4/22/1991	<1.0	<0.005	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW2 (17)	17	4/22/1991	<1.0	0.014	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW-3																
MW3 (5)	5	4/22/1991	2.0	0.025	<0.0050	<0.0050	0.011	--	--	--	--	--	--	--	--	--
MW3 (10)	10	4/22/1991	<1.0	0.018	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW3 (15)	15	4/22/1991	4,800	23	9.1	63	290	--	--	--	--	--	--	--	--	--
MW3 (17.5)	17.5	4/22/1991	1,000	8.4	4.6	17	64	--	--	--	--	--	--	--	--	--
MW-4																
MW4 (5)	5	7/2/1991	<1.0	<0.0050	0.0084	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW4 (10)	10	7/2/1991	<1.0	<0.0050	0.0051	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW4 (15)	15	7/2/1991	<1.0	<0.0050	0.016	<0.0050	0.017	--	--	--	--	--	--	--	--	--
MW4 (17)	17	7/2/1991	<1.0	<0.0050	0.015	<0.0050	0.015	--	--	--	--	--	--	--	--	--
MW-5																
MW5 (5)	5	7/2/1991	<1.0	<0.0050	0.030	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW5 (10)	10	7/2/1991	<1.0	<0.0050	0.0074	<0.0050	0.012	--	--	--	--	--	--	--	--	--
MW5 (15)	15	7/2/1991	<1.0	<0.0050	0.011	<0.0050	0.0094	--	--	--	--	--	--	--	--	--
MW5 (17.5)	17.5	7/2/1991	<1.0	<0.0050	0.0098	0.0052	0.0077	--	--	--	--	--	--	--	--	--
MW-6																
MW6 (5)	5	7/2/1991	<1.0	<0.0050	0.0086	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW6 (10)	10	7/2/1991	<1.0	<0.0050	0.0061	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW6 (15)	15	7/2/1991	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW6 (17.5)	17.5	7/2/1991	<1.0	<0.0050	0.0084	<0.0050	0.0063	--	--	--	--	--	--	--	--	--
MW7																
MW7-6	6	1/17/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	13
MW7-10.5	10.5	1/17/2006	<0.91	<0.0046	<0.0046	<0.0046	<0.0091	<0.0046	<0.0091	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	3.8
MW7-12.5	12.5	1/17/2006	<0.85	<0.0043	<0.0043	<0.0043	<0.0085	<0.0043	<0.0085	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.43	6.3
MW7-24	24	1/17/2006	<0.88	<0.0044	<0.0044	<0.0044	<0.0088	<0.0044	<0.0088	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.44	5.0

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample Name	Sample Depth (feet bgs)	Date Sampled	TPPH ¹ (mg/kg)	BTEX ²				MTBE ³ (mg/kg)	Fuel Oxygenates ⁴						Lead ⁵ (mg/kg)	
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)		TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)		Ethanol (mg/kg)
MW8																
MW8-5.5	5.5	1/18/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	6.3
MW8-11.5	11.5	1/18/2006	<1.9	<0.0097 g	<0.0097 g	<0.0097	<0.019	<0.0097 g	<0.019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.97	4.6
MW8-24.5	24.5	1/18/2006	<0.93	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	<0.0093	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	4.5
MW9																
MW9-6.5	6.5	1/17/2006	<0.99	<0.0049	<0.0049	<0.0049	<0.0099	<0.0049	<0.0099	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	5.2
MW9-11	11	1/17/2006	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	0.011	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	5.7
MW9-15	15	1/17/2006	<0.93	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	<0.0093	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	5.2
MW9-25	25	1/17/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	4.2
MW10																
MW10-5.5	5.5	1/17/2006	<0.88	<0.0044	<0.0044	<0.0044	<0.0088	<0.0044	<0.0088	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.44	8.6
MW10-10.5	10.5	1/17/2006	<0.87	<0.0043	<0.0043	<0.0043	<0.0087	<0.0043	<0.0087	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.43	3.8
MW10-20.5	20.5	1/17/2006	<0.92	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<0.0092	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	5.7
MW10-24.5	24.5	1/17/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	4.4
UST and Piping Removal and Excavation																
USTs Removed 1990																
A1	14.5	10/12/1990	a,h	350	2.0	3.6	7.7	47	--	--	--	--	--	--	--	--
A2	14.5	10/12/1990	a,h	480	2.4	7.3	7.4	49	--	--	--	--	--	--	--	--
A3	14	10/12/1990	a,h	570	0.97	5.6	8.3	50	--	--	--	--	--	--	--	--
B1	15	10/12/1990	a,h	180	0.64	0.84	3.0	11	--	--	--	--	--	--	--	--
B2	15	10/12/1990	a,h	1,900	9.7	120	33	250	--	--	--	--	--	--	--	--
B3	15	10/12/1990	a,h	990	6.3	52	16	120	--	--	--	--	--	--	--	--
C1	15	10/12/1990	a,h	270	0.64	3.7	5.4	22	--	--	--	--	--	--	--	--
C2	15	10/12/1990	a,h	1,200	4.9	41	24	150	--	--	--	--	--	--	--	--
C3	15	10/12/1990	a,h	590	4.6	23	9.4	80	--	--	--	--	--	--	--	--
Fuel Tank Pit Side Walls 1990																
SW-1	18	10/19/1990	h	3.7	0.21	0.024	0.14	0.42	--	--	--	--	--	--	--	--
SW-2	18	10/19/1990	h	4.5	0.46	0.024	0.26	0.46	--	--	--	--	--	--	--	--
SW-3	18	10/19/1990	h	4.1	0.024	0.0080	0.058	0.088	--	--	--	--	--	--	--	--
SW-4	18	10/19/1990	h	<1.0	0.0090	<0.0050	<0.0050	0.0070	--	--	--	--	--	--	--	--
SW-5	18	10/22/1990	h	998	0.58	<0.0050	19	21	--	--	--	--	--	--	--	--
SW-5 (20)	18	10/22/1990		30	0.054	0.047	0.46	0.054	--	--	--	--	--	--	--	--
Product Piping Removal 1990																
P1	2.5	10/31/1990	a,f,j	1,400	0.22	3.3	8.9	72	--	--	--	--	--	--	--	--
P1 (8.0)	8	11/2/1990	a	5.7	0.0078	0.0054	0.033	0.18	--	--	--	--	--	--	--	--
P2	3	10/31/1990	a,i	3,900	1.1	23	41	280	--	--	--	--	--	--	--	--
P2 (7.5)	7.5	10/31/1990	a,b,f	20	<0.025	0.11	0.12	1.3	--	--	--	--	--	--	--	--
P3	2.5	10/31/1990	a,f,k	100	0.057	0.63	0.97	12	--	--	--	--	--	--	--	--

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample Name	Sample Depth (feet bgs)	Date Sampled	TPPH ¹ (mg/kg)	BTEX ²				MTBE ³ (mg/kg)	Fuel Oxygenates ⁴						Lead ⁵ (mg/kg)		
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)		TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)		Ethanol (mg/kg)	
P3 (5.5)	5.5	11/2/1990	a,f	9.8	0.015	0.15	0.13	1.3	--	--	--	--	--	--	--	--	
P4	2.5	10/31/1990	a,f	19	<0.0050	0.10	<0.0050	0.13	--	--	--	--	--	--	--	--	
USTs Removed 2000																	
TX-1-13	13	5/26/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	
TX-2-13	13	5/26/2000	c	1.1	<0.0050	<0.0050	0.014	0.015	<0.050	--	--	--	--	--	--	11	
TX-3-13	13	5/26/2000	d	350	<0.25	<0.25	4.8	0.81	<2.5	--	--	--	--	--	--	5.5	
TX-4-13	13	5/26/2000	d	4.1	<0.0050	<0.0050	0.016	0.013	<0.050	--	--	--	--	--	--	5.5	
Product Lines Removed 2000																	
PT1 (3)	3	5/24/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	
PT2 (4)	4	5/24/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	
PT3 (4.5)	4.5	5/24/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	
PT4 (5.5)	5.5	5/24/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	
Soil Borings																	
G-1																	
G-1 (S10)	10	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-1 (S14)	14	9/20/2002		<100	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<20	--
G-2																	
G-2 (S5)	5	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-2 (S10)	10	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-2 (S14)	14	9/20/2002		<100	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<20	--
G-3																	
G-3 (S5)	5	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-3 (S10)	10	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-3 (S13.5)	13.5	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.051	0.083	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-4																	
G-4 (S10)	10	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-4 (S13)	13	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-5																	
G-5 (S5)	5	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-5 (S10)	10	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-5 (S13)	13	9/20/2002	e	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<20	--
SB1																	
SB1-12	12	8/23/2005		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.9
SB2																	
SB2-15	15	8/22/2005		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.4
SB2-22	22	8/22/2005		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	3.2

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample Name	Sample Depth (feet bgs)	Date Sampled	TPPH ¹ (mg/kg)	BTEX ²				MTBE ³ (mg/kg)	Fuel Oxygenates ⁴						Lead ⁵ (mg/kg)	
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)		TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)		Ethanol (mg/kg)
SB35-19	19	1/18/2006	<0.94	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	5.9
SB36																
SB36-9	9	1/19/2006	<0.96	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	3.5
SB36-10.5	10.5	1/19/2006	<0.90	<0.0045	<0.0045	<0.0045	<0.0090	<0.0045	<0.0090	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.45	4.0
SB36-20	20	1/19/2006	<0.96	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	5.5
SB37																
SB37-7	7	1/19/2006	<0.91	<0.0045	<0.0045	<0.0045	<0.0091	<0.0045	<0.0091	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.45	3.7
SB37-10.5	10.5	1/19/2006	<0.94	<0.0047	<0.0047	<0.0047	<0.0094	0.0052	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	5.0
SB37-22	22	1/19/2006	<0.84	<0.0042	<0.0042	<0.0042	<0.0084	0.0094	<0.0084	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.42	5.5

Notes:

-- Not analyzed/recorded
 < Denotes less than Laboratory Reporting Limits
 mg/kg Milligrams per kilogram
 bgs Below ground surface

1,2-DCA 1,2-Dichloroethane
 DIPE Di-isopropyl ether
 EDB Ethylene dibromide
 EPA Environmental Protection Agency

ETBE Ethyl tertiary butyl ether
 GRO Gasoline range organics
 MTBE Methyl tertiary butyl ether
 TAME Tertiary amyl methyl ether

TBA Tertiary butyl alcohol
 TPHg Total petroleum hydrocarbons as gasoline
 TPPH Total purgeable petroleum hydrocarbons

- 1 Analyzed as TPHg by EPA Method 5030/8015 for samples collected between 10/12/1990 and 7/2/1991; as TPHg by DHS Luft between 5/24/2000 and 5/26/2000; as Gasoline (C6-C10) by EPA Method 8260B between 9/20/2002 and 1/20/2006.
 - 2 Analyzed by EPA Method 8020 for samples collected between 10/21/90 and 7/2/1991; by DHS LUFT between 5/24/2000 and 5/26/2000; by EPA Method 8260B between 9/20/2002 and 1/20/2006.
 - 3 Analyzed by DHS Luft between 5/24/2000 and 5/26/2000; by EPA Method 8260B between 9/20/2002 and 1/20/2006.
 - 4 Analyzed by EPA Method 8260B between 9/20/2005 and 1/20/2006.
 - 5 Analyzed by EPA 6000/7000 Series Methods between 5/24/2000 and 5/26/2000; by EPA Method 6010B between 8/26/2005 and 1/20/2006.
- a Samples collected from bulk material excavated by backhoe.
 b Due to matrix effects and/or other factors required additional sample dilution, detection limits for these samples were raised.
 c Chromatogram Pattern was Gasoline C6-C12.
 d Chromatogram Pattern was Gasoline C6-C12 + Unidentified Hydrocarbons >C10.
 e The sample was diluted due to the presence of high levels of non-target analytes resulted in elevated reporting limits.
 f The sample did not appear to contain gasoline.
 g LCS, LCSD, MSD, MC, or Surrogate exceeded the control limits.
 h Sample location excavated to a depth of 19 feet.
 i Sample location excavated to a depth of 7.5 feet.
 j Sample location excavated to a depth of 8 feet.
 k Sample location excavated to a depth of 5.5 feet.

APPENDIX D
HISTORICAL GROUNDWATER MONITORING AND
ANALYTICAL DATA

No Further Action Required (NFAR) Report and Request for Site Closure
ConocoPhillips
76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California
77CP.01631.11.1222
November 6, 2006

TABLE 2
Historical Groundwater Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample ID	Date Sampled	Sample Depth (feet)	TPPH ¹ (µg/L)	BTEX ²				MTBE ³ (µg/L)	TBA ⁴ (µg/L)	DIPE ⁴ (µg/L)	ETBE ⁴ (µg/L)	TAME ⁴ (µg/L)	1,2-DCA ⁴ (µg/L)	EDB ⁴ (µg/L)	Ethanol ⁴ (µg/L)	Lead ⁵ (mg/L)
				Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)									
Groundwater Monitoring Wells During Dual Phase Extraction																
MW-3	11/5/2001	Grab	6,000	57	50.00	920	65	130	--	--	--	--	--	--	--	--
	11/10/2001	Grab	4,700	26	<5.0	84	9.3	150	--	--	--	--	--	--	--	--
RW-1	11/5/2001	Grab	<500	<5.0	<5.0	<5.0	<5.0	860	--	--	--	--	--	--	--	--
	11/10/2001	Grab	2,800	13	<10	130	<10	800	--	--	--	--	--	--	--	--
UST Excavation Groundwater Sample																
W-1	10/24/1990	Grab	4,300	40	1.9	0.54	520	--	--	--	--	--	--	--	--	--
Soil Borings and Monitoring Wells																
G-1W	9/20/2002	Grab	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	--
G-2W	9/20/2002	Grab	<25,000	<250	<250	540	<250	<250	<2,500	<250	<250	<250	<250	<250	<25,000	--
G-3W	9/20/2002	Grab	<2,500	<25	<25	29	<25	240	300	<25	<25	<25	<25	<25	<2,500	--
G-4W	9/20/2002	Grab	96,000	<100	<100	1,500	<100	<100	<1,000	<100	<100	<100	<100	<100	<10,000	--
G-5W	9/20/2002	Grab	<50,000	<500	<500	4,300	<500	<500	<5,000	<500	<500	<500	<500	<500	<50,000	--
SB1	8/23/2005	19	<50	<0.50	0.62	<0.50	1.3	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.016
SB2	8/22/2005	22	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.11
SB3	8/22/2005	19	<50	<0.50	<0.50	<0.50	<1.0	39	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	<0.0050
SB4	8/22/2005	25	53	<0.50	1.4	<0.50	9.4	180	6.2	<0.50	<0.50	<0.50	<0.50	<0.50	1,100	0.14
SB5	8/22/2005	25	<50	<0.50	<0.50	<0.50	<1.0	9.1	7.4	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.046
SB6	8/23/2005	19	<50	<0.50	<0.50	<0.50	<1.0	2.2	5.4	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.020
SB7	8/23/2005	22	<50	<0.50	<0.50	<0.50	<1.0	4.6	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.13
SB8	8/23/2005	22	340 a	<0.50	<0.50	<0.50	<1.0	2.8	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.033
SB9	8/23/2005	19	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.10
SB10	8/23/2005	28	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	<0.0063
SB11	8/24/2005	19	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.083
SB12	8/24/2005	19	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.097
SB13	8/24/2005	19	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.079
SB14	8/24/2005	19	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.018
SB15	8/25/2005	19	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.0069
SB16	8/26/2005 b	22	<50	<0.50	<0.50	<0.50	<1.0	<0.50	0.58	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.12
SB17	8/25/2005 b	22	4,100	3.5	1.1	3.8	<1.0	80	71	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.43
SB18	8/25/2005	22	<50	<0.50	<0.50	<0.50	<1.0	3.8	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.028
SB19	8/25/2005 c,d	22	2,400	<2.5	<2.5	49	<5.0	<2.5	<25	<2.5	<2.5	<2.5	<2.5	<250	0.017	

Historical Groundwater Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample ID	Date Sampled	Sample Depth (feet)	TPPH ¹ (µg/L)	BTEX ²				MTBE ³ (µg/L)	TBA ⁴ (µg/L)	DIPE ⁴ (µg/L)	ETBE ⁴ (µg/L)	TAME ⁴ (µg/L)	1,2-DCA ⁴ (µg/L)	EDB ⁴ (µg/L)	Ethanol ⁴ (µg/L)	Lead ⁵ (mg/L)
				Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)									
SB20	8/25/2005	22	450	2.4	<0.50	8.3	8.2	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.290
SB21	8/26/2005 b,c	22	2,400	14	<2.5	340	<5.0	<2.5	<25	<2.5	<2.5	<2.5	<2.5	<2.5	<250	0.170
SB23	8/26/2005	22	<50	<0.50	<0.50	<0.50	<1.0	10	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.230
SB27	1/19/2006	Grab	310	0.97	<0.50	35	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
SB29	1/19/2006	Grab	<50	<0.50	<0.50	<0.50	<0.50	35	19	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
SB30	1/19/2006	Grab	610	<0.50	0.63	13	73	<0.50	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
SB33	1/18/2006	10-15	<50	<0.50	<0.50	<0.50	<1.0	0.72	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
SB33	1/18/2006	20-25	<50	<0.50	<0.50	<0.50	<1.0	0.59	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
SB34	1/18/2006	Grab	<50	<0.50	<0.50	<0.50	<1.0	57	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
SB35	1/18/2006	Grab	<50	<0.50	<0.50	<0.50	<1.0	19	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
SB36	1/19/2006	Grab	<50	<0.50	<0.50	<0.50	<1.0	16	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
SB37	1/19/2006	Grab	<50	<0.50	<0.50	<0.50	<1.0	23	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
MW-7	2/10/2006	Grab	140	0.71	1.0	3.1	1.9	38	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
MW-8	2/10/2006	Grab	89	0.68	0.63	<0.50	<1.0	0.89	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
MW-9	2/10/2006	Grab	120	0.84	1.1	3.0	1.5	13	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--
MW-10	2/10/2006	Grab	80	0.57	2.1	1.0	1.3	10	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	<100	--

Notes:

--	Not analyzed/applicable/measured	ETBE	Ethyl tertiary butyl ether	MTBE	Methyl tertiary butyl ether
µg/L	Micrograms per liter	GRO	Gasoline range organic	TAME	Tertiary amyl methyl ether
mg/L	Milligrams per liter	DIPE	Di-isopropyl ether	TBA	Tertiary butyl alcohol
1,2-DCA	1,2-dichloroethane	EPA	U.S. Environmental Protection Agency	TPPH	Total purgeable petroleum hydrocarbons
EDB	Ethylene dibromide				

- 1 Analyzed by EPA Methods 5030/8015 on 10/24/1990 ; by DHS LUFT as TPHg between 11/5/2001 and 11/10/2005; by EPA Method 8260B as GRO between 9/20/2002 and 1/19/06.
 - 2 Analyzed by EPA Method 8020 on 10/24/1990; by DHS Luft between 11/5/2001 and 11/10/2001; by EPA Method 8260B between 9/20/2002 and 1/19/06.
 - 3 Analyzed by ; by DHS Luft between 11/5/2001 and 11/10/2001; by EPA Method 8260B between 9/20/2002 and 1/19/2006.
 - 4 Analyzed by ; by EPA Method 8260B between 9/20/2002 and 1/19/2006.
 - 5 Analyzed by EPA Method 6010B between 8/22/2005 and 1/19/2006.
- a Quantity of unknown hydrocarbon(s) in sample based on gasoline.
- b Extracted out of holding time.
- c Reporting limits were raised due to high level of analyte present in the samplpe.
- d Initial analysis within holding time but required dilution.

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 25, 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1 (Screen Interval in feet: 10.0-25.0)														
8/25/06	36.39	13.29	0.00	23.10	-2.59	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.8	
MW-2 (Screen Interval in feet: 10.0-25.0)														
8/25/06	37.07	12.35	0.00	24.72	-1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	8.8	
MW-3 (Screen Interval in feet: 10.0-25.0)														
8/25/06	36.79	--	--	--	--	--	2900	0.75	1.2	57	ND<0.50	--	0.90	Port sample
MW-4 (Screen Interval in feet: 10.0-26.0)														
8/25/06	35.44	13.83	0.00	21.61	-3.82	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
MW-5 (Screen Interval in feet: 10.0-26.0)														
8/25/06	36.81	13.20	0.00	23.61	-1.13	--	790	1.2	ND<0.50	5.0	ND<0.50	--	31	
MW-6 (Screen Interval in feet: 10.0-26.0)														
8/25/06	37.13	12.32	0.00	24.81	-0.61	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.1	
MW-7 (Screen Interval in feet: 20-25)														
8/25/06	37.39	13.53	0.00	23.86	-2.52	--	95	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
MW-8 (Screen Interval in feet: 20-25)														
8/25/06	38.91	13.25	0.00	25.66	-1.94	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	11	
MW-9 (Screen Interval in feet: 20-25)														
8/25/06	38.39	13.51	0.00	24.88	-2.49	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
MW-10 (Screen Interval in feet: 20-25)														
8/25/06	38.12	12.93	0.00	25.19	-1.84	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
RW-1 (Screen Interval in feet: 12.5-27.5)														
8/25/06	--	--	--	--	--	--	56	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	3.9	Port sample

Table 1 a
ADDITIONAL CURRENT ANALYTICAL RESULTS
Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-1							
8/25/06	ND<10	ND<250	--	--	--	--	--
MW-2							
8/25/06	ND<10	ND<250	--	--	--	--	--
MW-3							
8/25/06	ND<10	ND<250	--	--	--	--	--
MW-4							
8/25/06	ND<10	ND<250	--	--	--	--	--
MW-5							
8/25/06	ND<10	ND<250	--	--	--	--	--
MW-6							
8/25/06	ND<10	ND<250	--	--	--	--	--
MW-7							
8/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-8							
8/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-9							
8/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-10							
8/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
RW-1							
8/25/06	ND<10	ND<250	--	--	--	--	--

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1 (Screen Interval in feet: 10.0-25.0)														
5/4/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
7/23/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
10/14/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
1/14/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
4/14/92	--	--	--	--	--	76	--	ND	ND	ND	ND	--	--	
7/9/92	--	--	--	--	--	70	--	ND	ND	ND	ND	130	--	
10/28/92	--	--	--	--	--	--	--	--	--	--	--	--	--	Sampled Semi-Annually
1/21/93	--	--	--	--	--	ND	--	ND	ND	ND	ND	42	--	
4/20/93	36.89	14.89	0.00	22.00	--	--	--	--	--	--	--	56	--	
7/22/93	36.89	14.34	0.00	22.55	0.55	ND	--	ND	ND	ND	ND	77	--	
10/6/93	36.39	14.87	0.00	21.52	-1.03	--	--	--	--	--	--	--	--	
1/11/94	36.39	15.14	0.00	21.25	-0.27	ND	--	ND	ND	ND	ND	--	--	
4/6/94	36.39	14.19	0.00	22.20	0.95	--	--	--	--	--	--	--	--	
7/8/94	36.39	14.66	0.00	21.73	-0.47	ND	--	ND	ND	ND	ND	--	--	
10/6/94	36.39	16.71	0.00	19.68	-2.05	--	--	--	--	--	--	--	--	
1/5/95	36.39	14.68	0.00	21.71	2.03	ND	--	ND	ND	ND	ND	--	--	
4/5/95	36.39	11.76	0.00	24.63	2.92	--	--	--	--	--	--	--	--	
7/14/95	36.39	12.93	0.00	23.46	-1.17	ND	--	0.65	2.2	ND	2.3	--	--	
10/12/95	36.39	14.29	0.00	22.10	-1.36	--	--	--	--	--	--	--	--	
1/8/96	36.39	14.18	0.00	22.21	0.11	ND	--	ND	ND	ND	ND	--	--	
7/8/96	36.39	12.74	0.00	23.65	1.44	ND	--	ND	ND	ND	ND	ND	--	
1/3/97	36.39	12.89	0.00	23.50	-0.15	87	--	ND	ND	ND	ND	ND	--	
7/2/97	36.39	13.66	0.00	22.73	-0.77	ND	--	ND	ND	ND	ND	ND	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1 continued														
1/15/98	36.39	13.08	0.00	23.31	0.58	ND	--	ND	ND	ND	ND	ND	--	
7/8/98	36.39	11.25	0.00	25.14	1.83	ND	--	ND	ND	ND	ND	ND	--	
1/11/99	36.39	13.68	0.00	22.71	-2.43	51	--	ND	ND	ND	ND	4.8	--	
7/7/99	36.39	12.15	0.00	24.24	1.53	ND	--	ND	ND	ND	ND	ND	--	
1/4/00	36.39	13.95	0.00	22.44	-1.80	ND	--	ND	ND	ND	ND	ND	--	
7/15/00	36.39	13.46	0.00	22.93	0.49	ND	--	ND	0.86	ND	ND	ND	--	
1/19/01	36.39	12.96	0.00	23.43	0.50	ND	--	ND	ND	ND	ND	ND	--	
7/31/01	36.39	14.36	0.00	22.03	-1.40	ND	--	ND	ND	ND	ND	ND	--	
1/28/02	36.39	12.89	0.00	23.50	1.47	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
4/22/02	36.39	12.86	0.00	23.53	0.03	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
5/24/02	36.39	13.16	0.00	23.23	-0.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	
6/21/02	36.39	13.52	0.00	22.87	-0.36	--	76	ND<0.50	ND<0.50	ND<0.50	ND<1	--	0.59	
7/29/02	36.39	13.76	0.00	22.63	-0.24	--	54	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
8/29/02	36.39	14.10	0.00	22.29	-0.34	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
9/14/02	36.39	14.18	0.00	22.21	-0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/25/02	36.39	14.63	0.00	21.76	-0.45	--	ND<50	0.91	ND<0.50	ND<0.50	ND<1	--	ND<2	
11/27/02	36.39	14.34	0.00	22.05	0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
12/19/02	36.39	13.60	0.00	22.79	0.74	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
1/24/03	36.39	12.03	0.00	24.36	1.57	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
2/15/03	36.39	12.42	0.00	23.97	-0.39	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
3/17/03	36.39	12.54	0.00	23.85	-0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
4/18/03	36.39	12.43	0.00	23.96	0.11	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
5/19/03	36.39	12.38	0.00	24.01	0.05	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
6/16/03	36.39	13.02	0.00	23.37	-0.64	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1 continued														
7/18/03	36.39	13.66	0.00	22.73	-0.64	--	56	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/1/03	36.39	14.47	0.00	21.92	-0.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
1/30/04	36.39	13.14	0.00	23.25	1.33	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/26/04	36.39	12.68	0.00	23.71	0.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
7/28/04	36.39	13.79	0.00	22.60	-1.11	--	73	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/19/04	36.39	14.04	0.00	22.35	-0.25	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
1/5/05	36.39	13.11	0.00	23.28	0.93	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/14/05	36.39	11.58	0.00	24.81	1.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/29/05	36.39	13.22	0.00	23.17	-1.64	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/2/05	36.39	13.74	0.00	22.65	-0.52	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/21/06	36.39	11.39	0.00	25.00	2.35	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
5/25/06	36.39	10.70	0.00	25.69	0.69	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
8/25/06	36.39	13.29	0.00	23.10	-2.59	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.8	
MW-2 (Screen Interval in feet: 10.0-25.0)														
5/4/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
7/23/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
10/14/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
1/14/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
4/14/92	--	--	--	--	--	45	--	ND	ND	ND	ND	--	--	
7/9/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	49	--	
10/28/92	--	--	--	--	--	--	--	--	--	--	--	--	--	Sampled Semi-Annually
1/21/93	--	--	--	--	--	ND	--	ND	ND	ND	ND	17	--	
4/20/93	37.35	15.20	0.00	22.15	--	--	--	--	--	--	--	80	--	
7/22/93	37.35	14.75	0.00	22.60	0.45	62	--	ND	ND	ND	ND	42	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-2 continued														
10/6/93	37.07	15.49	0.00	21.58	-1.02	--	--	--	--	--	--	--	--	
1/11/94	37.07	15.77	0.00	21.30	-0.28	120	--	ND	ND	ND	ND	--	--	
4/6/94	37.07	14.83	0.00	22.24	0.94	--	--	--	--	--	--	--	--	
7/8/94	37.07	15.28	0.00	21.79	-0.45	140	--	ND	ND	ND	ND	--	--	
10/6/94	37.07	16.32	0.00	20.75	-1.04	--	--	--	--	--	--	--	--	
1/5/95	37.07	15.30	0.00	21.77	1.02	310	--	ND	ND	ND	ND	--	--	
4/5/95	37.07	12.12	0.00	24.95	3.18	--	--	--	--	--	--	--	--	
7/14/95	37.07	13.55	0.00	23.52	-1.43	86	--	ND	ND	ND	ND	--	--	
10/12/95	37.07	14.88	0.00	22.19	-1.33	--	--	--	--	--	--	--	--	
1/8/96	37.07	14.81	0.00	22.26	0.07	91	--	ND	ND	ND	ND	--	--	
7/8/96	37.07	13.37	0.00	23.70	1.44	100	--	ND	ND	ND	ND	ND	--	
1/3/97	37.07	13.14	0.00	23.93	0.23	160	--	ND	ND	ND	ND	ND	--	
7/2/97	37.07	14.26	0.00	22.81	-1.12	91	--	ND	ND	ND	ND	ND	--	
1/15/98	37.07	13.31	0.00	23.76	0.95	ND	--	ND	ND	ND	ND	ND	--	
7/8/98	37.07	11.57	0.00	25.50	1.74	ND	--	ND	ND	ND	ND	ND	--	
1/11/99	37.07	14.26	0.00	22.81	-2.69	ND	--	ND	ND	ND	ND	9.8	--	
7/7/99	37.07	12.24	0.00	24.83	2.02	ND	--	ND	ND	ND	ND	9.4	--	
1/4/00	37.07	14.14	0.00	22.93	-1.90	ND	--	ND	0.518	ND	ND	9.07	--	
7/15/00	37.07	13.75	0.00	23.32	0.39	ND	--	ND	0.51	ND	ND	6.0	--	
1/19/01	37.07	13.37	0.00	23.70	0.38	ND	--	ND	ND	ND	ND	6.84	--	
7/31/01	37.07	14.96	0.00	22.11	-1.59	ND	--	ND	ND	ND	ND	ND	--	
1/28/02	37.07	13.51	0.00	23.56	1.45	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
4/22/02	37.07	13.48	0.00	23.59	0.03	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
5/24/02	37.07	13.78	0.00	23.29	-0.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-2 continued														
6/21/02	37.07	14.11	0.00	22.96	-0.33	--	100	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	
7/29/02	37.07	14.36	0.00	22.71	-0.25	--	60	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
8/29/02	37.07	14.71	0.00	22.36	-0.35	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
9/14/02	37.07	14.81	0.00	22.26	-0.10	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/25/02	37.07	15.23	0.00	21.84	-0.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
11/27/02	37.07	14.95	0.00	22.12	0.28	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
12/19/02	37.07	14.10	0.00	22.97	0.85	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
1/24/03	37.07	12.64	0.00	24.43	1.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
2/15/03	37.07	13.06	0.00	24.01	-0.42	--	64	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
3/17/03	37.07	13.18	0.00	23.89	-0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
4/18/03	37.07	13.06	0.00	24.01	0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
5/19/03	37.07	13.07	0.00	24.00	-0.01	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
6/16/03	37.07	13.72	0.00	23.35	-0.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
7/18/03	37.07	14.35	0.00	22.72	-0.63	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/1/03	37.07	15.10	0.00	21.97	-0.75	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
1/30/04	37.07	13.78	0.00	23.29	1.32	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/26/04	37.07	13.31	0.00	23.76	0.47	--	53	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
7/28/04	37.07	14.39	0.00	22.68	-1.08	--	63	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/19/04	37.07	14.99	0.00	22.08	-0.60	--	56	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
1/5/05	37.07	13.70	0.00	23.37	1.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/14/05	37.07	12.21	0.00	24.86	1.49	--	96	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/29/05	37.07	13.83	0.00	23.24	-1.62	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/2/05	37.07	14.17	0.00	22.90	-0.34	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/21/06	37.07	12.04	0.00	25.03	2.13	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-2 continued														
5/25/06	37.07	11.35	0.00	25.72	0.69	--	57	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
8/25/06	37.07	12.35	0.00	24.72	-1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	8.8	
MW-3 (Screen Interval in feet: 10.0-25.0)														
5/4/91	--	--	--	--	--	34000	--	6100	32	1200	6100	--	--	
7/23/91	--	--	--	--	--	17000	--	5500	26	1800	2800	--	--	
10/14/91	--	--	--	--	--	25000	--	6300	78	2000	1400	--	--	
1/14/92	--	--	--	--	--	13000	--	6600	19	2600	1800	--	--	
4/14/92	--	--	--	--	--	16000	--	3400	19	1400	1300	--	--	
7/9/92	--	--	--	--	--	13000	--	3200	12	1900	1100	--	--	
10/28/92	--	--	--	--	--	15000	--	4400	15	2400	800	--	--	
1/21/93	--	--	--	--	--	12000	--	2800	11	1600	590	--	--	
4/20/93	37.22	15.13	0.00	22.09	--	18000	--	3700	11	2300	1300	410	--	
7/22/93	37.22	13.52	0.00	23.70	1.61	16000	--	4500	17	3600	1900	440	--	
10/6/93	36.79	15.41	0.00	21.38	-2.32	24000	--	4100	ND	3600	2000	ND	--	
1/11/94	36.79	15.66	0.00	21.13	-0.25	19000	--	3300	31	3300	890	--	--	
4/6/94	36.79	14.72	0.00	22.07	0.94	24000	--	3100	ND	3300	820	--	--	
7/8/94	36.79	15.20	0.00	21.59	-0.48	18000	--	2200	25	2500	860	--	--	
10/6/94	36.79	16.23	0.00	20.56	-1.03	20000	--	2100	26	3000	900	--	--	
1/5/95	36.79	15.12	0.00	21.67	1.11	20000	--	2100	ND	3200	3800	--	--	
4/5/95	36.79	12.03	0.00	24.76	3.09	18000	--	2100	ND	3700	690	--	--	
7/14/95	36.79	13.46	0.00	23.33	-1.43	21000	--	1600	ND	3900	1500	--	--	
10/12/95	36.79	14.81	0.00	21.98	-1.35	17000	--	1000	ND	3600	1000	--	--	
1/8/96	36.79	14.70	0.00	22.09	0.11	14000	--	760	ND	3100	380	--	--	
7/8/96	36.79	13.29	0.00	23.50	1.41	16000	--	470	45	4400	1000	340	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-3 continued														
1/3/97	36.79	13.09	0.00	23.70	0.20	14000	--	160	ND	2100	120	620	--	
7/2/97	36.79	13.96	0.00	22.83	-0.87	23000	--	110	ND	3600	1600	1200	--	
1/15/98	36.79	13.26	0.00	23.53	0.70	12000	--	33	ND	2800	120	1100	--	
7/8/98	36.79	11.64	0.00	25.15	1.62	20000	--	76	ND	4100	1400	750	--	
1/11/99	36.79	14.17	0.00	22.62	-2.53	23000	--	ND	ND	4100	460	920	--	
7/7/99	36.79	13.18	0.00	23.61	0.99	15000	--	35	ND	3400	470	1700	--	
1/4/00	36.79	14.27	0.00	22.52	-1.09	15500	--	ND	ND	3330	191	827	--	
7/15/00	36.79	13.91	0.00	22.88	0.36	15000	--	ND	ND	3400	420	3300	--	
8/25/00	36.79	14.24	0.00	22.55	-0.33	--	--	--	--	--	--	1920	--	
1/19/01	36.79	13.42	0.00	23.37	0.82	11100	--	38.4	ND	1760	38.8	ND	--	
7/31/01	36.79	14.90	0.00	21.89	-1.48	13000	--	ND	ND	1600	63	ND	--	
1/28/02	36.79	13.41	0.00	23.38	1.49	82	--	ND<0.50	ND<0.50	10	ND<0.50	ND<2.5	--	
4/22/02	36.79	13.41	0.00	23.38	0.00	7300	--	39	ND<25	970	ND<25	ND<120	--	
5/24/02	36.79	13.69	0.00	23.10	-0.28	--	8500	ND<5	ND<5	1200	ND<10	--	12	
6/21/02	36.79	14.04	0.00	22.75	-0.35	--	11000	ND<5	ND<5	690	ND<10	--	17	
7/29/02	36.79	14.28	0.00	22.51	-0.24	--	6800	ND<5	ND<5	1100	ND<10	--	ND<20	
8/29/02	36.79	14.62	0.00	22.17	-0.34	--	7200	ND<25	ND<25	1200	ND<50	--	ND<100	
9/14/02	36.79	14.72	0.00	22.07	-0.10	--	180	ND<0.50	ND<0.50	20	ND<1	--	ND<2	
10/25/02	36.79	15.13	0.00	21.66	-0.41	--	1000	ND<0.50	ND<0.50	110	ND<1	--	ND<2	
11/27/02	36.79	14.85	0.00	21.94	0.28	--	7600	ND<10	ND<10	1200	ND<20	--	ND<40	
12/19/02	36.79	13.83	0.00	22.96	1.02	--	6400	ND<10	ND<10	810	ND<20	--	ND<40	
1/24/03	36.79	12.52	0.00	24.27	1.31	--	6600	ND<25	ND<25	930	ND<50	--	ND<100	
2/15/03	36.79	12.96	0.00	23.83	-0.44	--	8400	ND<10	ND<10	970	ND<20	--	ND<40	
3/17/03	36.79	13.08	0.00	23.71	-0.12	--	7900	ND<5	ND<5	1100	ND<10	--	ND<20	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-3 continued														
4/18/03	36.79	12.95	0.00	23.84	0.13	--	6700	ND<5	ND<5	1100	ND<10	--	ND<20	
5/19/03	36.79	13.10	0.00	23.69	-0.15	--	8700	ND<5	ND<5	1100	ND<10	--	ND<20	
6/16/03	36.79	13.75	0.00	23.04	-0.65	--	7700	ND<10	ND<10	1000	ND<20	--	ND<40	
7/18/03	36.79	14.43	0.00	22.36	-0.68	--	11000	ND<10	ND<10	1800	1300	--	ND<40	
10/1/03	36.79	15.12	0.00	21.67	-0.69	--	9000	ND<10	ND<10	820	ND<20	--	ND<10	
1/30/04	36.79	13.70	0.00	23.09	1.42	--	7800	ND<5.0	ND<5.0	670	ND<10	--	ND<20	
4/26/04	36.79	13.23	0.00	23.56	0.47	--	9800	ND<5.0	ND<5.0	470	ND<10	--	ND<5.0	
7/28/04	36.79	14.35	0.00	22.44	-1.12	--	10000	ND<5.0	ND<5.0	450	ND<10	--	ND<5.0	
10/19/04	36.79	14.90	0.00	21.89	-0.55	--	5700	3.2	ND<2.5	210	ND<5.0	--	ND<2.5	
1/5/05	36.79	13.44	0.00	23.35	1.46	--	4600	0.96	0.73	42	1.4	--	ND<2.5	
6/14/05	36.79	12.09	0.00	24.70	1.35	--	8400	ND<5.0	ND<5.0	180	ND<10	--	ND<5.0	
9/29/05	36.79	13.78	0.00	23.01	-1.69	--	670	ND<5.0	ND<5.0	22	ND<10	--	ND<5.0	
12/2/05	36.79	14.21	0.00	22.58	-0.43	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/21/06	36.79	12.29	0.00	24.50	1.92	--	4400	1.1	1.5	86	4.6	--	ND<0.50	
5/25/06	36.79	11.24	0.00	25.55	1.05	--	3200	0.53	1.3	59	ND<1.0	--	ND<0.50	
8/25/06	36.79	--	--	--	--	--	2900	0.75	1.2	57	ND<0.50	--	0.90	Port sample
MW-4 (Screen Interval in feet: 10.0-26.0)														
7/23/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
10/14/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
1/14/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
4/14/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
7/9/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
10/28/92	--	--	--	--	--	--	--	--	--	--	--	--	--	Sampled Semi-Annually
1/21/93	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-4 continued														
4/20/93	35.81	13.84	0.00	21.97	--	--	--	--	--	--	--	65	--	
7/22/93	35.81	13.52	0.00	22.29	0.32	ND	--	ND	ND	ND	ND	54	--	
10/6/93	35.44	14.17	0.00	21.27	-1.02	--	--	--	--	--	--	--	--	
1/11/94	35.44	14.42	0.00	21.02	-0.25	ND	--	ND	ND	ND	ND	--	--	
4/6/94	35.44	13.44	0.00	22.00	0.98	--	--	--	--	--	--	--	--	
7/8/94	35.44	13.96	0.00	21.48	-0.52	ND	--	ND	ND	ND	ND	--	--	
10/6/94	35.44	15.00	0.00	20.44	-1.04	--	--	--	--	--	--	--	--	
1/5/95	35.44	13.83	0.00	21.61	1.17	ND	--	ND	ND	ND	ND	--	--	
4/5/95	35.44	11.05	0.00	24.39	2.78	--	--	--	--	--	--	--	--	
7/14/95	35.44	12.23	0.00	23.21	-1.18	ND	--	ND	ND	ND	ND	--	--	
10/12/95	35.44	13.59	0.00	21.85	-1.36	--	--	--	--	--	--	--	--	
1/8/96	35.44	13.43	0.00	22.01	0.16	ND	--	ND	ND	ND	ND	--	--	
7/8/96	35.44	12.04	0.00	23.40	1.39	ND	--	ND	ND	ND	ND	ND	--	
1/3/97	35.44	12.38	0.00	23.06	-0.34	80	--	ND	ND	ND	ND	ND	--	
7/2/97	35.44	13.00	0.00	22.44	-0.62	ND	--	ND	ND	ND	ND	25	--	
1/15/98	35.44	12.50	0.00	22.94	0.50	ND	--	ND	ND	ND	ND	ND	--	
7/8/98	35.44	10.53	0.00	24.91	1.97	ND	--	ND	ND	ND	ND	25	--	
1/11/99	35.44	12.95	0.00	22.49	-2.42	ND	--	ND	ND	ND	ND	23	--	
7/7/99	35.44	11.76	0.00	23.68	1.19	ND	--	ND	ND	ND	ND	15	--	
1/4/00	35.44	13.17	0.00	22.27	-1.41	ND	--	ND	ND	ND	ND	13.2	--	
7/15/00	35.44	13.04	0.00	22.40	0.13	ND	--	ND	ND	ND	ND	11	--	
1/19/01	35.44	12.65	0.00	22.79	0.39	ND	--	ND	ND	ND	ND	9.97	--	
7/31/01	35.44	13.69	0.00	21.75	-1.04	ND	--	ND	ND	ND	ND	6.0	--	
1/28/02	35.44	12.17	0.00	23.27	1.52	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	13	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-4 continued														
4/22/02	35.44	12.18	0.00	23.26	-0.01	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.7	--	
5/24/02	35.44	12.45	0.00	22.99	-0.27	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	2.9	
6/21/02	35.44	12.48	0.00	22.96	-0.03	--	54	ND<0.50	ND<0.50	ND<0.50	ND<1	--	3.6	
7/29/02	35.44	13.08	0.00	22.36	-0.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	5.7	
8/29/02	35.44	13.39	0.00	22.05	-0.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	8.5	
9/14/02	35.44	13.49	0.00	21.95	-0.10	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	4.8	
10/25/02	35.44	13.93	0.00	21.51	-0.44	--	ND<50	0.82	ND<0.50	ND<0.50	ND<1	--	7.1	
11/27/02	35.44	13.62	0.00	21.82	0.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	7.3	
12/19/02	35.44	12.56	0.00	22.88	1.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	8.1	
1/24/03	35.44	11.26	0.00	24.18	1.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	8.4	
2/15/03	35.44	11.71	0.00	23.73	-0.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	6.2	
3/17/03	35.44	11.82	0.00	23.62	-0.11	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	7.3	
4/18/03	35.44	11.70	0.00	23.74	0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	6.2	
5/19/03	35.44	11.74	0.00	23.70	-0.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	3.2	
6/16/03	35.44	12.35	0.00	23.09	-0.61	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	4.3	
7/18/03	35.44	13.06	0.00	22.38	-0.71	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/1/03	35.44	13.81	0.00	21.63	-0.75	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.89	
1/30/04	35.44	12.42	0.00	23.02	1.39	--	55	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.2	
4/26/04	35.44	11.99	0.00	23.45	0.43	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.0	
7/28/04	35.44	13.12	0.00	22.32	-1.13	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.8	
10/19/04	35.44	13.78	0.00	21.66	-0.66	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
1/5/05	35.44	12.21	0.00	23.23	1.57	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.7	
6/14/05	35.44	10.99	0.00	24.45	1.22	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.1	
9/29/05	35.44	12.57	0.00	22.87	-1.58	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	7.0	

Table 2
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MW-4 continued														
12/2/05	35.44	13.01	0.00	22.43	-0.44	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	
3/21/06	35.44	10.82	0.00	24.62	2.19	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.9	
5/25/06	35.44	10.01	0.00	25.43	0.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.9	
8/25/06	35.44	13.83	0.00	21.61	-3.82	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
MW-5 (Screen Interval in feet: 10.0-26.0)														
7/23/91	--	--	--	--	--	260	--	1.2	0.39	10	0.71	--	--	
10/14/91	--	--	--	--	--	140	--	0.72	ND	1.3	0.89	--	--	
1/14/92	--	--	--	--	--	60	--	ND	ND	ND	ND	--	--	
4/14/92	--	--	--	--	--	86	--	ND	ND	ND	ND	--	--	
7/9/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	71	--	
10/28/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	45	--	
1/21/93	--	--	--	--	--	100	--	ND	ND	ND	ND	160	--	
4/20/93	37.01	14.87	0.00	22.14	--	99	--	ND	ND	ND	ND	120	--	
7/22/93	37.01	14.82	0.00	22.19	0.05	59	--	ND	ND	2.6	ND	42	--	
10/6/93	36.81	15.61	0.00	21.20	-0.99	150	--	1.1	ND	3.1	0.85	57	--	
1/11/94	36.81	15.84	0.00	20.97	-0.23	160	--	ND	0.79	0.54	ND	--	--	
4/6/94	36.81	14.90	0.00	21.91	0.94	260	--	1.4	ND	0.88	ND	--	--	
7/8/94	36.81	15.38	0.00	21.43	-0.48	200	--	ND	ND	ND	ND	--	--	
10/6/94	36.81	16.42	0.00	20.39	-1.04	350	--	1.3	ND	ND	ND	--	--	
1/5/95	36.81	15.20	0.00	21.61	1.22	85	--	ND	ND	ND	ND	--	--	
4/5/95	36.81	11.72	0.00	25.09	3.48	ND	--	ND	ND	ND	ND	--	--	
7/14/95	36.81	13.69	0.00	23.12	-1.97	180	--	1.3	ND	7.9	ND	--	--	
10/12/95	36.81	15.02	0.00	21.79	-1.33	310	--	ND	ND	31	1.2	--	--	
1/8/96	36.81	14.85	0.00	21.96	0.17	ND	--	0.55	ND	ND	0.58	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-5 continued														
7/8/96	36.81	13.52	0.00	23.29	1.33	140	--	2.1	1.4	5.6	0.51	110	--	
7/12/96	36.81	14.50	0.00	22.31	-0.98	--	--	--	--	--	--	--	--	
1/3/97	36.81	12.85	0.00	23.96	1.65	12000	--	150	ND	2100	120	660	--	
7/2/97	36.81	13.79	0.00	23.02	-0.94	ND	--	ND	ND	ND	ND	72	--	
1/15/98	36.81	13.03	0.00	23.78	0.76	69	--	ND	ND	ND	ND	--	--	
7/8/98	36.81	12.05	0.00	24.76	0.98	ND	--	0.74	ND	ND	ND	95	--	
1/11/99	36.81	14.41	0.00	22.40	-2.36	ND	--	1.0	ND	ND	ND	170	--	
7/7/99	36.81	12.38	0.00	24.43	2.03	130	--	0.64	ND	ND	ND	330	--	
1/4/00	36.81	14.33	0.00	22.48	-1.95	ND	--	ND	ND	ND	ND	183	--	
7/15/00	36.81	13.88	0.00	22.93	0.45	ND	--	0.68	ND	ND	ND	350	--	
1/19/01	36.81	13.41	0.00	23.40	0.47	ND	--	ND	ND	ND	ND	195	--	
7/31/01	36.81	15.12	0.00	21.69	-1.71	ND	--	ND	ND	ND	ND	190	--	
1/28/02	36.81	13.59	0.00	23.22	1.53	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	97	--	
4/22/02	36.81	13.61	0.00	23.20	-0.02	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	--	
5/24/02	36.81	13.89	0.00	22.92	-0.28	--	89	ND<0.50	ND<0.50	ND<0.50	ND<1	--	180	
6/21/02	36.81	14.22	0.00	22.59	-0.33	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1	--	85	
7/29/02	36.81	14.48	0.00	22.33	-0.26	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1	--	76	
8/29/02	36.81	14.80	0.00	22.01	-0.32	--	ND<500	ND<5	ND<5	ND<5	ND<10	--	380	
9/14/02	36.81	14.91	0.00	21.90	-0.11	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1	--	91	
10/25/02	36.81	15.32	0.00	21.49	-0.41	--	ND<200	ND<2	ND<2	ND<2	ND<4.0	--	270	
11/27/02	36.81	15.03	0.00	21.78	0.29	--	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5	--	330	
12/19/02	36.81	13.75	0.00	23.06	1.28	--	290	ND<2.5	ND<2.5	ND<2.5	ND<5	--	320	
1/24/03	36.81	12.68	0.00	24.13	1.07	--	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5	--	200	
2/15/03	36.81	13.15	0.00	23.66	-0.47	--	82	ND<0.50	ND<0.50	ND<0.50	ND<1	--	180	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-5 continued														
3/17/03	36.81	13.26	0.00	23.55	-0.11	--	400	ND<2.5	ND<2.5	ND<2.5	ND<5	--	510	
4/18/03	36.81	13.14	0.00	23.67	0.12	--	140	ND<0.50	ND<0.50	ND<0.50	ND<1	--	170	
5/19/03	36.81	13.45	0.00	23.36	-0.31	--	ND<500	ND<5	ND<5	ND<5	ND<10	--	1000	
6/16/03	36.81	14.07	0.00	22.74	-0.62	--	ND<500	ND<5	ND<5	ND<5	ND<10	--	730	
7/18/03	36.81	14.71	0.00	22.10	-0.64	--	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5	--	260	
10/1/03	36.81	15.36	0.00	21.45	-0.65	--	220	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	100	
1/30/04	36.81	14.05	0.00	22.76	1.31	--	460	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	210	
4/26/04	36.81	13.60	0.00	23.21	0.45	--	260	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	200	
7/28/04	36.81	14.53	0.00	22.28	-0.93	--	140	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	130	
10/19/04	36.81	15.13	0.00	21.68	-0.60	--	120	0.53	ND<0.50	ND<0.50	ND<1.0	--	76	
1/5/05	36.81	13.48	0.00	23.33	1.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	89	
6/14/05	36.81	12.31	0.00	24.50	1.17	--	230	0.70	ND<0.50	ND<0.50	ND<1.0	--	110	
9/29/05	36.81	13.96	0.00	22.85	-1.65	--	270	0.56	ND<0.50	ND<0.50	ND<1.0	--	55	
12/2/05	36.81	14.37	0.00	22.44	-0.41	--	50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	9.4	
3/21/06	36.81	12.20	0.00	24.61	2.17	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.3	
5/25/06	36.81	12.07	0.00	24.74	0.13	--	1100	1.5	ND<0.50	3.5	ND<1.0	--	72	
8/25/06	36.81	13.20	0.00	23.61	-1.13	--	790	1.2	ND<0.50	5.0	ND<0.50	--	31	
MW-6 (Screen Interval in feet: 10.0-26.0)														
7/23/91	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
10/14/91	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
1/14/92	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
4/14/92	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
7/9/92	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
10/28/92	--	--	0.00	--	--	--	--	--	--	--	--	--	--	Sampled Semi-Annually

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-6 continued														
1/21/93	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
4/20/93	37.55	15.27	0.00	22.28	--	--	--	--	--	--	--	ND	--	
7/22/93	37.55	15.20	0.00	22.35	0.07	ND	--	ND	ND	ND	ND	ND	--	
10/6/93	37.13	15.75	0.00	21.38	-0.97	--	--	--	--	--	--	--	--	
1/11/94	37.13	16.02	0.00	21.11	-0.27	ND	--	ND	ND	ND	ND	--	--	
4/6/94	37.13	15.07	0.00	22.06	0.95	--	--	--	--	--	--	--	--	
7/8/94	37.13	15.55	0.00	21.58	-0.48	ND	--	ND	ND	ND	ND	--	--	
10/6/94	37.13	16.58	0.00	20.55	-1.03	--	--	--	--	--	--	--	--	
1/5/95	37.13	15.42	0.00	21.71	1.16	ND	--	ND	ND	ND	ND	--	--	
4/5/95	37.13	12.14	0.00	24.99	3.28	--	--	--	--	--	--	--	--	
7/14/95	37.13	13.87	0.00	23.26	-1.73	ND	--	ND	ND	ND	ND	--	--	
10/12/95	37.13	15.17	0.00	21.96	-1.30	--	--	--	--	--	--	--	--	
1/8/96	37.13	15.05	0.00	22.08	0.12	ND	--	ND	ND	ND	ND	--	--	
7/8/96	37.13	13.71	0.00	23.42	1.34	ND	--	ND	ND	ND	ND	ND	--	
1/3/97	37.13	13.12	0.00	24.01	0.59	97	--	ND	ND	ND	ND	ND	--	
7/2/97	37.13	14.57	0.00	22.56	-1.45	ND	--	ND	ND	ND	ND	ND	--	
1/15/98	37.13	13.30	0.00	23.83	1.27	ND	--	ND	ND	ND	ND	ND	--	
7/8/98	37.13	12.33	0.00	24.80	0.97	ND	--	ND	ND	ND	ND	ND	--	
1/11/99	37.13	14.60	0.00	22.53	-2.27	ND	--	ND	ND	ND	ND	ND	--	
7/7/99	37.13	13.23	0.00	23.90	1.37	ND	--	ND	ND	ND	ND	ND	--	
1/4/00	37.13	14.41	0.00	22.72	-1.18	ND	--	ND	ND	ND	ND	ND	--	
7/15/00	37.13	14.05	0.00	23.08	0.36	ND	--	ND	ND	ND	ND	ND	--	
1/19/01	37.13	13.58	0.00	23.55	0.47	ND	--	ND	ND	ND	ND	ND	--	
7/31/01	37.13	15.24	0.00	21.89	-1.66	ND	--	ND	ND	ND	ND	ND	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-6 continued														
1/28/02	37.13	13.80	0.00	23.33	1.44	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
4/22/02	37.13	13.22	0.00	23.91	0.58	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
5/24/02	37.13	14.07	0.00	23.06	-0.85	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	
6/21/02	37.13	14.38	0.00	22.75	-0.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	
7/29/02	37.13	14.64	0.00	22.49	-0.26	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
8/29/02	37.13	14.97	0.00	22.16	-0.33	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
9/14/02	37.13	15.04	0.00	22.09	-0.07	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/25/02	37.13	15.46	0.00	21.67	-0.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
11/27/02	37.13	15.17	0.00	21.96	0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
12/19/02	37.13	13.88	0.00	23.25	1.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
1/24/03	37.13	12.91	0.00	24.22	0.97	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
2/15/03	37.13	13.38	0.00	23.75	-0.47	--	ND<50	ND<0.50	ND<0.50	0.98	3.6	--	ND<2	
3/17/03	37.13	13.49	0.00	23.64	-0.11	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
4/18/03	37.13	13.33	0.00	23.80	0.16	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
5/19/03	37.13	13.73	0.00	23.40	-0.40	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
6/16/03	37.13	14.41	0.00	22.72	-0.68	--	97	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
7/18/03	37.13	15.01	0.00	22.12	-0.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/1/03	37.13	15.58	0.00	21.55	-0.57	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
1/30/04	37.13	14.05	0.00	23.08	1.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/26/04	37.13	13.64	0.00	23.49	0.41	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
7/28/04	37.13	14.68	0.00	22.45	-1.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/19/04	37.13	15.21	0.00	21.92	-0.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
1/5/05	37.13	13.68	0.00	23.45	1.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/14/05	37.13	12.52	0.00	24.61	1.16	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

Table 2
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May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-6 continued														
9/29/05	37.13	14.12	0.00	23.01	-1.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/2/05	37.13	14.04	0.00	23.09	0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/21/06	37.13	12.42	0.00	24.71	1.62	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
5/25/06	37.13	11.71	0.00	25.42	0.71	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
8/25/06	37.13	12.32	0.00	24.81	-0.61	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.1	
MW-7 (Screen Interval in feet: 20-25)														
5/25/06	37.39	11.01	0.00	26.38	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	17	
8/25/06	37.39	13.53	0.00	23.86	-2.52	--	95	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
MW-8 (Screen Interval in feet: 20-25)														
5/25/06	38.91	11.31	0.00	27.60	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
8/25/06	38.91	13.25	0.00	25.66	-1.94	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	11	
MW-9 (Screen Interval in feet: 20-25)														
5/25/06	38.39	11.02	0.00	27.37	--	--	54	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	10	
8/25/06	38.39	13.51	0.00	24.88	-2.49	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
MW-10 (Screen Interval in feet: 20-25)														
5/25/06	38.12	11.09	0.00	27.03	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.9	
8/25/06	38.12	12.93	0.00	25.19	-1.84	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
RW-1 (Screen Interval in feet: 12.5-27.5)														
7/8/98	--	11.72	0.00	--	--	80	--	1.7	ND	ND	ND	1300	--	
1/11/99	--	14.05	0.00	--	--	ND	--	3.0	ND	ND	ND	1200	--	
7/7/99	--	13.05	0.00	--	--	ND	--	ND	ND	ND	ND	590	--	
1/4/00	--	14.26	0.00	--	--	ND	--	ND	ND	ND	ND	270	--	
7/15/00	--	13.77	0.00	--	--	ND	--	0.55	ND	ND	ND	460	--	

Table 2
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(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
RW-1 continued														
1/19/01	--	13.29	0.00	--	--	ND	--	ND	ND	ND	ND	338	--	
7/31/01	--	14.72	0.00	--	--	ND	--	ND	ND	ND	ND	1900	--	
1/28/02	--	13.21	0.00	--	--	72	--	0.98	ND<0.50	ND<0.50	ND<0.50	460	--	
4/22/02	--	13.22	0.00	--	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	290	--	
5/24/02	--	13.51	0.00	--	--	--	1200	ND<1	ND<1	30	ND<2	--	300	
6/21/02	--	13.85	0.00	--	--	--	400	ND<0.50	ND<0.50	ND<0.50	ND<1	--	130	
7/29/02	--	14.11	0.00	--	--	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1	--	91	
8/29/02	--	14.43	0.00	--	--	--	2400	ND<2	ND<2	47	ND<4.0	--	210	
9/14/02	--	14.54	0.00	--	--	--	390	ND<0.50	ND<0.50	ND<0.50	ND<1	--	120	
10/25/02	--	14.95	0.00	--	--	--	2700	0.96	1.1	51	ND<1	--	160	
11/27/02	--	14.66	0.00	--	--	--	1800	0.91	0.82	31	ND<1	--	170	
12/19/02	--	13.60	0.00	--	--	--	2900	ND<5	ND<5	50	ND<10	--	200	
1/24/03	--	12.31	0.00	--	--	--	1800	0.88	0.69	29	ND<1	--	140	
2/15/03	--	12.88	0.00	--	--	--	480	ND<0.50	ND<0.50	6.8	ND<1	--	88	
3/17/03	--	12.88	0.00	--	--	--	ND<50	0.62	ND<0.50	21	ND<1	--	86	
4/18/03	--	12.76	0.00	--	--	--	1600	0.76	0.92	34	ND<1	--	62	
5/19/03	--	12.91	0.00	--	--	--	1200	0.60	ND<0.50	15	ND<1.5	--	76	
6/16/03	--	13.55	0.00	--	--	--	760	0.60	0.64	4.1	ND<1	--	100	
7/18/03	--	14.33	0.00	--	--	--	620	0.61	1.8	3.6	ND<1	--	60	
10/1/03	--	14.90	0.00	--	--	--	490	0.56	ND<0.50	1.7	ND<1.0	--	15	
1/30/04	--	13.46	0.00	--	--	--	1400	ND<2.5	ND<2.5	8.6	ND<5.0	--	38	
4/26/04	--	13.03	0.00	--	--	--	1100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	30	
7/28/04	--	14.15	0.00	--	--	--	1200	ND<2.5	ND<2.5	15	ND<5.0	--	24	
10/19/04	--	14.34	0.00	--	--	--	680	0.99	ND<0.50	16	ND<1.0	--	15	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through August 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
RW-1 continued														
1/5/05	--	13.23	0.00	--	--	--	160	ND<0.50	ND<0.50	2.2	ND<1.0	--	2.5	
6/14/05	--	11.91	0.00	--	--	--	1300	0.61	ND<0.50	14	ND<1.0	--	10	
9/29/05	--	13.58	0.00	--	--	--	1000	0.53	ND<0.50	16	ND<1.0	--	4.7	
12/2/05	--	14.02	0.00	--	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.3	
3/21/06	--	12.74	0.00	--	--	--	440	ND<0.50	ND<0.50	4.2	ND<1.0	--	6.8	
5/25/06	--	11.05	0.00	--	--	--	930	ND<0.50	ND<0.50	3.7	ND<1.0	--	7.6	
8/25/06	--	--	--	--	--	--	56	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	3.9	Port sample

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Lead (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)
MW-1										
7/2/97	--	--	--	--	--	--	--	--	--	3.82
6/16/03	--	ND<500	--	--	--	--	--	--	--	--
7/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/1/03	--	ND<50	--	--	--	--	--	--	--	--
1/30/04	--	ND<500	--	--	--	--	--	--	--	--
4/26/04	--	ND<50	--	--	--	--	--	--	--	--
7/28/04	--	ND<50	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
1/5/05	--	ND<50	--	--	--	--	--	--	--	--
6/14/05	--	ND<50	--	--	--	--	--	--	--	--
9/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/2/05	--	ND<250	--	--	--	--	--	ND<50	--	--
3/21/06	--	ND<250	--	--	--	--	--	--	--	--
5/25/06	--	ND<250	--	--	--	--	--	--	--	--
8/25/06	ND<10	ND<250	--	--	--	--	--	--	--	--
MW-2										
6/16/03	--	ND<500	--	--	--	--	--	--	--	--
7/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/1/03	--	ND<50	--	--	--	--	--	--	--	--
1/30/04	--	ND<500	--	--	--	--	--	--	--	--
4/26/04	--	ND<50	--	--	--	--	--	--	--	--
7/28/04	--	ND<50	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
1/5/05	--	ND<50	--	--	--	--	--	--	--	--
6/14/05	--	ND<50	--	--	--	--	--	--	--	--
9/29/05	--	ND<250	--	--	--	--	--	--	--	--

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Lead (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)
MW-2 continued										
12/2/05	--	ND<250	--	--	--	--	--	ND<50	--	--
3/21/06	--	ND<250	--	--	--	--	--	--	--	--
5/25/06	--	ND<250	--	--	--	--	--	--	--	--
8/25/06	ND<10	ND<250	--	--	--	--	--	--	--	--
MW-3										
8/25/00	ND	--	ND	ND	ND	ND	ND	--	--	--
6/16/03	--	ND<10000	--	--	--	--	--	--	--	--
7/18/03	--	ND<10000	--	--	--	--	--	--	--	--
10/1/03	--	ND<50	--	--	--	--	--	--	--	--
1/30/04	--	ND<5000	--	--	--	--	--	--	--	--
4/26/04	--	ND<500	--	--	--	--	--	--	--	--
7/28/04	--	ND<500	--	--	--	--	--	--	--	--
10/19/04	--	ND<250	--	--	--	--	--	--	--	--
1/5/05	--	ND<250	--	--	--	--	--	--	--	--
6/14/05	--	ND<500	--	--	--	--	--	--	--	--
9/29/05	--	ND<2500	--	--	--	--	--	--	--	--
12/2/05	--	ND<250	--	--	--	--	--	ND<50	--	--
3/21/06	--	ND<250	--	--	--	--	--	--	--	--
5/25/06	--	ND<250	--	--	--	--	--	--	--	--
8/25/06	ND<10	ND<250	--	--	--	--	--	--	--	--
MW-4										
6/16/03	--	ND<500	--	--	--	--	--	--	--	--
7/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/1/03	--	ND<50	--	--	--	--	--	--	--	--
1/30/04	--	ND<500	--	--	--	--	--	--	--	--
4/26/04	--	ND<50	--	--	--	--	--	--	--	--

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Lead (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)
MW-4 continued										
7/28/04	--	ND<50	--	--	--	--	--	--	--	--
10/19/04	--	990	--	--	--	--	--	--	--	--
1/5/05	--	ND<50	--	--	--	--	--	--	--	--
6/14/05	--	ND<50	--	--	--	--	--	--	--	--
9/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/2/05	--	ND<250	--	--	--	--	--	ND<50	--	--
3/21/06	--	ND<250	--	--	--	--	--	--	--	--
5/25/06	--	ND<250	--	--	--	--	--	--	--	--
8/25/06	ND<10	ND<250	--	--	--	--	--	--	--	--
MW-5										
7/12/96	--	--	--	--	--	--	--	--	3.67	3.44
1/3/97	--	--	--	--	--	--	--	--	4.27	4.35
7/2/97	--	--	--	--	--	--	--	--	3.97	3.82
1/15/98	--	--	--	--	--	--	--	--	4.38	4.19
7/8/98	--	--	--	--	--	--	--	--	4.60	4.67
6/16/03	--	ND<5000	--	--	--	--	--	--	--	--
7/18/03	--	ND<2500	--	--	--	--	--	--	--	--
10/1/03	--	ND<50	--	--	--	--	--	--	--	--
1/30/04	--	ND<1000	--	--	--	--	--	--	--	--
4/26/04	--	ND<100	--	--	--	--	--	--	--	--
7/28/04	--	ND<100	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
1/5/05	--	ND<50	--	--	--	--	--	--	--	--
6/14/05	--	ND<50	--	--	--	--	--	--	--	--
9/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/2/05	--	ND<250	--	--	--	--	--	ND<50	--	--

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Lead (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)
MW-5 continued										
3/21/06	--	ND<250	--	--	--	--	--	--	--	--
5/25/06	--	ND<250	--	--	--	--	--	--	--	--
8/25/06	ND<10	ND<250	--	--	--	--	--	--	--	--
MW-6										
6/16/03	--	ND<500	--	--	--	--	--	--	--	--
7/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/1/03	--	ND<50	--	--	--	--	--	--	--	--
1/30/04	--	ND<500	--	--	--	--	--	--	--	--
4/26/04	--	ND<50	--	--	--	--	--	--	--	--
7/28/04	--	ND<50	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
1/5/05	--	ND<50	--	--	--	--	--	--	--	--
6/14/05	--	ND<50	--	--	--	--	--	--	--	--
9/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/2/05	--	ND<250	--	--	--	--	--	ND<50	--	--
3/21/06	--	ND<250	--	--	--	--	--	--	--	--
5/25/06	--	ND<250	--	--	--	--	--	--	--	--
8/25/06	ND<10	ND<250	--	--	--	--	--	--	--	--
MW-7										
5/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
8/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
MW-8										
5/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
8/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
MW-9										

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Lead (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)
MW-9 continued										
5/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
8/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
MW-10										
5/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
8/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
RW-1										
5/24/02	ND<10	ND<50	ND<0.5	ND<0.5	ND<2	ND<1	ND<1	--	--	--
6/16/03	--	ND<500	--	--	--	--	--	--	--	--
7/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/1/03	--	ND<50	--	--	--	--	--	--	--	--
1/30/04	--	ND<2500	--	--	--	--	--	--	--	--
4/26/04	--	ND<250	--	--	--	--	--	--	--	--
7/28/04	--	ND<250	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
1/5/05	--	ND<50	--	--	--	--	--	--	--	--
6/14/05	--	ND<50	--	--	--	--	--	--	--	--
9/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/2/05	--	ND<250	--	--	--	--	--	ND<50	--	--
3/21/06	--	ND<250	--	--	--	--	--	--	--	--
5/25/06	--	ND<250	--	--	--	--	--	--	--	--
8/25/06	ND<10	ND<250	--	--	--	--	--	--	--	--

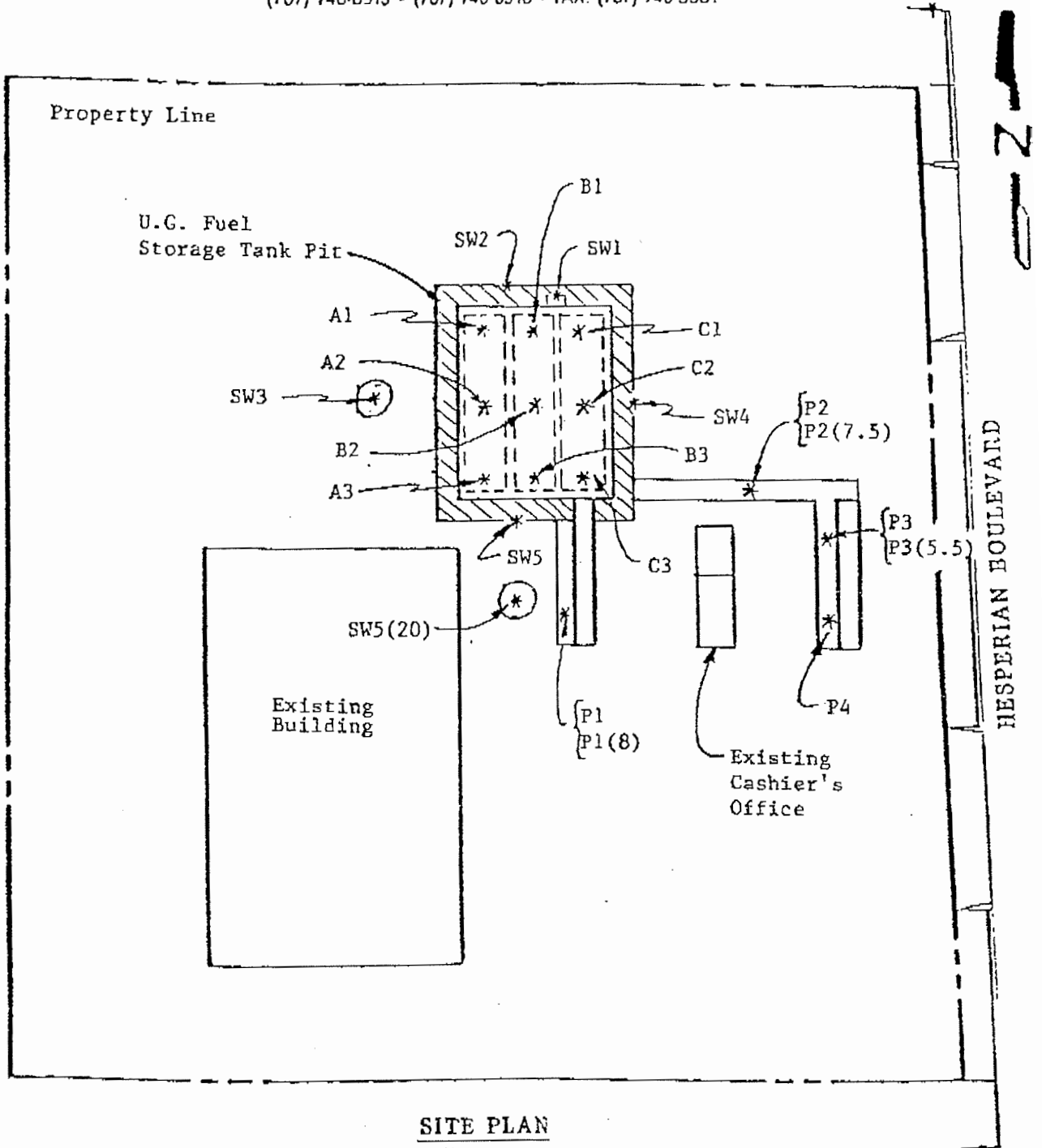
APPENDIX E
HISTORICAL FIGURES

No Further Action Required (NFAR) Report and Request for Site Closure
ConocoPhillips
76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California
77CP.01631.11.1222
November 6, 2006



KAPREALIAN ENGINEERING, INC.
Consulting Engineers

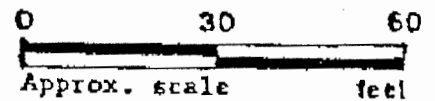
P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581



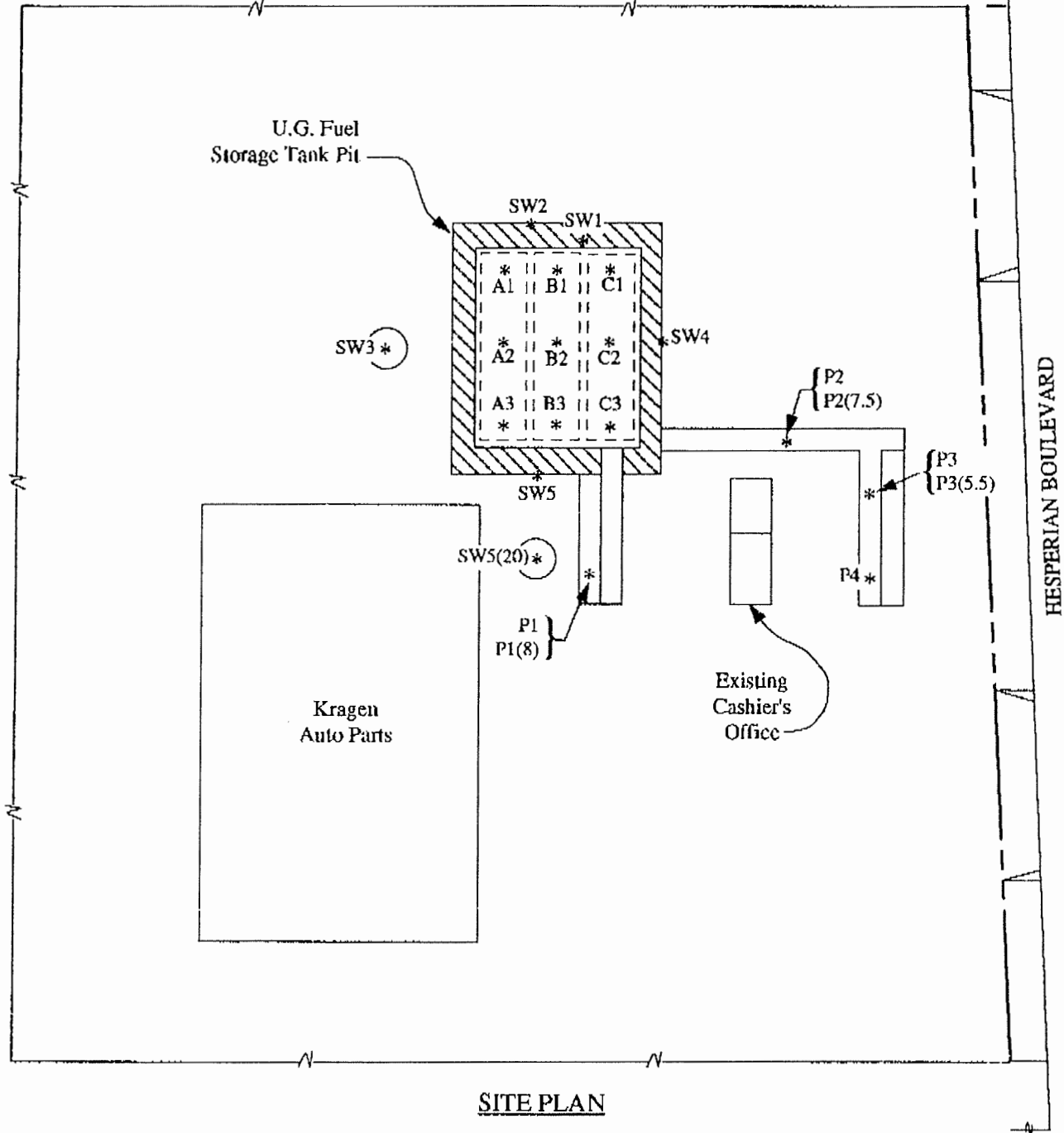
SITE PLAN
Figure 2

LEGEND

- * Sample Point Location
- ▨ Area of Additional Excavation




Unocal S/S #7004
15599 Hesperian Boulevard
San Leandro, CA

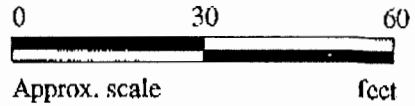


SITE PLAN

LEGEND

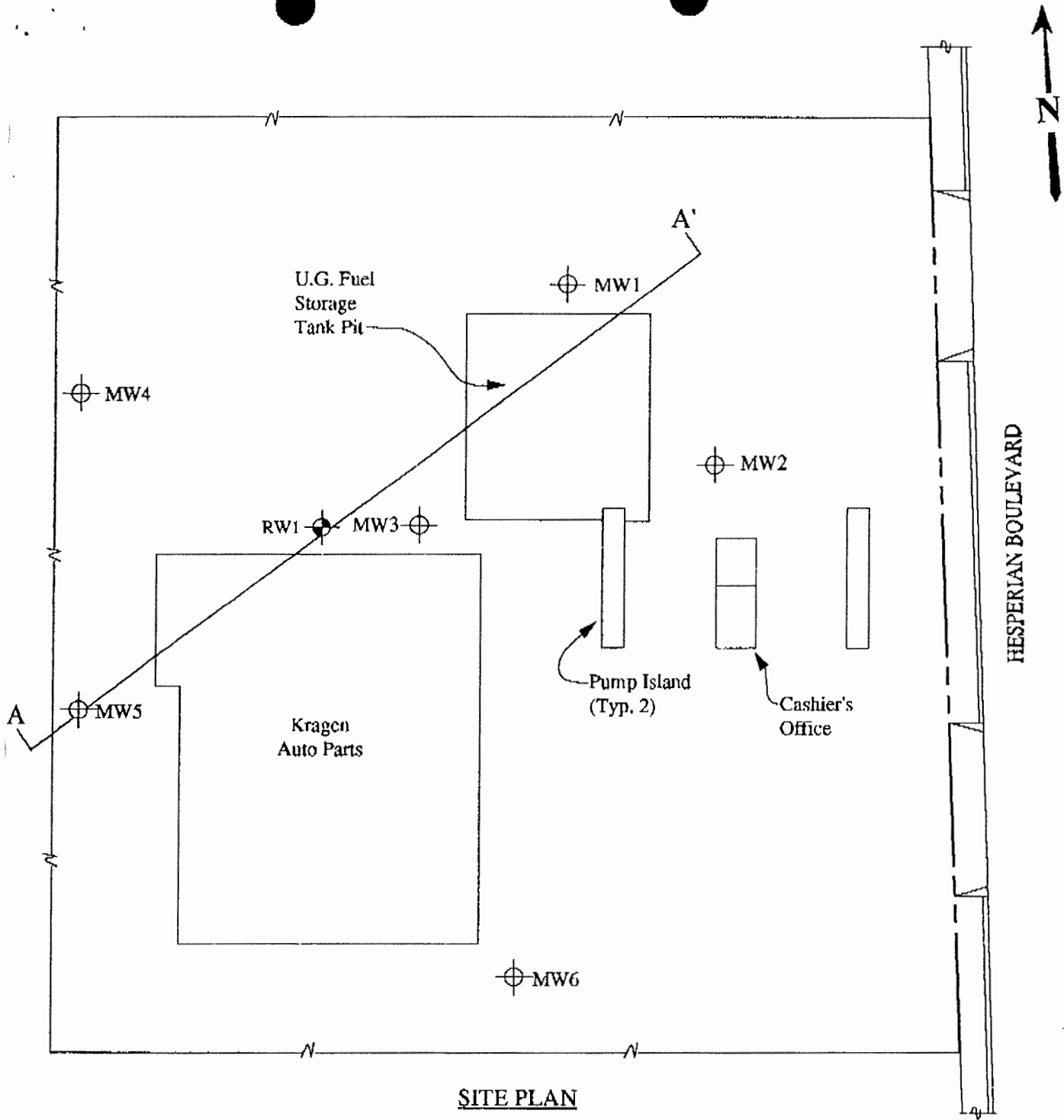
* Sample Point Location

 Area of Additional Excavation



UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA

FIGURE
2

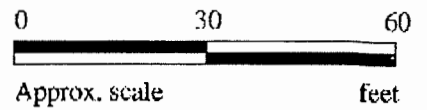


SITE PLAN

LEGEND

- ⊕ Monitoring Well
- Recovery well

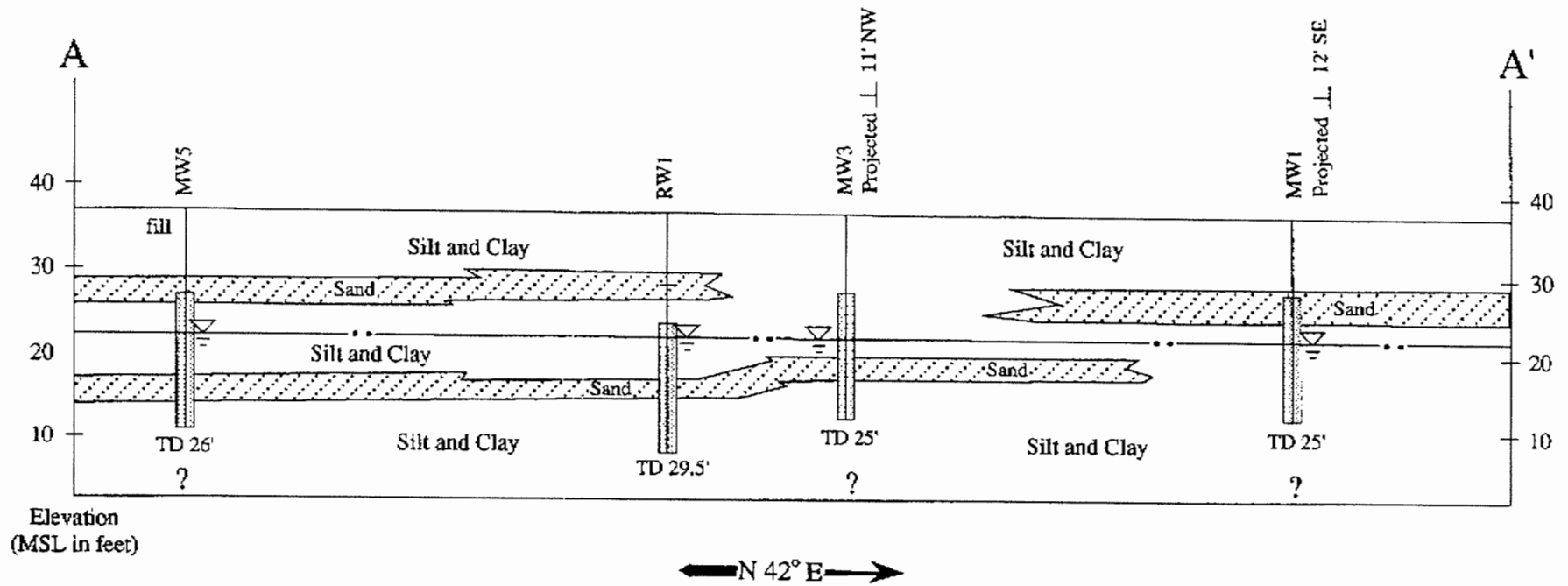
A A' Location of Cross-Section A-A'





**KAPREALIAN ENGINEERING
INCORPORATED**

**UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA**

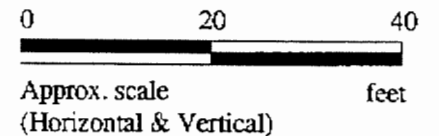
**FIGURE
5**



LEGEND

-  Screened interval of well
-  Ground water elevation in feet above Mean Sea Level on 5/19/92

Approved by:

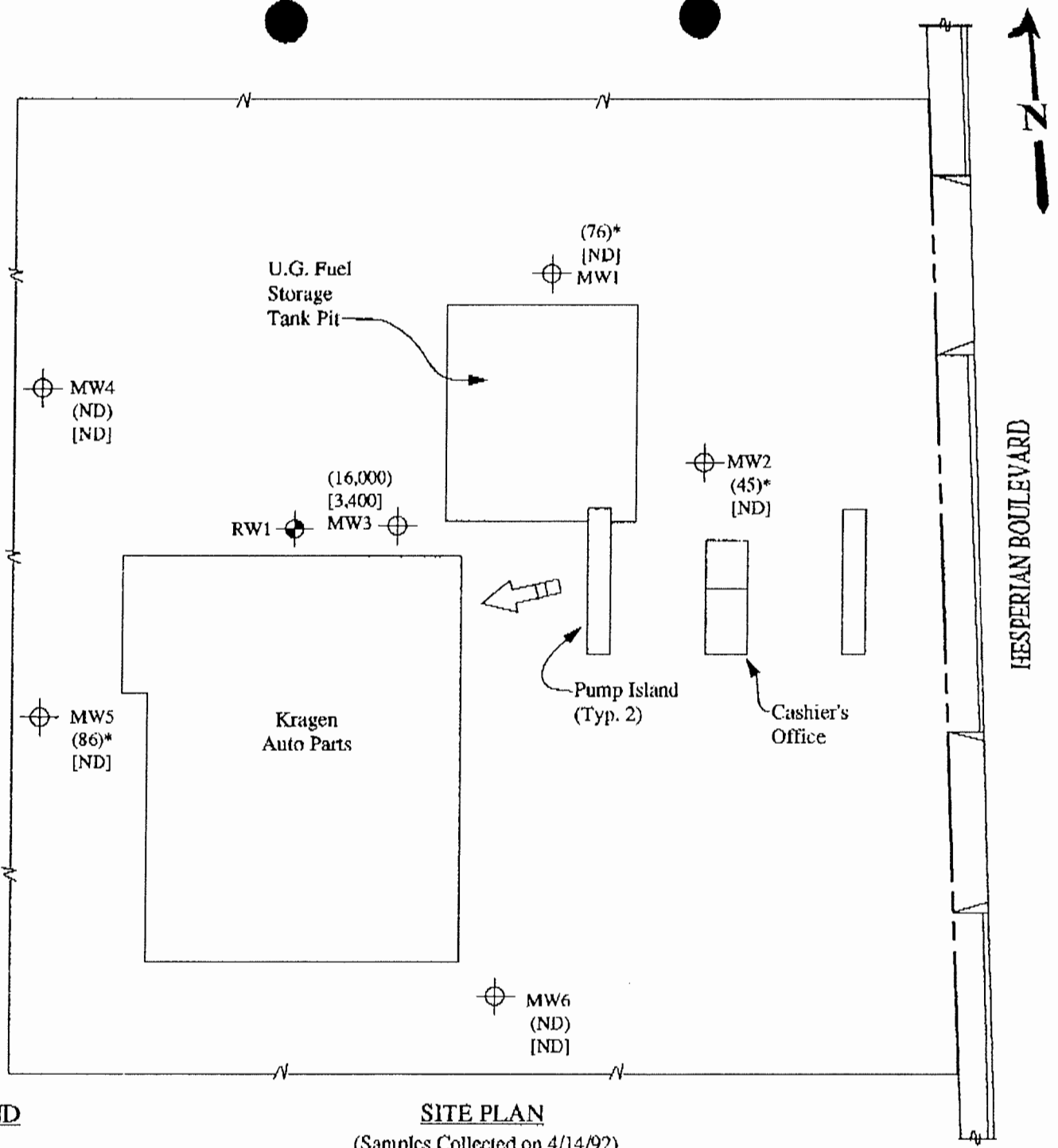


GEOLOGIC CROSS-SECTION A-A'



**UNOCAL SERVICE STATION #7004
 15599 HESPERIAN BLVD.
 SAN LEANDRO, CALIFORNIA**

**FIGURE
 4**

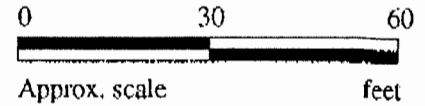


LEGEND

SITE PLAN

(Samples Collected on 4/14/92)

- ⊕ Monitoring Well
- ⊙ Recovery well
- () Concentrations of TPH as gasoline in ppb
- [] Concentrations of benzene in ppb
- ➡ Direction of ground water flow

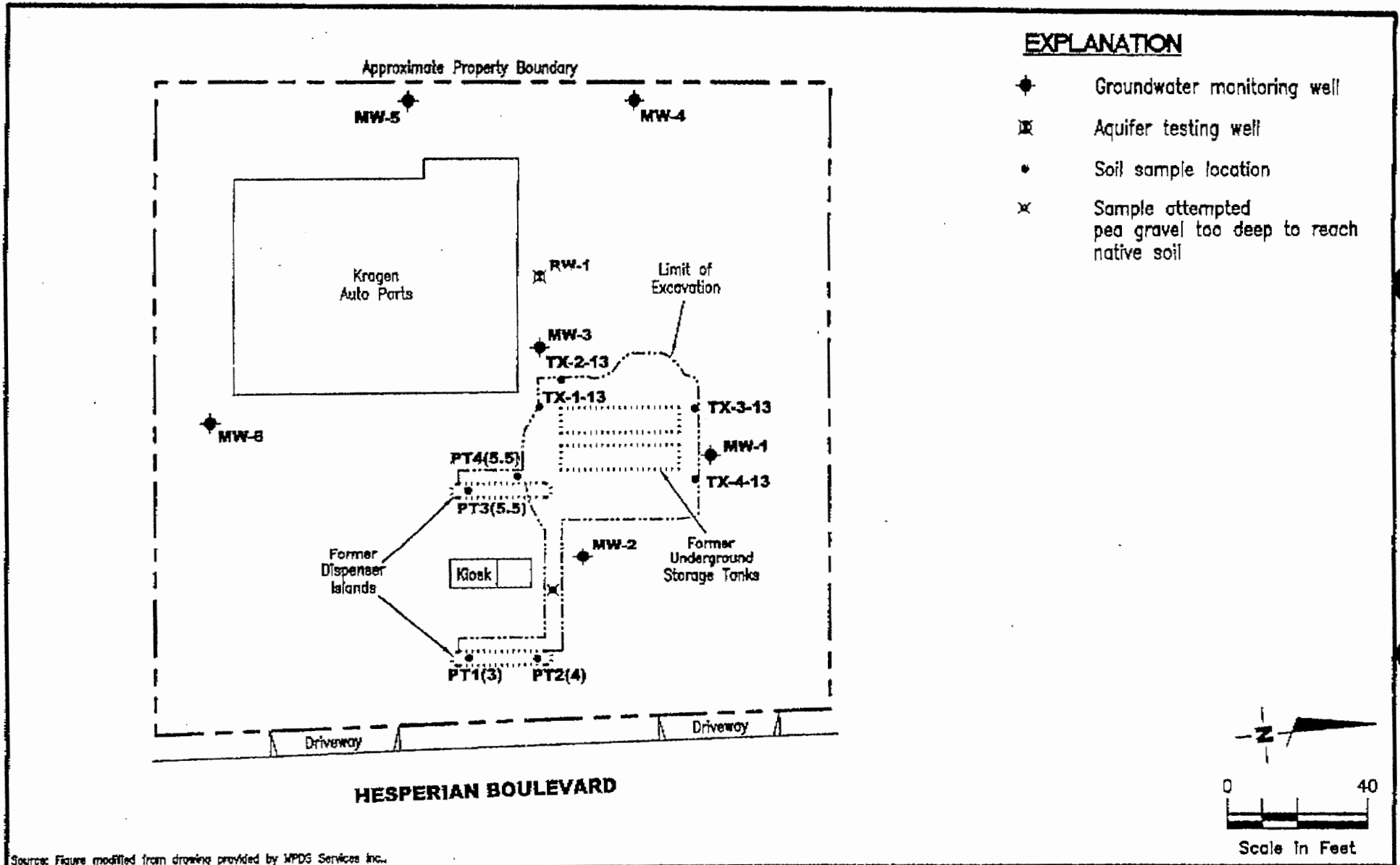


* The lab reported that "the samples do not appear to contain gasoline."



**UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA**

**FIGURE
1c**



Source: Figure modified from drawing provided by MPDS Services Inc.



Gettler - Ryan Inc.

5747 Sierra Ct., Suite J
Dublin, CA 94568 (925) 551-7555

SITE PLAN
Former Tosco (76) Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

FIGURE

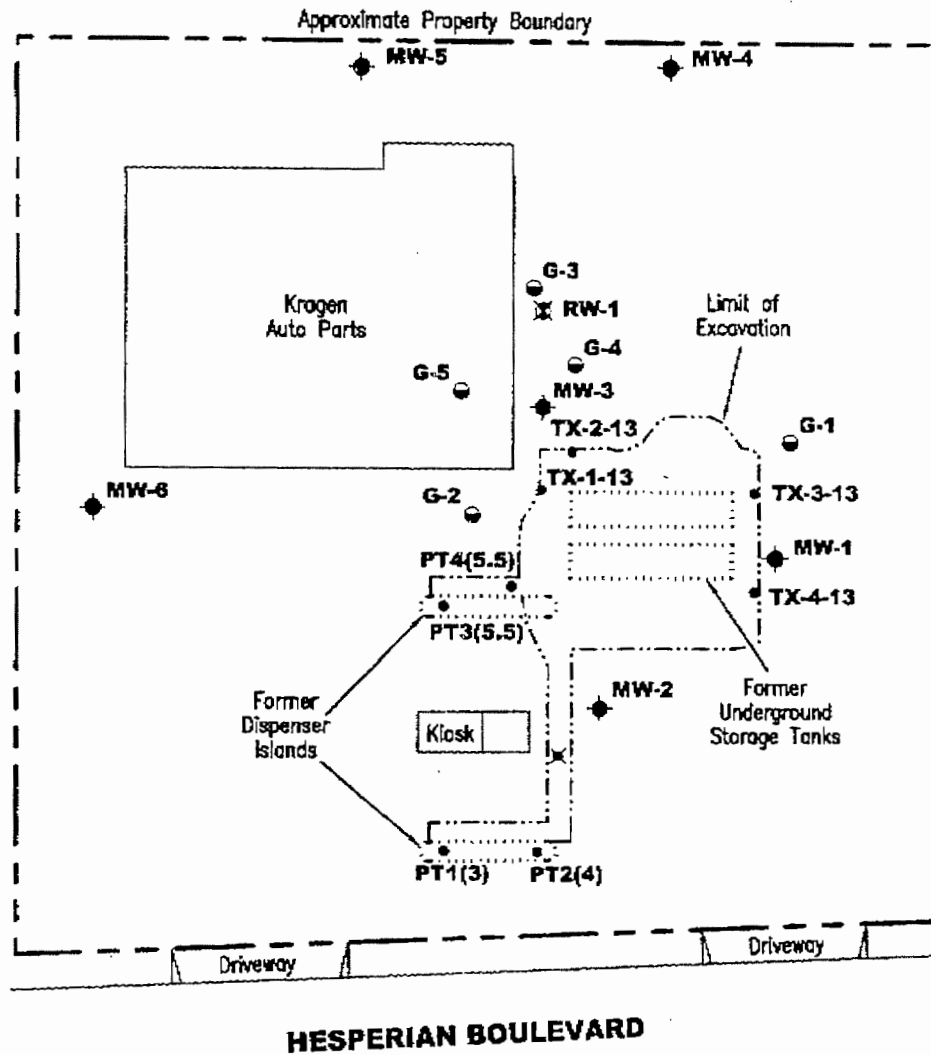
2

PROJECT NUMBER
140106

REVIEWED BY

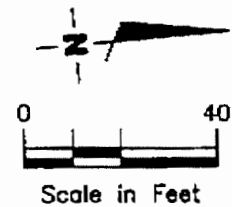
DATE
8/00

REVISED DATE



EXPLANATION

- ◆ Groundwater monitoring well
- ⊠ Aquifer testing well
- Soil sample location
- ⊗ Sample attempted
pea gravel too deep to reach
native soil
- Geoprobe boring



Source: Figure modified from drawing provided by MPDS Services Inc..

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 Dublin, CA 94568 (925) 551-7555

SITE PLAN
 Former Tosco (76) Service Station No. 7004
 15599 Hesperian Boulevard
 San Leandro, California

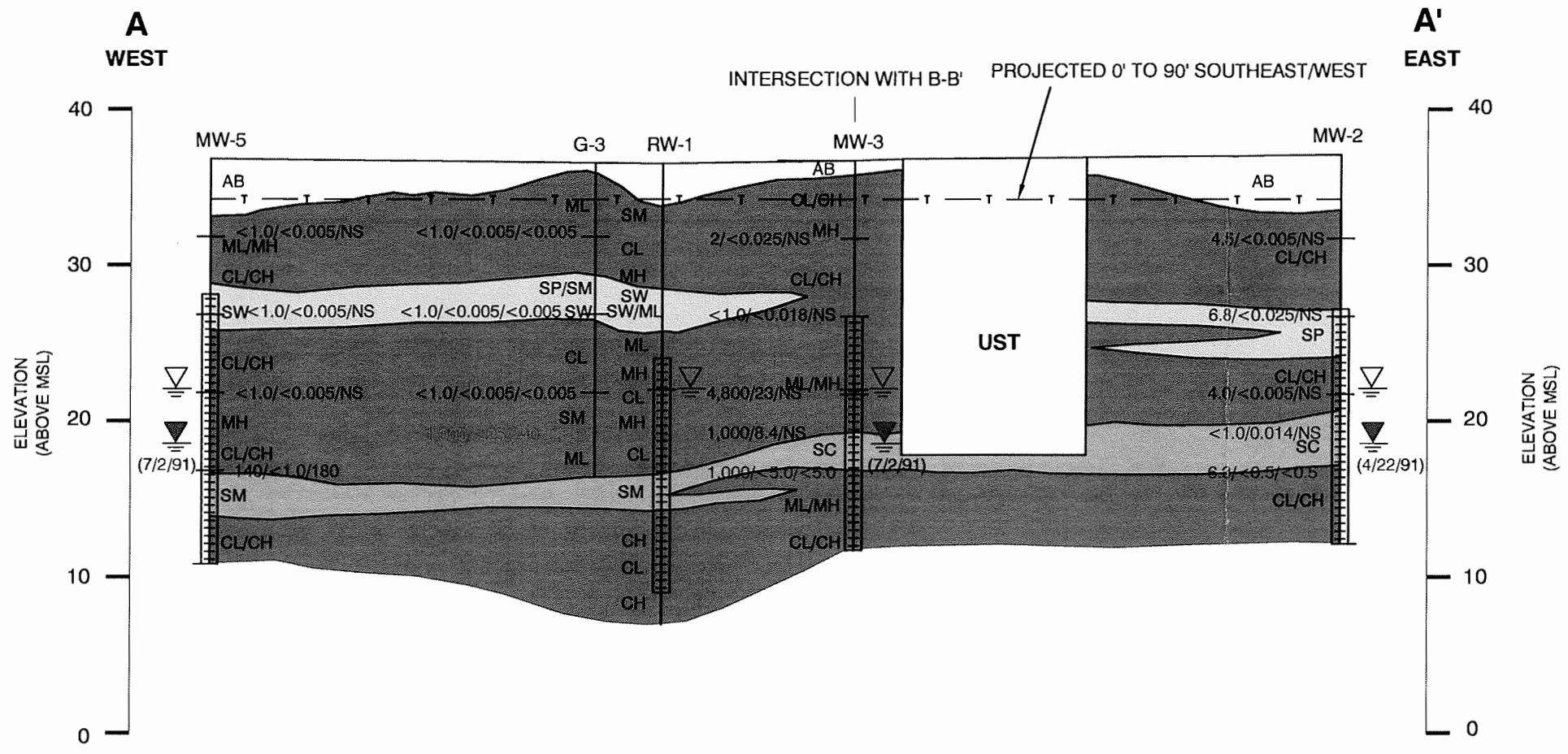
FIGURE
2

PROJECT NUMBER
 140106.06

REVIEWED BY

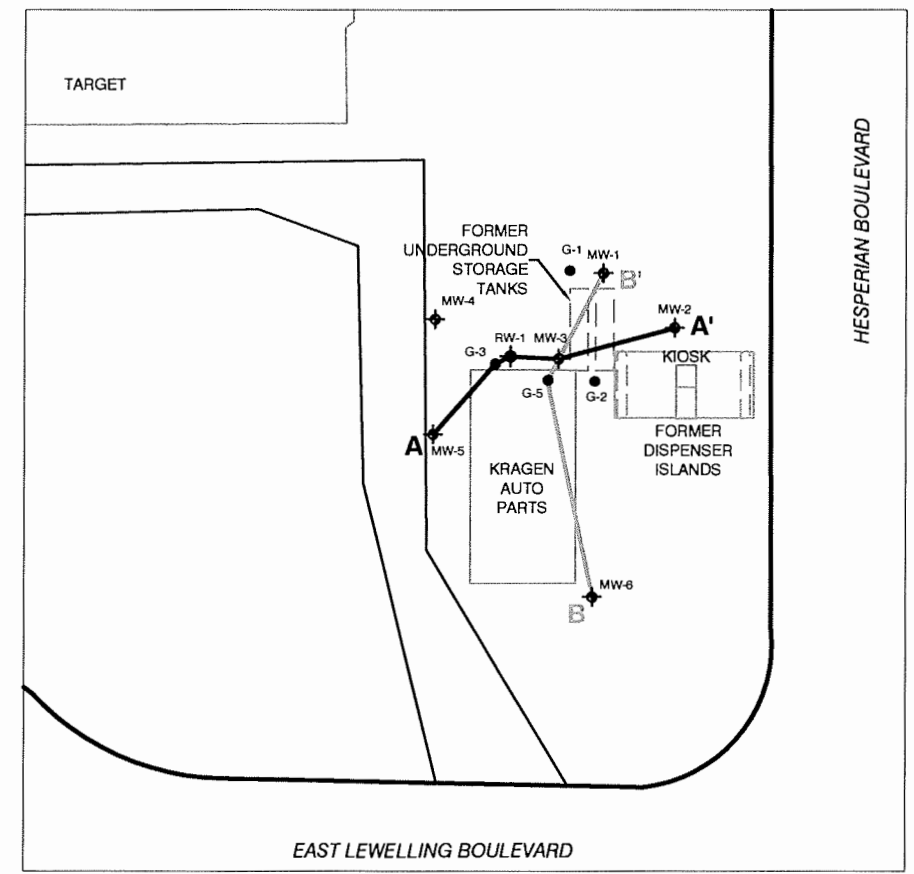
DATE
 10/02

REVISED DATE

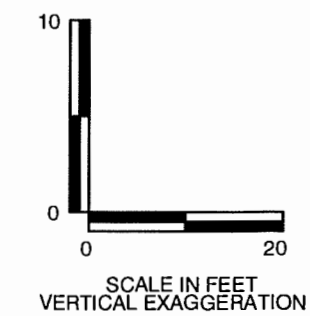


- LEGEND:**
- T — TELEPHONE LINE
 - ~ INTERPRETED SOIL STRATIGRAPHIC BOUNDARY
 - | | | |
|--|-----------------------------------|-------------------------|
| | <math><10/<1/<0.005/<0.005</math> | SOIL SAMPLE |
| | | TPHg/BENZENE/MIBE |
| | | IN mg/kg |
| | NA/2,400/8.9/2.5 | WATER SAMPLE |
| | | TPHg/BENZENE/MIBE |
| | | IN ppb |
| | 1,000/<25/<240 | GRAB GROUNDWATER SAMPLE |
| | | TPHg/BENZENE/MIBE |
| | | IN ppb |
 - | | |
|--|--|
| | SCREENED INTERVAL FOR MONITORING WELLS |
|--|--|
 - LPH LIQUID PHASE HYDROCARBONS
 - TPHd TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 - TPHg TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - MtBE METHYL TERT-BUTYL ETHER
 - ND NOT DETECTED ABOVE LABORATORY DECTION LIMITS
 - NA NOT ANALYZED
 - MSL MEAN SEA LEVEL
 - AB AGGREGATE BASE ROCK
 - | | |
|--|---|
| | CLAY AND SILT (CL,ML) |
| | SILTY SAND AND CLAYEY SAND (SM, SC, GM, GC) |
| | SAND (SW, SP, GW, GP) |
 - | | |
|---|--|
| ▽ | DEPTH TO FIRST WATER (DURING DRILLING) |
| ▽ | DEPTH TO STATIC WATER (DATE) |

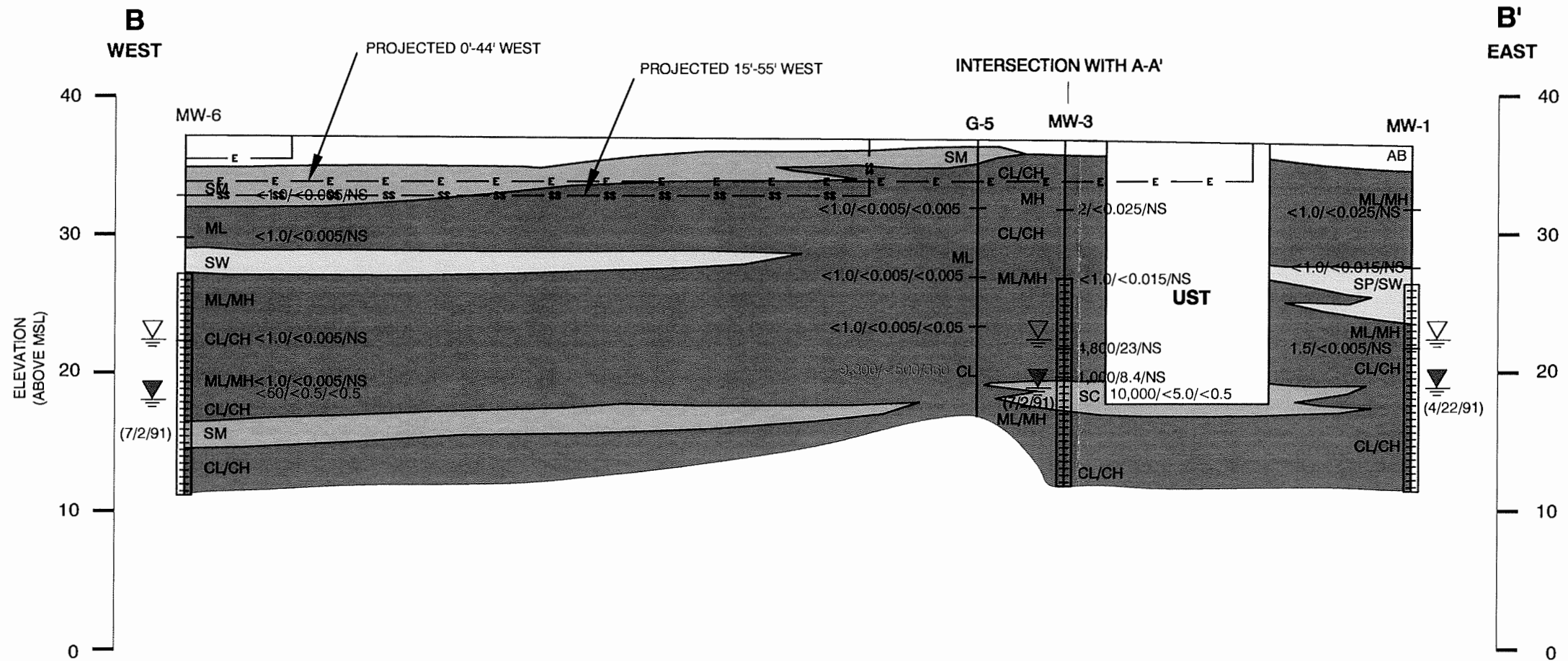
Color fig



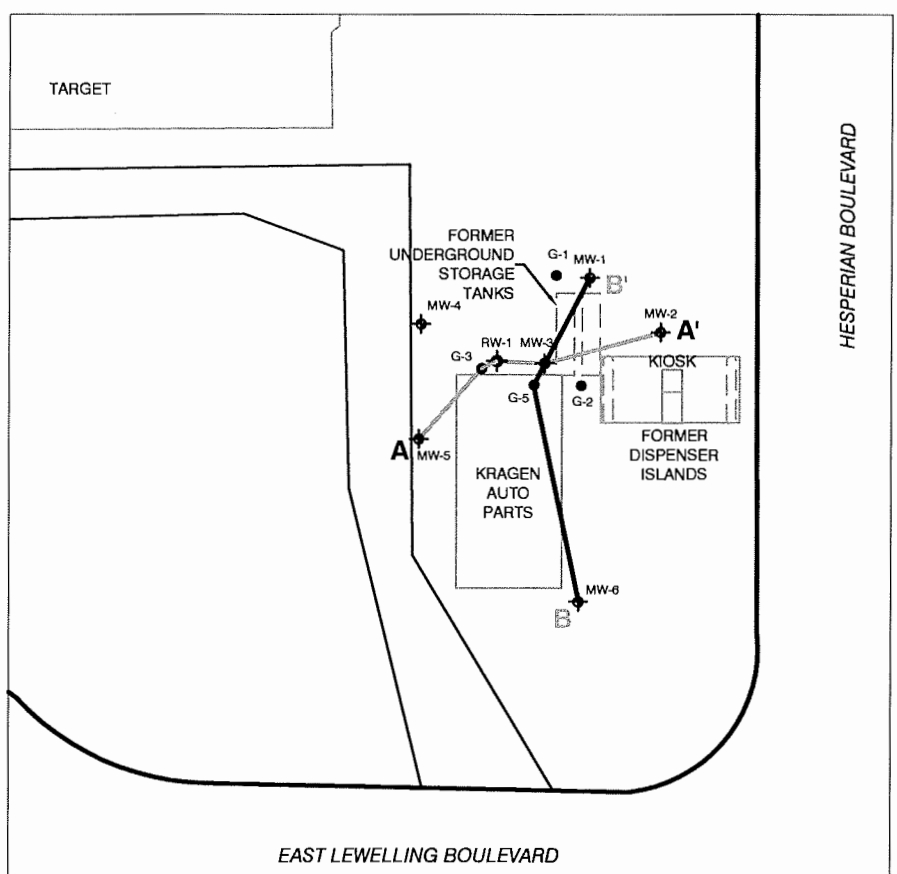
CROSS-SECTION LOCATION MAP (1" = 100')



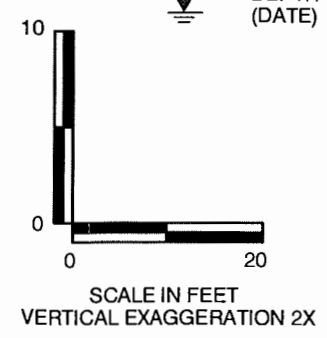
 SECOR <small>3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)</small>	FOR: CONOCOPHILLIPS FORMER 76 SERVICE STATION #7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA		GENERALIZED GEOLOGIC CROSS-SECTION A-A'		FIGURE: 4
	JOB NUMBER: 77CP.7004.03	DRAWN BY: RT	CHECKED BY: TN	APPROVED BY: TP	DATE: 3/23/05



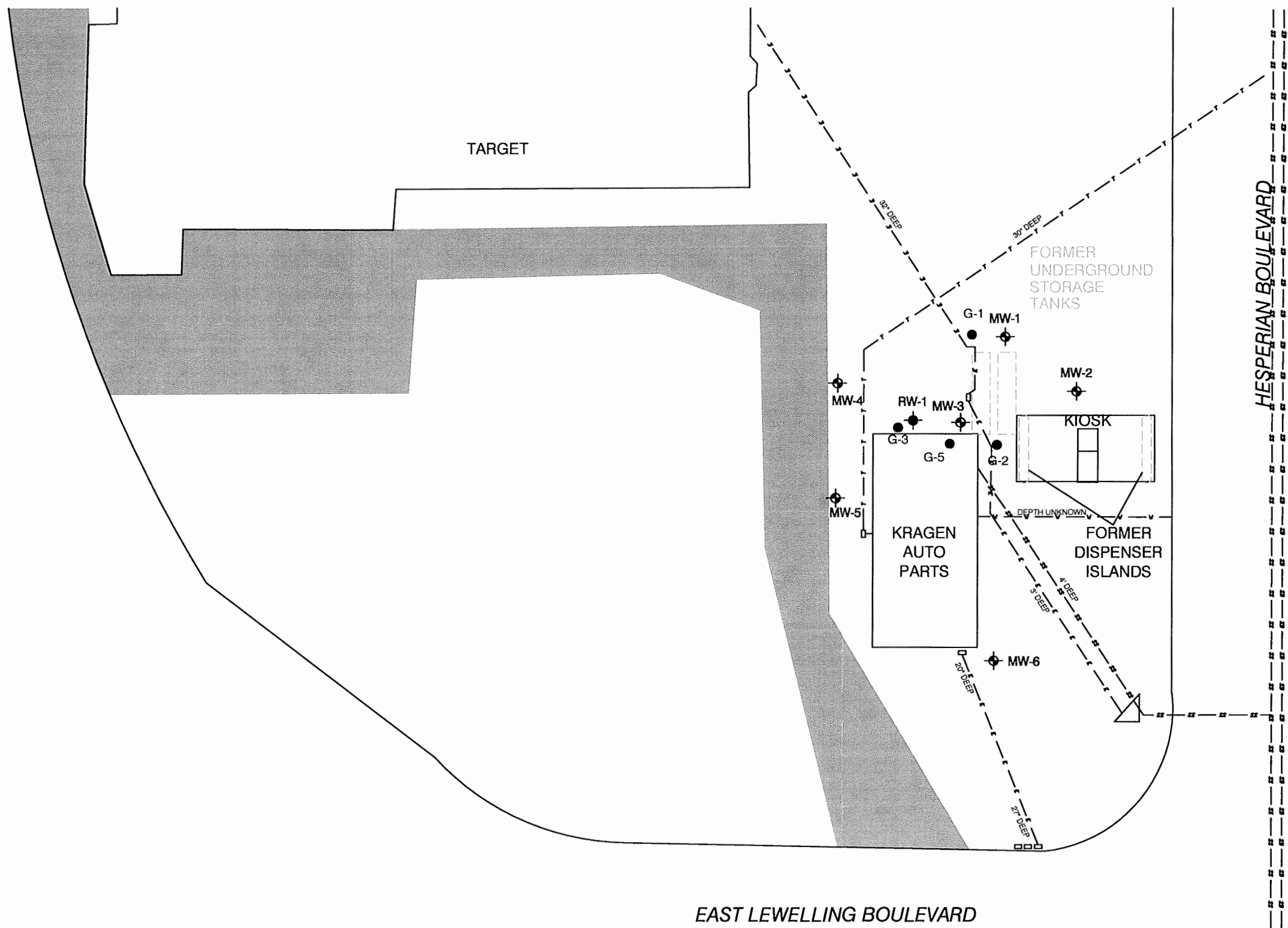
- LEGEND:**
- ss — SEWER LINE
 - e — ELECTRIC LINE
 - INTERPRETED SOIL STRATIGRAPHIC BOUNDARY
 - SOIL SAMPLE TPHg/BENZENE/MIBE IN mg/kg
<10/<1/<0.005/0.005
 - WATER SAMPLE TPHg/BENZENE/MIBE IN ppb
NA/2,400/8.9/2.5
 - GRAP GROUNDWATER SAMPLE TPHg/BENZENE/MIBE IN ppb
9,300/<500/360
 - SCREENED INTERVAL FOR MONITORING WELLS
 - LPH LIQUID PHASE HYDROCARBONS
 - TPHd TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 - TPHg TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - MIBE METHYL TERT-BUTYL ETHER
 - ND NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
 - NA NOT ANALYZED
 - MSL MEAN SEA LEVEL
 - AB AGGREGATE BASE ROCK
 - CLAY AND SILT (CL,ML)
 - SILTY SAND AND CLAYEY SAND (SM,SC)
 - SAND (SW,SP)
 - DEPTH TO FIRST WATER (DURING DRILLING)
 - DEPTH TO STATIC WATER (DATE)



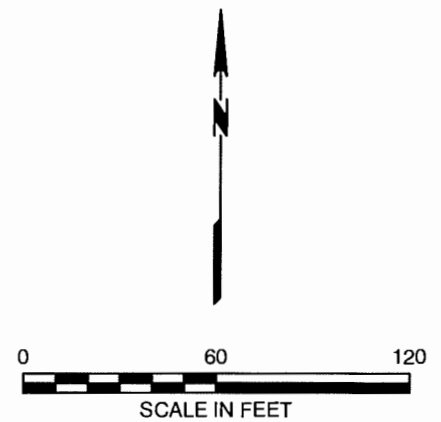
CROSS-SECTION LOCATION MAP (1" = 100')



 SECOR 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)	FOR: CONOCOPHILLIPS FORMER 76 SERVICE STATION #7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA	GENERALIZED GEOLOGIC CROSS-SECTION B-B'		FIGURE: 5
	JOB NUMBER: 77CP.7004.03	DRAWN BY: RT	CHECKED BY: TN	APPROVED BY: TP



- LEGEND:**
- GROUNDWATER MONITORING WELL
 - AQUIFER TESTING WELL
 - TELEPHONE LINE
 - ELECTRIC POWER LINE
 - SANITARY SEWER LINE (6 FEET bgs)
 - STORM DRAIN LINE (7 FEET bgs)
 - WATER LINE
 - HEAVY DUTY PAVEMENT



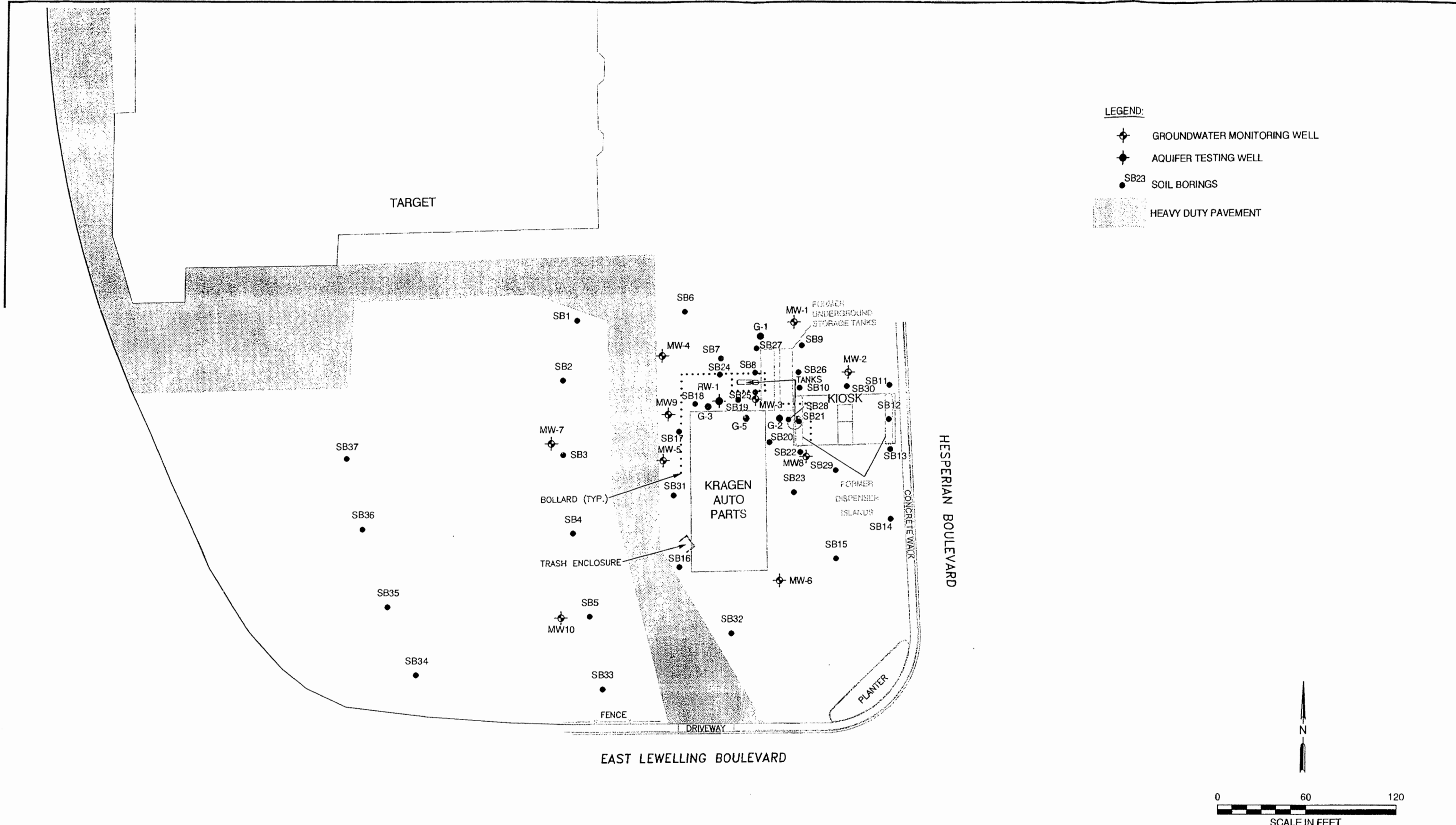
DRAWN BY: PR
 CHECKED: TP
 APPROVED: TP
 DATE: 5/3/05 DWR
 JOB NO.: 77CP.67004.03
 CAD FILE: EXTENDED

PREPARED BY:


SECOR
 3017 KILGORE ROAD, SUITE 100
 RANCHO CORDOVA, CA 95670

PREPARED FOR:
CONOCOPHILLIPS
 FORMER 76
 SERVICE STATION #7004
 15599 HESPERIAN BOULEVARD
 SAN LEANDRO, CALIFORNIA

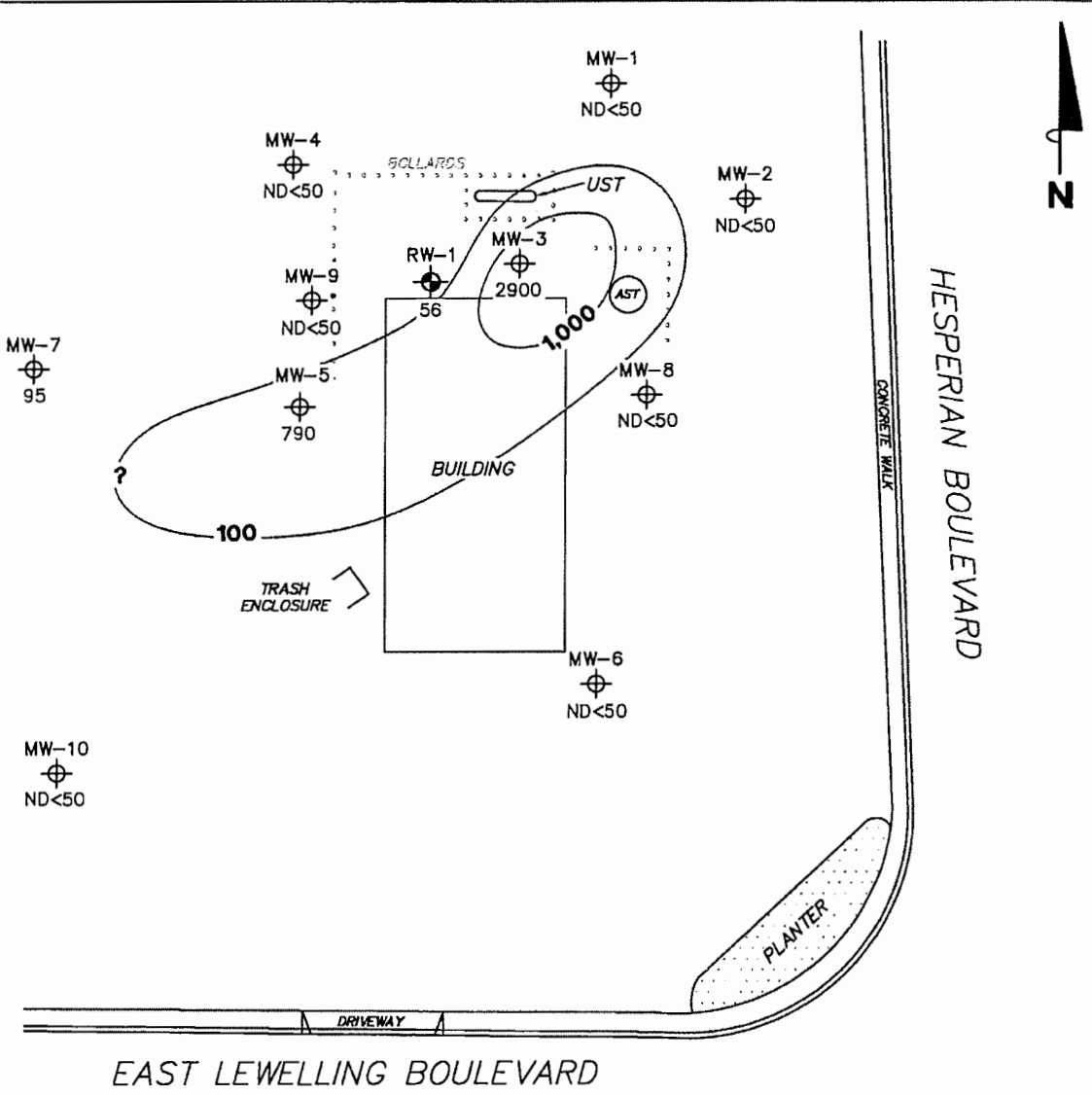
FIGURE 2
 SITE MAP WITH
 UTILITY LOCATIONS



REFERENCE: THIS FIGURE IS BASED ON A MAP PROVIDED BY MORROW SURVEYING

 <p>3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)</p>	FOR: FORMER 76 SERVICE STATION NO. 7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA		SITE PLAN		FIGURE: 2
	JOB NUMBER: 77CP.67004.00	DRAWN BY: DWR			

PS=1:50 7004-003 L:\Graphics\Projects\ByNumber\20-xxxx\20-0400(Unocal\MS)\x-7000\7004\7004+1\7004QMS(NEW).DWG Sep 19, 2006 - 5:54pm lwinters



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. TPH-G (GC/MS) = total petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B. $\mu\text{g/l}$ = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank.

LEGEND

- MW-6 Monitoring Well with Dissolved-Phase TPH-G (GC/MS) Concentration ($\mu\text{g/l}$)
- RW-1 Aquifer Testing Well
- 1,000 Dissolved-Phase TPH-G (GC/MS) Contour ($\mu\text{g/l}$)

**DISSOLVED-PHASE
TPH-G (GC/MS)
CONCENTRATION MAP
August 25, 2006**

Former 76 Station 7004
15599 Hesperian Boulevard
San Leandro, California

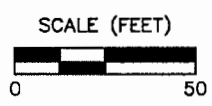
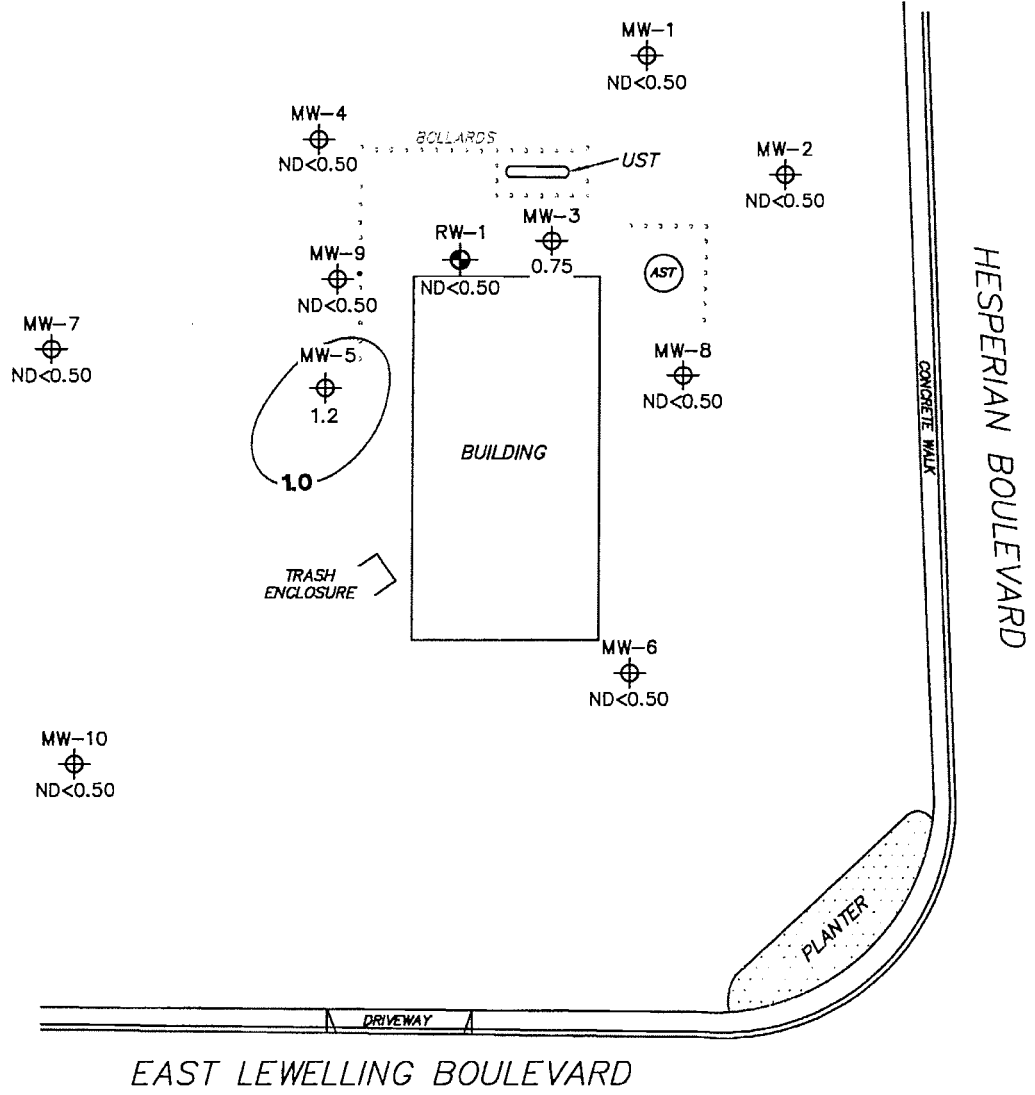


FIGURE 3

PS=i:50 7004-003 L:\Graphics\Projects\Number\20-xxxx\20-0400(UnocalGMS)\x-7000\7004+7004GMS(NEW).DWG Sep 19, 2006 - 5:55pm Winters



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells.
 µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report.
 UST = underground storage tank.

LEGEND

- MW-6 ⊕ Monitoring Well with Dissolved-Phase Benzene Concentration (µg/l)
- RW-1 ⊕ Aquifer Testing Well
- 1.0- Dissolved-Phase Benzene Contour (µg/l)

DISSOLVED-PHASE BENZENE CONCENTRATION MAP
 August 25, 2006

Former 76 Station 7004
 15599 Hesperian Boulevard
 San Leandro, California

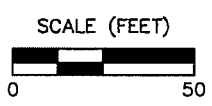
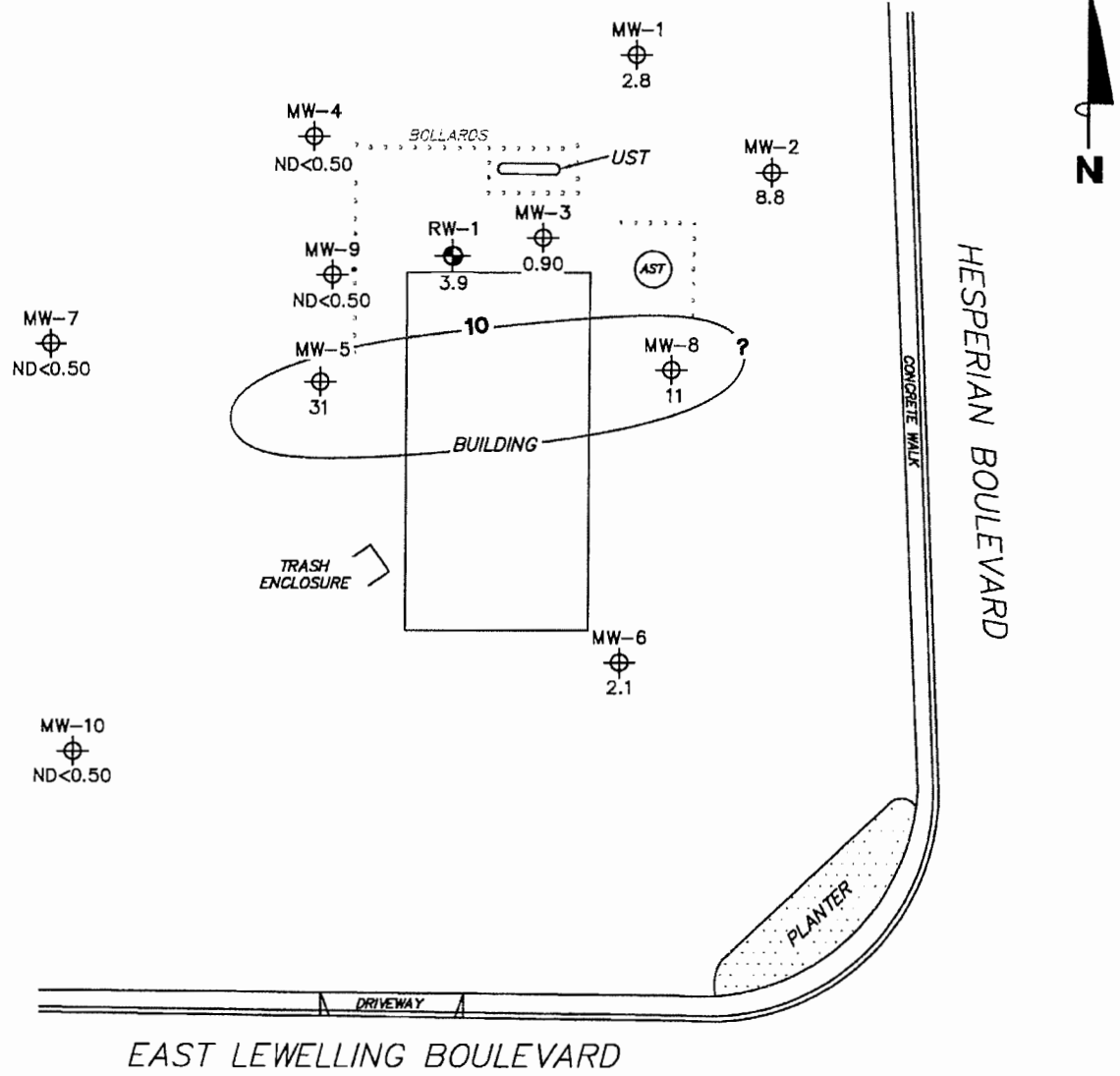


FIGURE 4

PS=1:50 7004-003 L:\Graphics\Projects\Number\20-xxxx\20-0400(UnocofGMS)\x-7000\7004+7004QMS(NEW).DWG Sep 19, 2006 - 5:54pm Iwinters



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells.
 MTBE = methyl tertiary butyl ether.
 µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Results obtained using EPA Method 8260B.

LEGEND

- MW-6 ⊕ Monitoring Well with Dissolved-Phase MTBE Concentration (µg/l)
- RW-1 ⊕ Aquifer Testing Well
- 10- Dissolved-Phase MTBE Contour (µg/l)

DISSOLVED-PHASE MTBE CONCENTRATION MAP August 25, 2006

Former 76 Station 7004
 15599 Hesperian Boulevard
 San Leandro, California

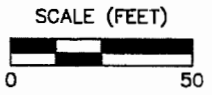


FIGURE 5

APPENDIX F
HISTORICAL WATER SUPPLY WELL SURVEY DATA
No Further Action Required (NFAR) Report and Request for Site Closure
ConocoPhillips
76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California
77CP.01631.11.1222
November 6, 2006

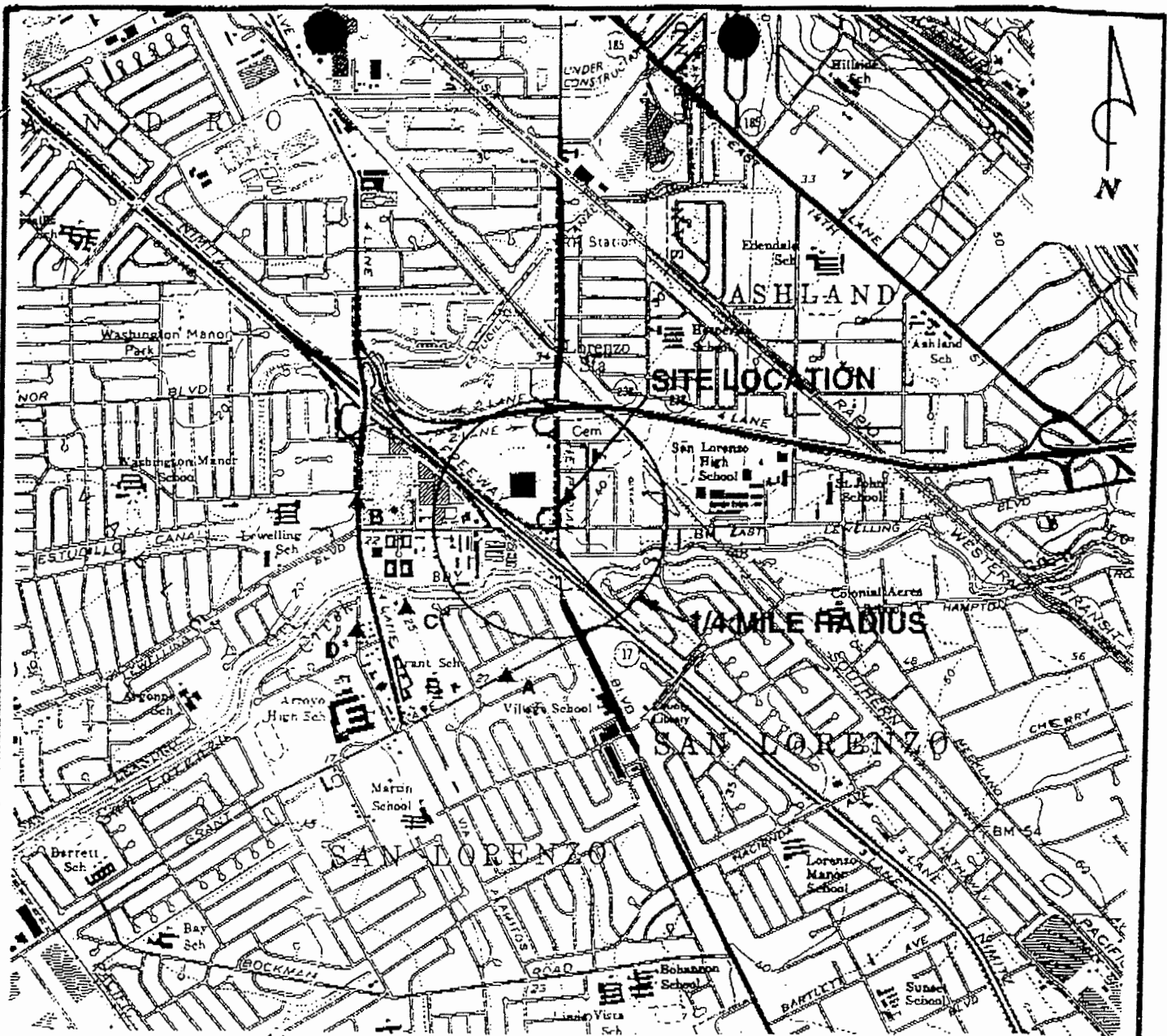
**Table 1
Results of Water Supply Well Survey**

Unocal Service Station 7004
15599 Hesperian Boulevard near Lewelling Boulevard
San Leandro, California

Well I.D.	Well Identification Number (Address) (Owner)	Year Drilled	Depth (feet)	Use
A	03S02W07M3 (754 Grant Avenue) [Paul Frink]	1977	31	Domestic/Irrigation
B	03S03W12H1 (10500 Washington Avenue) [San Lorenzo Nursery]	1957	524	Industrial
C	03S03W12J1 [A.L. Christensen]	1940	370	N/A
D	03S03W12J4 (15600 Lorenzo Avenue) [Frank Perry]	1978	80	Irrigation

N/A = Not available

Well I.D. denotes well locations, which are shown on Figure 1.



QUADRANGLE
LOCATION

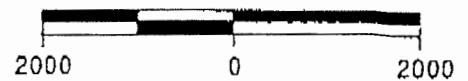
REFERENCES:

USGS 7.5 MIN. TOPOGRAPHIC MAP
TITLED: SAN LEANDRO, CALIFORNIA
DATED: 1959 REVISED: 1980
TITLED: HAYWARD, CALIFORNIA
DATED: 1959 REVISED: 1980

LEGEND

- A ▲ WATER SUPPLY WELL LOCATION AND DESIGNATION
- * WELL LOCATION APPROXIMATE. INSUFFICIENT MAP RESOLUTION AND WELL LOCATION DATA TO ACCURATELY LOCATE WELL.

SCALE IN FEET



PACIFIC
ENVIRONMENTAL
GROUP, INC.

UNOCAL SERVICE STATION 7004
15599 Hesperian Boulevard near Lewelling Boulevard
San Leandro, California

SITE LOCATION AND WELL SURVEY MAP

FIGURE:
1
PROJECT:
310-126.1A

Table 1 Well Search Data
Former Tosco Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

Map ID	Well Owner	Well Location	Well Use	Maximum Pumping Rate (gpm)	Year Installed	Depth (feet)	Screen Interval		Well Diameter (inches)	DTW (feet)
							From (feet)	To (feet)		
1	Greenwood Corporation	15803 Hesperian Boulevard	Dom	230	Dec-31	511	-	-	12	-
2	F. Goyette Machine	624 Lewelling Boulevard	Dom	-	Jul-37	75	-	-	8	-
3	San Lorenzo Unified School District	50 East Lewelling Boulevard	Dom	8	Sep-91	194	-	-	6	67

Explanation

DTW = depth to water

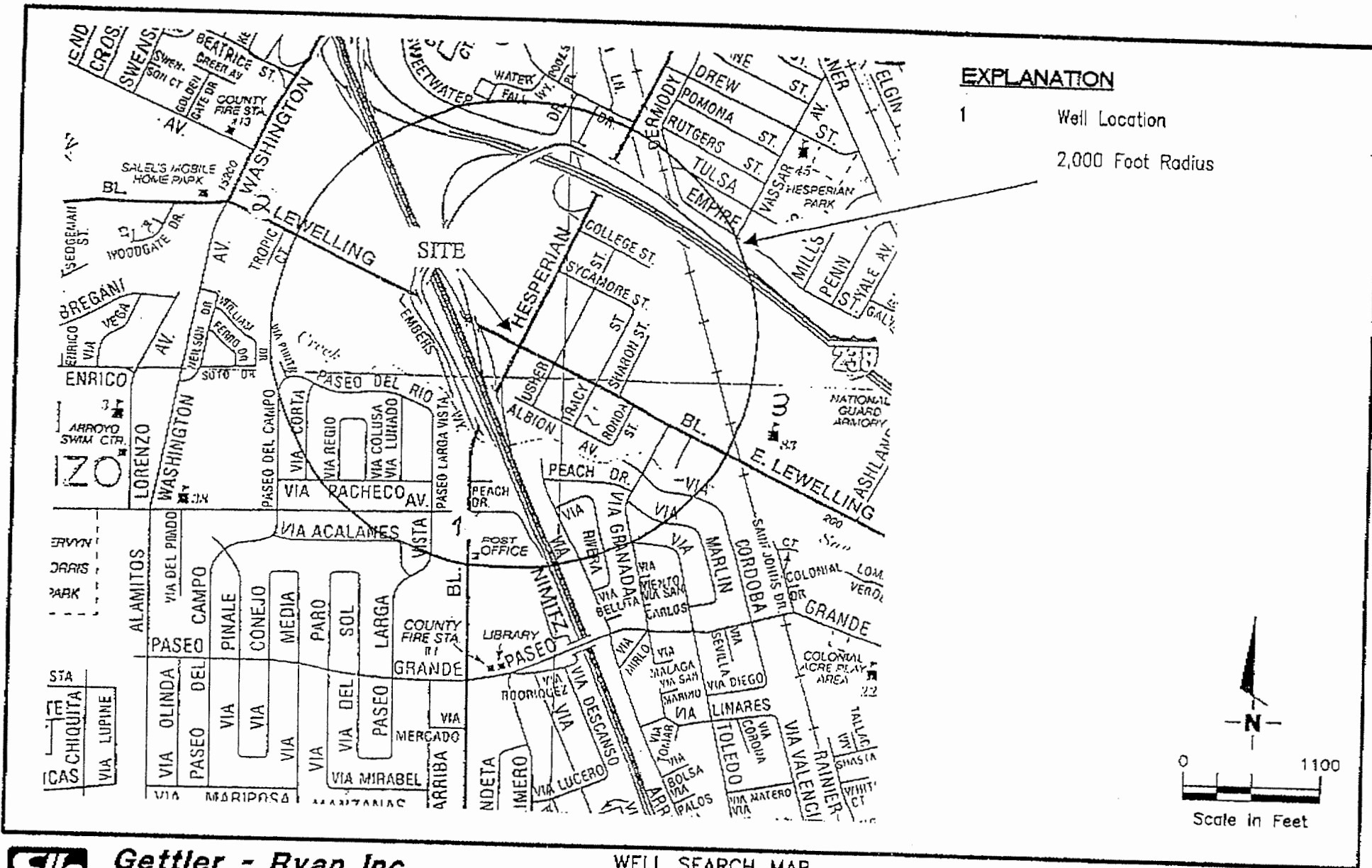
gpm = gallons per minute

Dom = Domestic

- = information not available

Township/Range/Sections: 3S/2W-3W/1G-24J

Well Search Performed by: Alameda County Public Works Agency



Gettler - Ryan Inc.

1364 North McDowell Boulevard Suite B2
 Petaluma, CA 94954 (707) 789-3255

WELL SEARCH MAP

Former Tosco Service Station No. 7004
 15599 Hesperian Boulevard
 San Leandro, California

JOB NUMBER
 140106.04

REVIEWED BY

DATE
 05/01

REVISED DATE

FILE NAME: E:\Environ\Well Search Map.dwg | Layout Tab: Site Plan

FIGURE

3

APPENDIX G
CALCULATIONS OF ESTIMATED RESIDUAL MASS IN SOIL
AND GROUNDWATER

No Further Action Required (NFAR) Report and Request for Site Closure

ConocoPhillips
76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

77CP.01631.11.1222

November 6, 2006

**APPENDIX G, TABLE 1
CALCULATION OF HYDROCARBON MASS DISSOLVED IN GROUNDWATER**

Former 76 Service Station #7004
15599 Hesperian Blvd
San Leandro, California

Notes:

- (1) These mass calculations were prepared based on analytical data presented in TRC's *Quarterly Monitoring Report - Second Quarter 2006* dated June 20, 2006, and *Quarterly Monitoring Report - Third Quarter 2006* dated October 11, 2006.
- (2) The areas of the dissolved TPHg, benzene, and MtBE plumes were estimated based on historical data and detectable concentrations of contaminants during the second and third quarter 2006. The TPHg concentration in well MW-2 during second quarter 2006, and MtBE concentrations in wells MW-1, MW-2, and MW-6 during third quarter 2006 were not used in calculations, as they were not consistent with historical data.
- (3) The average concentrations were calculated based on the sum of the detected concentrations divided by the number of detected concentrations of TPHg, benzene, and MtBE.
- (4) The areas of the dissolved TPHg, benzene, and MtBE plumes were determined based on concentrations detected during the second and third quarter 2006, and an autocad area calculation feature. Figures illustrating these areas are included in Appendix G.
- (5) The height of the water column was calculated based on the average depth to water in the wells based on historical minimum and maximum depths to water (10.01 and 16.71 feet bgs) and the average depths of the wells (25.7 feet bgs).

Average Groundwater Concentration				
		TPHg (µg/L)	Benzene (µg/L)	MtBE (µg/L)
MW-1	5/25/2006	<50	<0.50	<0.50
	8/25/2006	<50	<0.50	2.8
MW-2	5/25/2006	57	<0.50	<0.50
	8/25/2006	<50	<0.50	8.8
MW-3	5/25/2006	3,200	0.53	<0.50
	8/25/2006	2,900	0.75	0.90
MW-4	5/25/2006	<50	<0.50	<0.50
	8/25/2006	<50	<0.50	<0.50
MW-5	5/25/2006	1,100	1.5	72
	8/25/2006	790	1.2	31
MW-6	5/25/2006	<50	<0.50	<0.50
	8/25/2006	<50	<0.50	2.1
MW-7	5/25/2006	<50	<0.50	17
	8/25/2006	95	<0.50	<0.50
MW-8	5/25/2006	<50	<0.50	<0.50
	8/25/2006	<50	<0.50	11
MW-9	5/25/2006	54	<0.50	10
	8/25/2006	<50	<0.50	<0.50
MW-10	5/25/2006	<50	<0.50	3.9
	8/25/2006	<50	<0.50	<0.50
RW-1	5/25/2006	930	<0.50	7.6
	8/25/2006	56	<0.50	3.9
		1141	1.00	17.5

Plume Size:

Area of Average TPHg Plume = 13,450 ft²
 Area of Average Benzene Plume = 1,970 ft²
 Area of Average MtBE Plume = 20,180 ft²

$$P = A \text{ (ft}^2\text{)} \times H \text{ (ft)} \times N \times (7.481 \text{ gallons/ft}^3\text{)} \times (3.785 \text{ liters/ gallon)} \times (X \text{ mg/l)} \times (\text{lb}/453,592 \text{ mg})$$

CONTAMINANT		TPHg	Benzene	MtBE
X - CONTAMINANT CONCENTRATION (mg/L)	=	1.141	9.95E-04	0.017
N - POROSITY (%)	=	0.2	0.2	0.2
A - IMPACTED AREA (ft ²)	=	13,450	1,970	20,180
H - HEIGHT OF IMPACTED AREA (ft)	=	12.35	12.35	12.35
P - POUNDS OF CONTAMINANT (lbs)	=	2.366	0.000	0.054

Estimated Total Mass of Dissolved Hydrocarbons: 2.420 pounds
Estimated Volume of Dissolved Hydrocarbons: 0.346 gallons

**APPENDIX G, TABLE 2
CALCULATIONS OF TOTAL ESTIMATED HYDROCARBON MASS IN SOIL BEFORE EXCAVATION**

Former 76 Service Station #7004
15599 Hesperian Blvd
San Leandro, California

Assumptions used for calculation below are shown on attached Back-up Calculation page.

$$P = V (\text{ft}^3) \times \text{soil density (lbs/ft}^3) \times \text{kg}/2.205(\text{lbs}) \times X (\text{mg/kg}) \times \text{lb}/453,592(\text{mg})$$

CONTAMINANT	<u>AREA 1</u> <u>TPHg</u>
X - CONTAMINANT CONCENTRATION (mg/kg) =	<u>249.88</u>
D - AVERAGE SOIL DENSITY (lbs/ft ³) =	<u>106</u>
A - IMPACTED AREA (ft ²) =	<u>6,721</u>
H - HEIGHT OF IMPACTED AREA (ft) =	<u>15.5</u>
P - POUNDS OF CONTAMINANT (lbs) =	2,758.86
Estimated Total Mass of Adsorbed:	2,759 pounds +/- 50%
Estimated Volume of Adsorbed:	376 gallons +/- 50%
TPHg Density =	7.34 lbs/gallon

CONTAMINANT	<u>AREA 1</u> <u>Benzene</u>
X - CONTAMINANT CONCENTRATION (mg/kg) =	<u>0.86</u>
D - AVERAGE SOIL DENSITY (lbs/ft ³) =	<u>106</u>
A - IMPACTED AREA (ft ²) =	<u>6,721</u>
H - HEIGHT OF IMPACTED AREA (ft) =	<u>15.5</u>
P - POUNDS OF CONTAMINANT (lbs) =	9.52
Estimated Total Mass of Adsorbed:	9.5 pounds +/- 50%
Estimated Volume of Adsorbed:	1.6 gallons +/- 50%
Benzene Density =	6.1 lbs/gallon

CONTAMINANT	<u>AREA 2</u> <u>MtBE</u>
X - CONTAMINANT CONCENTRATION (mg/kg) =	<u>0.006</u>
D - AVERAGE SOIL DENSITY (lbs/ft ³) =	<u>129</u>
A - IMPACTED AREA (ft ²) =	<u>14,022</u>
H - HEIGHT OF IMPACTED AREA (ft) =	<u>16.5</u>
P - POUNDS OF CONTAMINANT (lbs) =	0.172
Estimated Total Mass of Adsorbed:	0.17 pounds +/- 50%
Estimated Volume of Adsorbed:	0.0 gallons +/- 50%
MtBE Density =	6.18 lbs/gallon

APPENDIX G
Table 2 Back-up Mass Calculations (Soil)

Former 76 Service Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

Notes and Assumptions

Remaining mass was calculated based on historical soil data dating back to 1990, and a plume isoconcentration contour map also included in Appendix G.

Average soil concentrations were calculated using the sum of the concentrations of the samples located within the plume areas (Area 1 for TPHg and benzene and Area 2 for MtBE, Figure 1) divided by the total number of samples in the area. Height of impacted area was calculated based on the shallowest and deepest depths at which concentrations were detected.

AREA 1 & 2

Plume Area and Height of Impacted Soil Column Calculations

AREA #1= 6721 ft²

AREA #2= 14022 ft²

AREA #1 Height Calculations #1		
Top (feet bgs)	Base (feet bgs)	Height (feet)
2.5	18.0	15.5

AREA #2 Height Calculations #2		
Top (feet bgs)	Base (feet bgs)	Height (feet)
5.5	22.0	16.5

Average Concentration Calculations

Average Concentration Calculations				
Sample Number	Depth (feet bgs)	TPHg (mg/kg)	Benzene (mg/kg)	MtBE (mg/kg)
MW-1	5.0	<1.0	<0.005	--
	10.0	<1.0	<0.005	--
	16.0	1.5	<0.005	--
MW-2	5.0	4.5	0.015	--
	10.0	6.8	0.025	--
	15.5	<1.0	<0.005	--
	17.0	<1.0	0.014	--
MW-3	5.0	2.0	0.025	--
	10.0	<1.0	0.018	--
	15.0	4,800	23	--
	17.5	1,000	8.4	--
MW-4	5.0	<1.0	<0.0050	--
	10.0	<1.0	<0.0050	--
	15.0	<1.0	<0.0050	--
	17.0	<1.0	<0.0050	--
MW-5	5.0	<1.0	<0.0050	--
	10.0	<1.0	<0.0050	--
	15.0	<1.0	<0.0050	--
	17.5	<1.0	<0.0050	--
MW-6	5.0	<1.0	<0.0050	--
	10.0	<1.0	<0.0050	--
	15.0	<1.0	<0.0050	--
	17.5	<1.0	<0.0050	--
MW-7	6.0	<0.98	<0.0049	<0.0049
	10.5	<0.91	<0.0046	<0.0046
	12.5	<0.85	<0.0043	<0.0043
	24.0	<0.88	<0.0044	<0.0044
MW-8	5.5	<1.0	<0.0050	<0.0050
	11.5	<1.9	<0.0097	<0.0097
	24.5	<0.93	<0.0046	<0.0046
MW-9	6.5	<0.99	<0.0049	<0.0049
	11.0	<0.93	<0.0047	0.011
	15.0	<0.93	<0.0046	<0.0046
	25.0	<1.0	<0.0050	<0.0050
MW-10	5.5	<0.88	<0.0044	<0.0044
	10.5	<0.87	<0.0043	<0.0043
	20.5	<0.92	<0.0046	<0.0046
	24.5	<0.98	<0.0049	<0.0049

APPENDIX G
Table 2 Back-up Mass Calculations (Soil)

Former 76 Service Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

Average Concentration Calculations (cont.)

Average Concentration Calculations				
Sample Number	Depth (feet bgs)	TPHg (mg/kg)	Benzene (mg/kg)	MtBE (mg/kg)
A1	14.5	350	2.0	--
A2	14.5	480	2.4	--
A3	14.0	570	0.97	--
B1	15.0	180	0.64	--
B2	15.0	1,900	9.7	--
B3	15.0	990	6.3	--
C1	15.0	270	0.64	--
C2	15.0	1,200	4.9	--
C3	15.0	590	4.6	--
SW-1	18.0	3.7	0.21	--
SW-2	18.0	4.5	0.46	--
SW-3	18.0	4.1	0.024	--
SW-4	18.0	<1.0	0.009	--
SW-5	18.0	998	0.58	--
SW-5 (20)	18.0	30	0.054	--
P1	2.5	1400	0.22	--
P1 (8.0)	8.0	5.7	0.008	--
P2	3.0	3,900	1.1	--
P2 (7.5)	7.5	20	<0.025	--
P3	2.5	100	0.06	--
P3 (5.5)	5.5	10	0.015	--
P4	2.5	19	<0.0050	--
TX-1-13	13.0	<1.0	<0.0050	<0.050
TX-2-13	13.0	1.1	<0.0050	<0.050
TX-3-13	13.0	350	<0.25	<2.5
TX-4-13	13.0	4.1	<0.0050	<0.050
PT1 (3)	3.0	<1.0	<0.0050	<0.050
PT2 (4)	4.0	<1.0	<0.0050	<0.050
PT3 (4.5)	4.5	<1.0	<0.0050	<0.050
PT4 (5.5)	5.5	<1.0	<0.0050	<0.050
G-1	10.0	<1.0	<0.0050	<0.0050
	14.0	<100	<0.50	<0.50
G-2	5.0	<1.0	<0.0050	<0.0050
	10.0	<1.0	<0.0050	<0.0050
	14.0	<100	<0.50	<0.50
G-3	5.0	<1.0	<0.0050	<0.0050
	10.0	<1.0	<0.0050	<0.0050
	13.5	<1.0	<0.0050	0.051
G-4	10.0	<1.0	<0.0050	<0.0050
	13.0	<1.0	<0.0050	<0.0050
G-5	5.0	<1.0	<0.0050	<0.0050
	10.0	<1.0	<0.0050	<0.0050
	13.0	<100	<0.50	<0.50
SB-1	12.0	<1.0	<0.0050	<0.0050
SB-2	15.0	<1.0	<0.0050	<0.0050
	22.0	<1.0	<0.0050	<0.0050
SB-3	7.0	<1.0	<0.0050	<0.0050
	10.0	<1.0	<0.0050	<0.0050
SB-4	12.0	<1.0	<0.0050	0.012
	19.0	<1.0	<0.0050	0.008
SB-5	12.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050

APPENDIX G
Table 2 Back-up Mass Calculations (Soil)
Former 76 Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Average Concentration Calculations (cont.)

Average Concentration Calculations				
Sample Number	Depth (feet bgs)	TPHg (mg/kg)	Benzene (mg/kg)	MtBE (mg/kg)
SB-6	13.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050
SB-7	11.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050
SB-8	13.0	<1.0	<0.0050	<0.0050
	16.0	<1.0	<0.0050	<0.0050
	22.0	<1.0	<0.0050	<0.0050
SB-9	13.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050
SB-10	16.0	<1.0	<0.0050	<0.0050
	28.0	<1.0	<0.0050	<0.0050
SB-11	15.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050
SB-12	12.0	<1.0	<0.0050	<0.0050
SB-13	12.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050
SB-14	13.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050
SB-15	13.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050
SB-16	12.0	<1.0	<0.0050	<0.0050
	22.0	<1.0	<0.0050	<0.0050
SB-17	11.0	<1.0	<0.0050	0.012
SB-18	13.0	<0.0050	<0.0050	0.022
	22.0	<0.0050	<0.0050	<0.0050
SB-19	13.0	<1.0	<0.0050	<0.0050
	22.0	<1.0	<0.0050	<0.0050
SB-20	11.0	<1.0	<0.0050	<0.0050
	22.0	<1.0	<0.0050	<0.0050
SB-21	12.0	<1.0	<0.0050	<0.0050
	22.0	<1.0	<0.0050	<0.0050
SB-22	10.0	<1.0	<0.0050	<0.0050
	12.0	<1.0	<0.0050	<0.0050
	19.0	<1.0	<0.0050	<0.0050
SB-23	10.0	<1.0	<0.0050	0.011
	13.0	<1.0	<0.0050	0.011
	22.0	<1.0	<0.0050	<0.0050
SB-24	2.5	<0.99	<0.0049	<0.0049
	5.5	<0.98	<0.0049	<0.0049
	7.5	<0.97	<0.0049	<0.0049
	10.5	<0.97	<0.0048	<0.0048
	12.5	<0.97	<0.0048	<0.0048
SB-25	5.5	<0.98	<0.0049	0.008
	10.5	<0.91	<0.0046	<0.0046
	12.5	<1.0	<0.0050	<0.0050

APPENDIX G
Table 2 Back-up Mass Calculations (Soil)
Former 76 Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Average Concentration Calculations (cont.)

Average Concentration Calculations				
Sample Number	Depth (feet bgs)	TPHg (mg/kg)	Benzene (mg/kg)	MtBE (mg/kg)
SB-26	5.5	<0.99	<0.0050	<0.0050
	7.5	<0.99	<0.0049	<0.0049
	10.5	<0.98	<0.0049	<0.0049
	12.5	<0.97	<0.0048	<0.0048
SB-27	5.5	<0.97	<0.0048	<0.0048
	7.5	<0.90	<0.0045	<0.0045
	10.5	<0.97	<0.0049	<0.00489
	12.5	<0.96	<0.0048	<0.0048
	15.0	<0.95	<0.0047	<0.0047
SB-28	5.5	<0.94	<0.0047	<0.0047
	7.5	<0.93	<0.0046	<0.0046
	10.5	<0.95	<0.0048	<0.0048
	12.5	<0.95	<0.0048	<0.0048
SB-29	5.5	<0.99	<0.0050	<0.0050
	10.5	<0.99	<0.0049	<0.0049
	12.5	<0.98	<0.0049	0.008
SB-30	2.5	<170	<0.85	<0.85
	5.5	46	<0.024	<0.024
	7.5	<0.99	<0.0050	<0.0050
	10.0	<4.8	<0.024	<0.024
	12.5	<0.97	<0.0048	<0.0048
SB-31	7.0	<0.99	<0.0050	<0.0050
	11.0	<0.97	<0.0048	<0.0048
SB-32	5.5	<0.97	<0.0048	<0.0048
	7.5	<0.99	<0.0050	<0.0050
	10.5	<0.92	<0.0046	<0.0046
	12.5	<1.0	<0.0050	<0.0050
SB-33	11.0	<0.99	<0.0050	<0.0050
	14.0	<0.93	<0.0047	<0.0047
	20.0	<0.95	<0.0047	<0.0047
SB-34	9.0	<0.98	<0.0049	<0.0049
	12.0	<0.99	<0.0050	<0.0050
	19.0	<0.94	<0.0047	0.006
SB-35	7.0	<0.95	<0.0048	<0.0048
	12.0	<0.94	<0.0047	<0.0047
	19.0	<0.94	<0.0047	<0.0047
SB-36	9.0	<0.96	<0.0048	<0.0048
	10.5	<0.90	<0.0045	<0.0045
	20.0	<0.96	<0.0048	<0.0048
SB-37	7.0	<0.91	<0.0045	<0.0045
	10.5	<0.94	<0.0047	0.005
	22.0	<0.84	<0.0042	0.009
		249.88	0.86	0.006

**APPENDIX G, TABLE 3
VOLUME OF EXCAVATED SOIL**

Former 76 Service Station #7004
15599 Hesperian Blvd
San Leandro, California

Notes

The excavated volume is based on a figure included in KEI's November 26, 1990 *Soil Sampling Report* and Appendix G.

Approximate Total Volume

Approximate Values	Length (ft)	Width (ft)	Depth (ft)	Volume (ft ³)
Area 1	42	36	19	28728
Area 2	41	4	7.5	1230
Area 3	23	7	8	1288
Area 4	27	8	5.5	1188
Sum of Volume=				32434 Cubic Ft
				= 1201 Cubic Yds

Volume of Removed UST's

No. of UST's= 3
Vol of UST's= 12000 gal = 59 Cubic Yds
Total Vol of Removed UST's= 178

Volume of Excavated Soil

Volume of Excavated Soil = Sum of Total Volume - Volume of Removed USTs
= **1023** yds³

APPENDIX G, TABLE 4
Estimated Mass Removed During Excavation
And Total Estimated Mass Remaining in Soil

Former 76 Service Station #7004
 15599 Hesperian Blvd
 San Leandro, California

Notes:

The excavated volume is based on a figure included in KEI's November 26, 1990 *Soil Sampling Report*.

The specified areas below are included on a figure in Appendix G.

Average soil concentrations were calculated using the sum of the concentrations of the samples located within the excavation area divided by the number of concentrations.

UST and Product Line Excavation Soil Samples

Average Concentration Calculations		
Sample Description	TPHg (mg/kg)	Benzene (mg/kg)
A1	350	2.0
A2	480	2.4
A3	570	0.97
B1	180	0.64
B2	1900	9.7
B3	990	6.3
C1	270	0.64
C2	1200	4.9
C3	590	4.6
P1	1400	0.22
P2	3900	1.1
P3	100	0.057
P4	19	<0.0050
	919.15	2.79

Estimated Volume Removed During Excavation (EVRE)

EVRE = V (ft³) x soil density (lbs/ft³) x kg/2.205(lbs) x X (mg/kg) x lb/453,592(mg)

Note: EVRE for MtBE not calculated as excavation samples were not submitted for analysis for MtBE.

Soil Density (lbs/ft³)= 106

Contaminant= **TPHg**
 TPHg EVRE= **2690.68** pounds +/- 50% to lbs

Contaminant= **Benzene**
 Benzene EVRE= **8.18** pounds +/- 50% to lbs

Total Mass Remaining in Soil

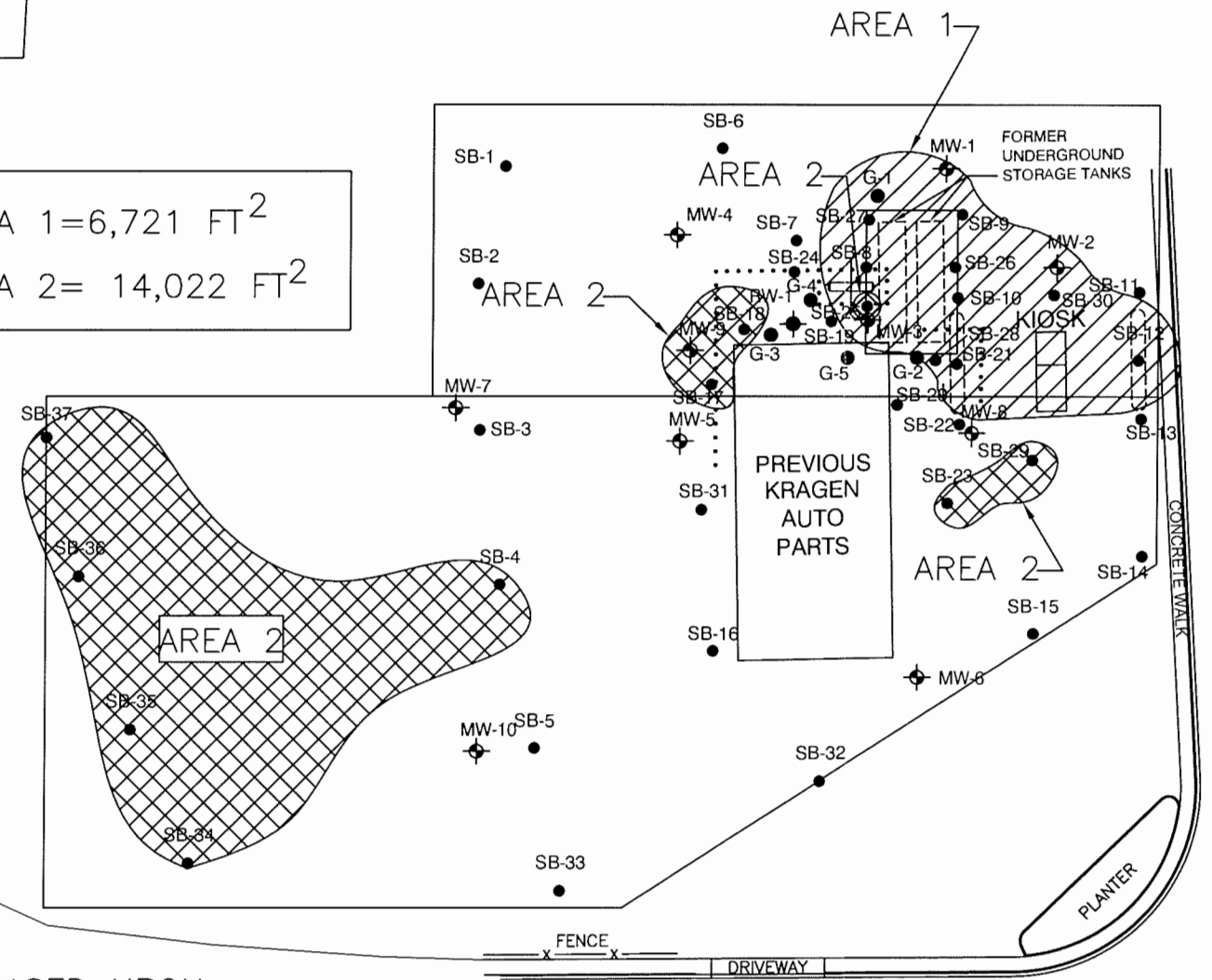
Remaining Mass = Mass of TPHg and benzene computed in Appendix G, Table 2 - TPHg and Benzene EVRE above Mass of MtBE computed in Appendix G, Table 2.

TPHg	68.18	lbs
Benzene	1.34	lbs
MtBE	0.172	lbs

LEGEND:


- ◆ GROUNDWATER MONITORING WELL
- AQUIFER TESTING WELL
- SB23 SOIL BORINGS

AREA 1=6,721 FT²
 AREA 2= 14,022 FT²






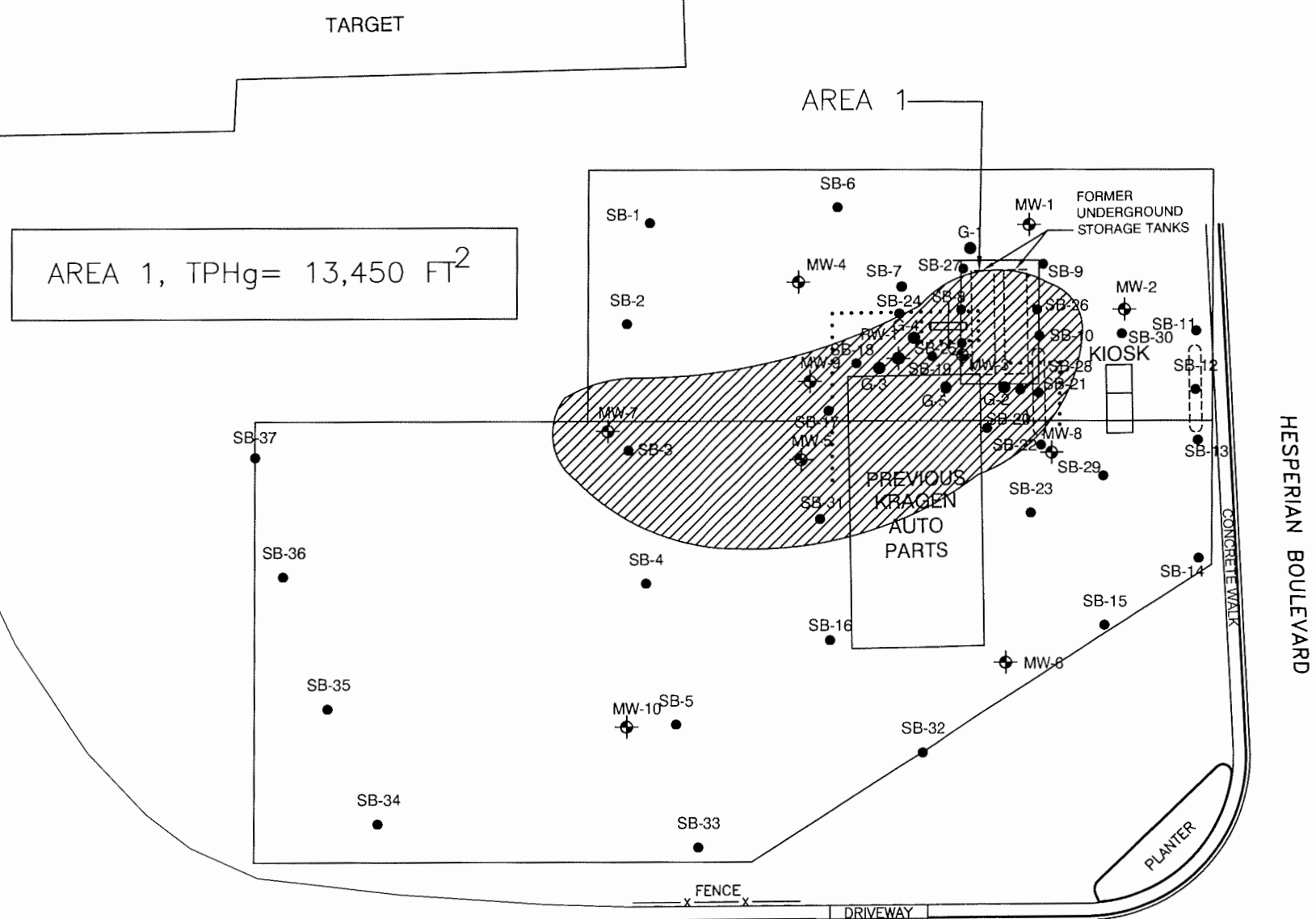
NOTE: AREA 1 CONTOUR IS BASED UPON CONCENTRATIONS OF TPHg AND BENZENE IN SOIL. AREA 2 CONTOURS ARE BASED UPON CONCENTRATIONS OF MtBE IN SOIL.

REFERENCE: THIS FIGURE IS BASED ON A MAP PROVIDED BY MORROW SURVEYING

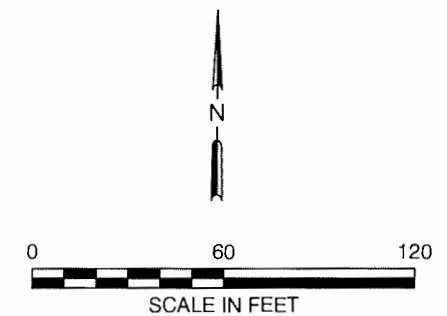
 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)	FOR: FORMER 76 SERVICE STATION NO. 7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA		APPENDIX G: SITE PLAN AREAS OF CONTAMINANTS ABSORBED TO SOIL		FIGURE: 1
	JOB NUMBER: 77CP.01631.00	DRAWN BY:	CHECKED BY: AP	APPROVED BY: AP	DATE: 10/16/06

LEGEND:


-  GROUNDWATER MONITORING WELL
-  AQUIFER TESTING WELL
-  SOIL BORINGS






NOTE: AREA IS BASED ON
2ND & 3RD QUARTER 2006
GROUNDWATER CONCENTRATIONS

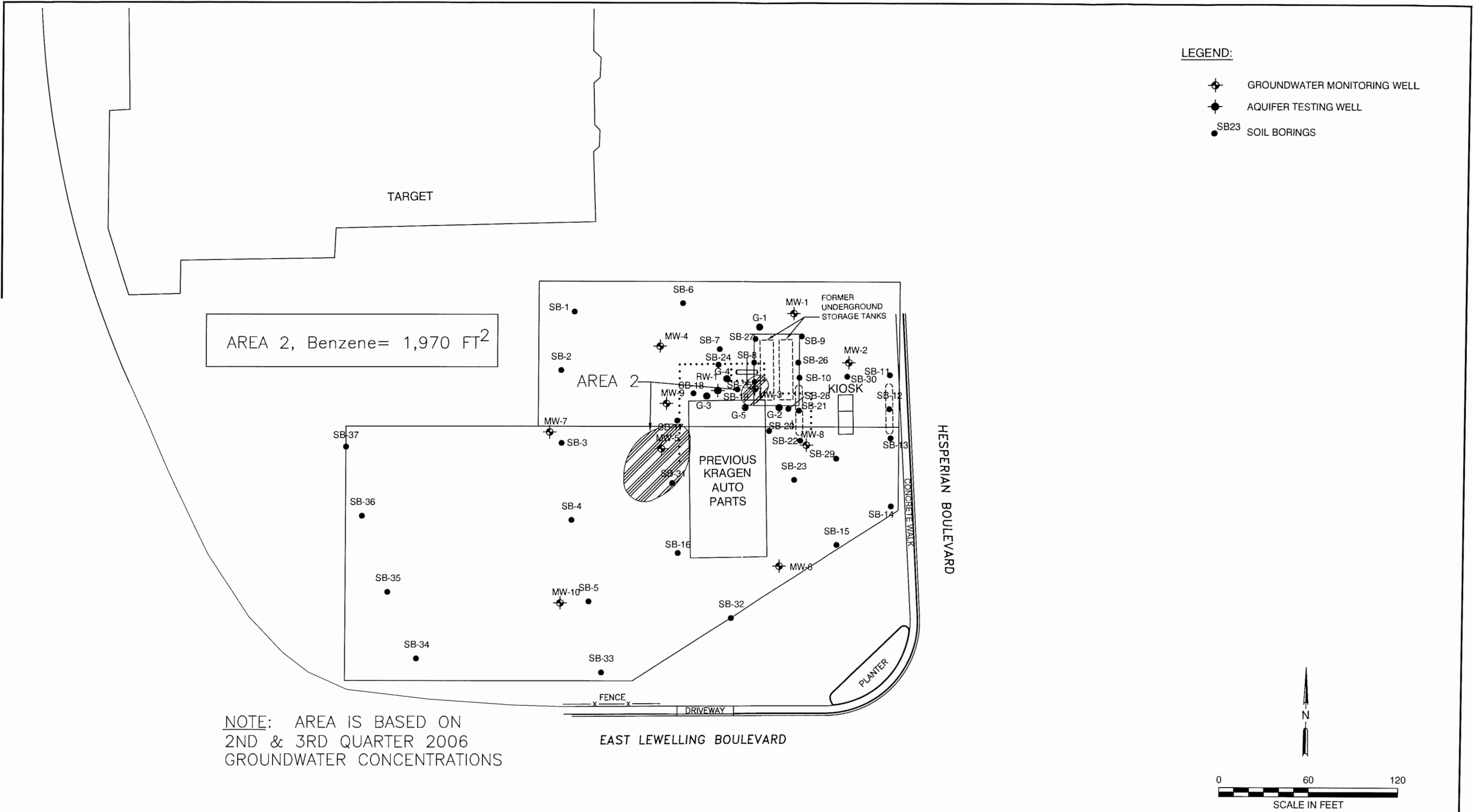


REFERENCE: THIS FIGURE IS BASED ON A MAP PROVIDED BY MORROW SURVEYING

 SECOR 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)	FOR: FORMER 76 SERVICE STATION NO. 7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA		APPENDIX G: SITE PLAN AREA OF TPHg MASS DISSOLVED IN GROUNDWATER		FIGURE: 2
	JOB NUMBER: 77CP.01631.00	DRAWN BY:	CHECKED BY: AP	APPROVED BY: AP	DATE: 10/16/06

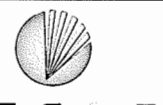
LEGEND:

-  GROUNDWATER MONITORING WELL
-  AQUIFER TESTING WELL
-  SOIL BORINGS






NOTE: AREA IS BASED ON
2ND & 3RD QUARTER 2006
GROUNDWATER CONCENTRATIONS

REFERENCE: THIS FIGURE IS BASED ON A MAP
PROVIDED BY MORROW SURVEYING

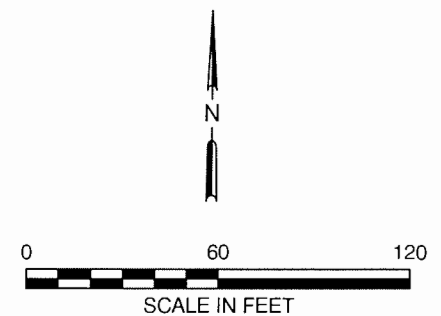
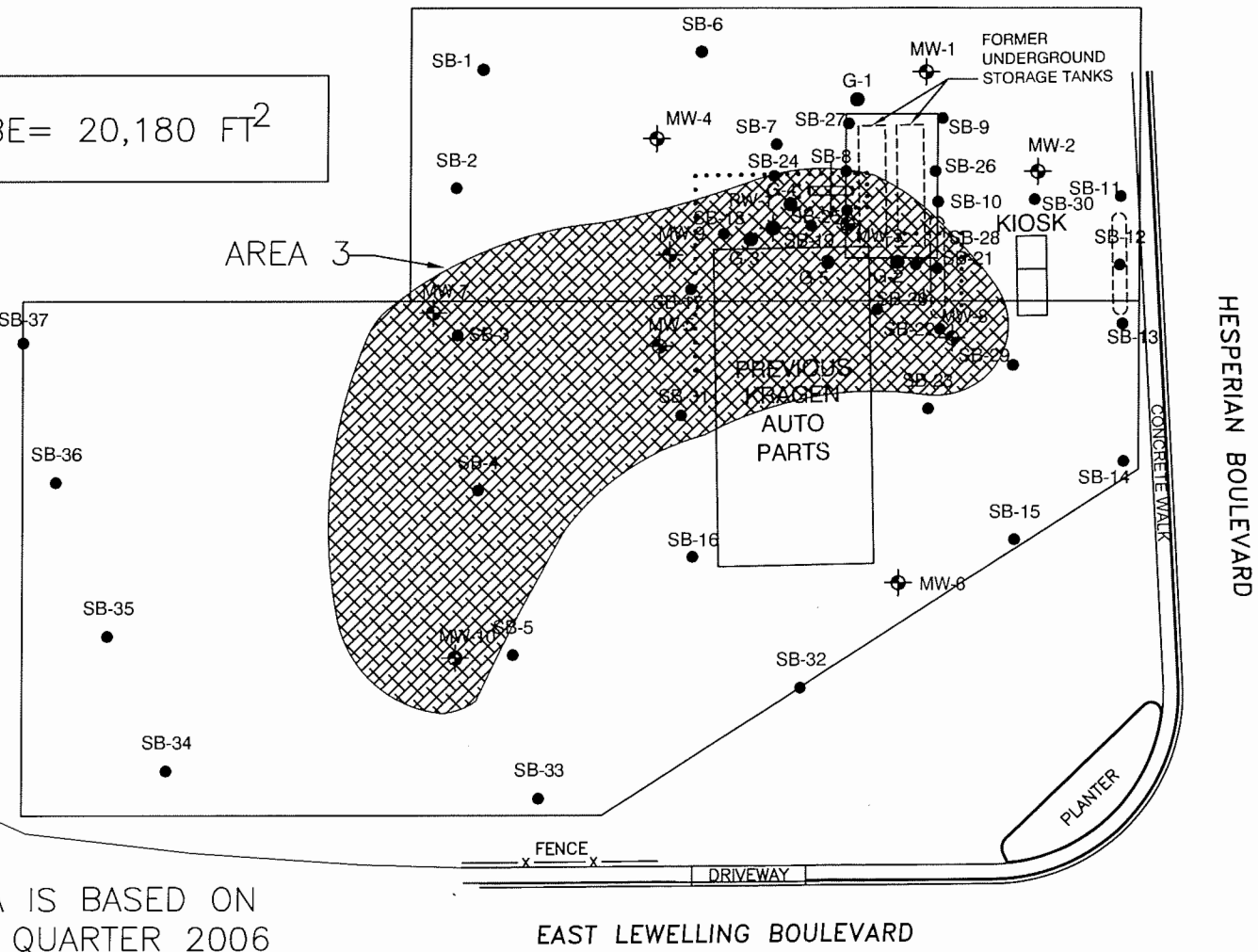
 SECOR 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)	FOR: FORMER 76 SERVICE STATION NO. 7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA		APPENDIX G: SITE PLAN AREA OF BENZENE MASS DISSOLVED IN GROUNDWATER		FIGURE: 3
	JOB NUMBER: 77CP.01631.00	DRAWN BY:	CHECKED BY: AP	APPROVED BY: AP	DATE: 10/16/06

LEGEND:


-  GROUNDWATER MONITORING WELL
-  AQUIFER TESTING WELL
-  SB23 SOIL BORINGS

AREA 3, MtBE = 20,180 FT²

NOTE: AREA IS BASED ON 2ND & 3RD QUARTER 2006 GROUNDWATER CONCENTRATIONS



REFERENCE: THIS FIGURE IS BASED ON A MAP PROVIDED BY MORROW SURVEYING

 SECOR 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)	FOR: FORMER 76 SERVICE STATION NO. 7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA		APPENDIX G: SITE PLAN AREA OF MTBE MASS DISSOLVED IN GROUNDWATER		FIGURE: 4
	JOB NUMBER: 77CP.01631.00	DRAWN BY:	CHECKED BY: AP	APPROVED BY: AP	DATE: 10/16/06

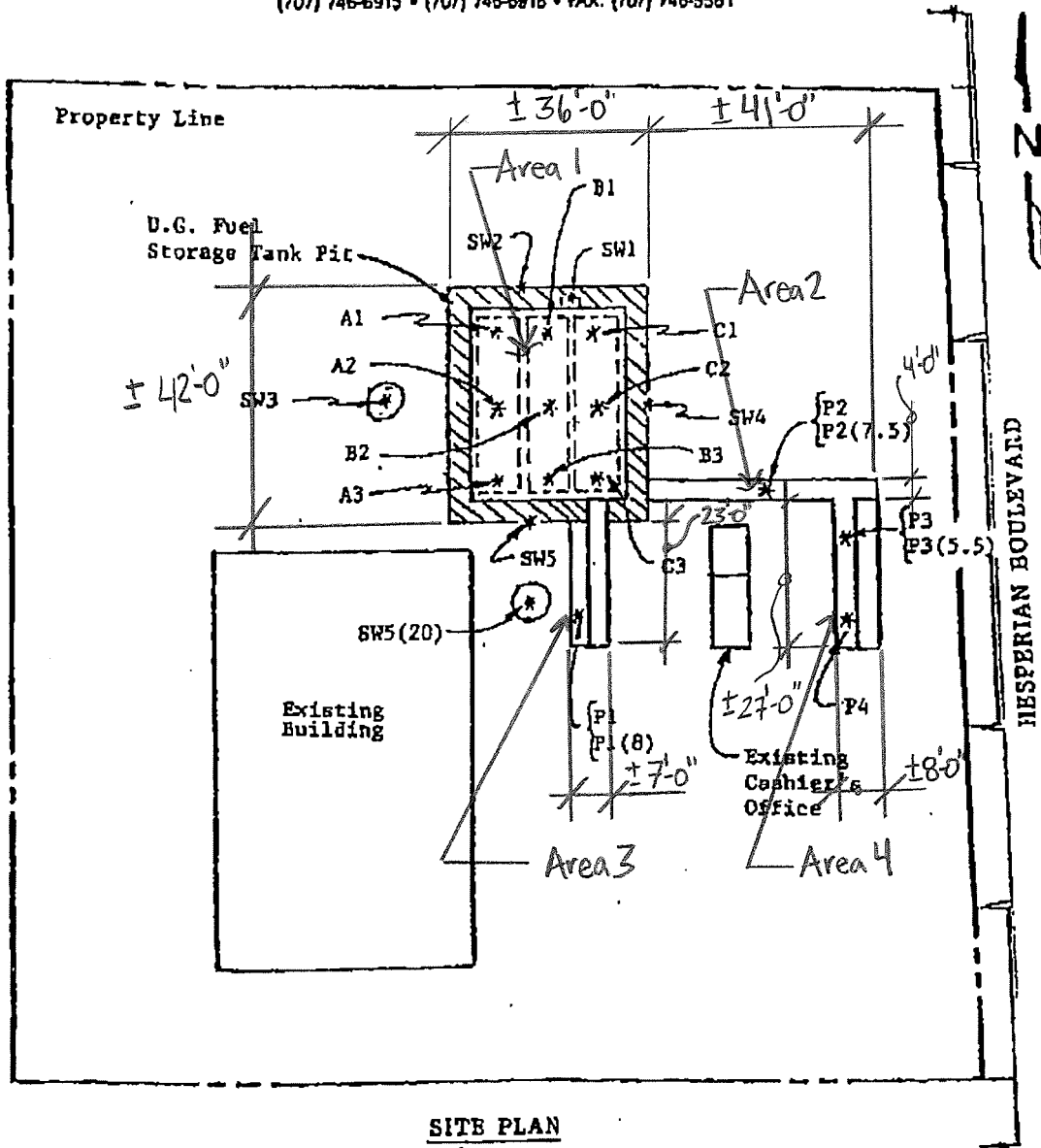


KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P.O. BOX 996 • BENICIA, CA 94510

(707) 746-6915 • (707) 746-8916 • FAX: (707) 746-5581



SITE PLAN
Figure 2

LEGEND

- * Sample Point Location
- ▨ Area of Additional Excavation



Unocal S/S #7004
15599 Hesperian Boulevard
San Leandro, CA

Volume of Excavated Soil

Figure 5

APPENDIX H
HUMAN HEALTH RISK ASSESSMENT TABLES

No Further Action Required (NFAR) Report and Request for Site Closure

ConocoPhillips

76 Service Station No. 7004

15599 Hesperian Boulevard

San Leandro, California

77CP.01631.11.1222

November 6, 2006

Table 1
Maximum Soil Concentrations and Environmental Screening Levels

Former 76 Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

Sample ID	Constituent	Date Collected	Sample Depth (feet bgs)	Maximum Soil Concentration (mg/Kg)	ESL ^a (mg/kg)	
					Construction Worker Direct Contact ^b	Vapor Intrusion ^{c, d}
Shallow Soils (≤10ft bgs)						
SB-1 through SB-37 and G-1 through G-5	Benzene	2002, 2005 & 2006	≤10	< 0.005	16,000	0.510
SB-30	Toluene	January-06	5.5	0.03	4,100	310
SB-30	Ethylbenzene	January-06	5.5	0.54	20,000	390
SB-30	Xylenes	January-06	2.5	7.80	13,000	420
SB-23	MTBE	August-05	10	0.01	2,500	5.6
SB-26	TBA	January-06	7.5	0.01	3,700	Nav ^f
SB-30	TPHg	January-06	5.5	46.00	6,000	Nav ^f
SB-32	Lead	January-06	5.5	12.00	750	NA
Deep Soils (>10 ft bgs and < 15 ft bgs)						
SB-1 through SB-37 and G-1 through G-5	Benzene	2002, 2005 & 2006	>10 and < 15	< 0.005	16,000	0.510
SB-1 through SB-37 and G-1 through G-5	Toluene	2002, 2005 & 2006	>10 and < 15	< 0.005	4,100	310
SB-1 through SB-37 and G-1 through G-5	Ethylbenzene	2002, 2005 & 2006	>10 and < 15	< 0.005	20,000	390
SB-1 through SB-37 and G-1 through G-5	Xylenes	2002, 2005 & 2006	>10 and < 15	< 0.005	13,000	420
SB-18	MTBE	August-05	13	0.022 ^e	2,500	5.6
SB-18	TBA	August-05	13	0.024 ^e	3,700	Nav ^f
SB-1 through SB-37	TPHg	2002, 2005 & 2006	>10 and < 15	< 1.0	6,000	Nav ^f
SB-32	Lead	January-06	10.5	13.000	750	NA
Definitions:						
ESL = Environmental screening level based on a hazard quotient of =0.2 and an excess cancer risk of 1.0E-06)						
bgs = Below the ground surface						
mg/kg = Milligrams per kilogram						
ESL = Environmental screening level						
MTBE = Methyl tertiary butyl ether						
TBA = Tert butyl alcohol						
Nav = Not Available						
NA = Not applicable because lead is not volatile						
Notes:						
^a Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater. Appendix 1. (SFRWQCB Interim Final - February 2005). Hazard Quotient = 0.2 and Excess Cancer Risk = 10 ⁻⁶ unless otherwise noted						
^b Table K-3 Direct-Exposure Screening Levels Construction/Trench Worker Exposure Scenario						
^c Table A-2 Shallow Soil Screening Levels (<3m bgs) Commercial/Industrial Land Use (groundwater IS a current or potential drinking water resource)						
^d Table C-2 Deep Soil Screening Levels (>3m bgs) Commercial/Industrial Land Use (groundwater IS a current or potential drinking water resource)						
^e The MTBE and TBA concentrations in samples collected from boring G-3 were 0.051 and 0.083 mg/kg, respectively. However, because these data are almost 4 years old, current data was used. Additionally, these concentrations are below the applicable ESLs						
^f No ESL Available in Tables A-2 and C-2. Both tables say "Use soil gas"						

Table 2
Groundwater Concentrations and Environmental Screening Levels

Former 76 Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

Date	Benzene ^a (µg/L)	Toluene ^b (µg/L)	Ethylbenzene ^b (µg/L)	Xylenes ^b (µg/L)	MTBE ^a (µg/L)	TPHg ^b (µg/L)
Sep-05	0.56	5.0 ^c	22.0	10.0	55.0	670.0
Dec-05	0.50 ^c	0.5 ^c	0.5 ^c	1.0 ^c	9.4	190.0
Mar-06	0.50 ^c	1.5	86.0	4.6	4.3	4,400.0
May-06	1.50	1.3	59.0	1.0 ^c	72.0	3,200.0
Arithmetic Mean	0.80	2.1	41.9	4.2	35.2	2,115.0
Primary MCL^d	1.0	150.0	300.0	1,750.0	13.0	DNE
Public Health Goal^e	0.15	150.0	300.0	1,800.0	13.0	DNE
Vapor Intrusion ESL^e	6,400	530,000	170,000	160,000	150,000	Nav
Definitions:						
TPHg = Total petroleum hydrocarbons in the gasoline range						
MTBE = Methyl tertiary butyl ether						
MCL = Maximum contaminant level						
ESL = Environmental screening level						
µg/L = Micrograms per liter						
DNE = Does not exist						
Nav = Not Available; use soil gas						
^a Analytical data from well MW-5						
^b Analytical data from well MW-3						
^c Analytical practical quantitation limit						
^d California Department of Health Services (CDHS) primary maximum contaminant level (2003)						
^e Office of Environmental Health Hazard Assessment, March 6, 2006						
^f Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater. Appendix 1. Table E-1a Groundwater Screening Levels For Evaluation of Potential Vapor Intrusion Concerns: Commercial/Industrial Land Use, Low/Moderately Permeable Soils (SFRWQCB Interim Final - February 2005).						

Table 3
Soil Gas Concentrations and Environmental Screening Levels
July 17, 2006
Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Well	TPHg ($\mu\text{g}/\text{m}^3$)	Benzene ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Ethylbenzene ($\mu\text{g}/\text{m}^3$)	Xylenes ($\mu\text{g}/\text{m}^3$)	MTBE ($\mu\text{g}/\text{m}^3$)
MW-3	5.6E+04	ND	ND	ND	ND	ND
MW-5	7.0E+04	ND	ND	ND	ND	8.7E+02
RW-1	6.7E+04	ND	ND	ND	ND	6.9E+02
Reporting Limit	1.8E+04	9.9E+02	9.8E+02	1.0E+03	1.0E+03	5.0E+02
Vapor Intrusion ESL^a	7.2E+04	2.9E+02	1.8E+05	1.2E+06	4.1E+05	3.1E+04
Definitions:						
TPHg = Total petroleum hydrocarbons in the gasoline range						
MTBE = Methyl tertiary butyl ether						
$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter						
ESL = Environmental screening level						
ND = Not detected						
Notes: All data were converted from parts per million by volume reported by the STL with the unit converter available at http://www.airtoxics.com/cclasses/unitcalc.html						
^a Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater. Appendix 1. Table E-2 ¹ Shallow Soil Gas Screening Levels For Evaluation of Potential Vapor Intrusion Concerns: Commercial/Industrial Land Use, SFRWQCB Interim Final - February 2005. ¹ Shallow soils are < 5 feet below the building foundation)						

APPENDIX I
CASE CLOSURE SUMMARY

No Further Action Required (NFAR) Report and Request for Site Closure

ConocoPhillips

76 Service Station No. 7004

15599 Hesperian Boulevard

San Leandro, California

77CP.01631.11.1222

November 6, 2006

**CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM**

I. AGENCY INFORMATION

Date:

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6746
Responsible Staff Person: Don Hwang	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Former 76 Service Station No. 7004		
Site Facility Address: 15599 Hesperian Blvd., San Leandro, CA		
RB Case No.:	Local Case No.: STID	LOP Case No.: RO0000371
URF Filing Date:	SWEEPS No.: ---	APN: 413-3-2

Responsible Parties	Addresses	Phone Numbers
Thomas Kosel	ConocoPhillips, 76 Broadway, Sacramento, CA 95618	(916) 558-7666

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
	12,000	Super Unleaded Fuel	Removed	10/90
	12,000	Unleaded Fuel	Removed	10/90
	12,000	Unleaded Fuel	Removed	10/90
	12,000	Unleaded Fuel	Removed	5/00
	12,000	Unleaded Fuel	Removed	5/00
Piping			Removed	5/00

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Structural leak of automotive gasoline	
Site characterization complete? Yes	Date Approved By Oversight Agency: -----

Monitoring wells installed? Yes	Number: 11	Proper screened interval? No (MW-1 through MW-6 screened through upper perched zone and lower water-bearing zone).
Highest GW Depth Below Ground Surface: 10.01	Lowest Depth: 16.71	Flow Direction: Mainly SW and ESE, with variations to the N/NE and NW
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: Based on the survey results documented in SECOR's NFAR and Request for Site Closure, there were 14 wells possibly located within 2,000 feet of the site based on DWR and ACPWD records. Of these wells, the closest active well was a Cal-Trans irrigation well, located 450 feet W of the site. One irrigation well was identified at a residence approximately 1350 feet E of the site; however its existence was not confirmed in the field. One domestic/irrigation well was confirmed to be inactive at a residence, approximately 1800 feet SE of the site. The rest of the wells could not be field verified due to redevelopment of the properties, discrepancies of locations on driller logs, current tenants on properties having no knowledge of a well on-site, or businesses no longer in existence.	
Are drinking water wells affected? No	Aquifer Name: San Leandro Sub-Area of the East Bay Plain
Is surface water affected? No	Nearest SW Name: San Lorenzo Creek (800 Feet SW)
Off-Site Beneficial Use Impacts (Addresses/Locations):	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health (and local CUPA where applicable)

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tanks	Three 12,000-gallon unleaded fuel USTs	Disposal not documented in KEI report.	10/90
Tank	Two 12,000-gallon unleaded fuel USTs	Disposed by Ecology Control Industries of Richmond, CA	5/00
Piping	Undocumented	Disposed by Ecology Control Industries of Richmond, CA	5/00
Free Product	Not Present	N/A	N/A
Soil	Approx. 1,600 cubic yards via excavation;	Disposed at BFI Landfill in Livermore, CA (Excavated Material)	12/91
Groundwater	5,000 gallons from UST pit (10/90); 13,060 gallons (DPE pilot test, 11/01); 415,990 gallons (DPE System)	Disposal location of water from UST pit undocumented. Water from the DPE pilot test and system operation disposed at the Tosco Refinery in Rodeo, CA	Exact dates of disposal not documented.

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm) *		Water (ppb)	
	Before	After	Before	After***
TPH (Gas)	4,800	46	96,000	3,200
TPH (Diesel)	N/A	N/A	N/A	N/A
Oil & Grease	N/A	N/A	N/A	N/A
Benzene	23	ND (various detection limits)	6,600	1.5
Toluene	120	0.029	78	1.3
Ethylbenzene	63	1.2	4,400	59
Xylenes	290	7.8	6,100	ND<1.0
Heavy Metals	N/A	13 (Total Lead)	430 (Total Lead)	N/A
MTBE **	N/A	0.022	3,300	72
TBA	N/A	0.083	300	ND (<10)

* Elevated concentrations in soil “before cleanup” reflect those concentrations in soil dating back to 1990 and 1991. Soil samples collected “after cleanup” are those concentrations detected in soil after excavation and natural attenuation over time. Results are taken from the 2002, 2005, and 2006 assessments. Soil samples have not been collected during the operation of the DPE system, which began on March 20, 2006.

** Concentrations of other oxygenates (TAME, DIPE, and EtBE), 1,2-DCA, and EDB have historically not been detected in soil and groundwater. With the exception of a concentration of dissolved ethanol (1,100/SB-4), the analyte has also historically not been detected in groundwater.

*** Concentrations based on 2Q06 and 3Q06 results during operation of DPE system.

Site History and Description of Corrective Actions:

- 10/90 – Removal of three, 12,000-gallon unleaded USTs by KEI. Petroleum hydrocarbons observed in soil and GW. Over-excavation performed in area of USTs and product lines. Approximately 1,600 cubic yards of soil removed. Approximately 5,000 gallons of GW removed from tank pit. USTs replaced with two, 12,000-gallon unleaded USTs.**
- 4/91 and 7/91 – Installation of six monitoring wells (MW-1 through MW-6) by KEI. M&S initiated.**
- 12/91 – Recovery tests performed at wells MW-3 and MW-5 by KEI.**
- 4/92 – Recovery well RW-1 installed by KEI.**
- 5/92 – 48-hour aquifer test performed by KEI utilizing RW-1 for extraction. Drawdown in observation wells. Subsurface was described as semi-confined. Transmissivity, storativity, and hydraulic conductivity values determined.**
- 1996 – ORC installed in well MW-5. Removed in 1999.**
- 1996 – ¼-mile radius water supply well survey performed. Two irrigation wells, one industrial well, and one well of unknown use located in search radius. Closest well located approx. 2,000 feet S.**
- 5/00 – GR observed the removal of two 12,000-gallon USTs and product piping. Station decommissioned and demolished. Petroleum hydrocarbons and MtBE detected in soil in area of USTs, but not in product line soil samples. Majority of stockpiled pea gravel used as backfill, prior to which ORC (360 pounds) was placed at base of excavation. Approximately 200 cubic yards of pea gravel removed.**
- 2001 – GR performed a Limited Phase I Assessment and a ½-mile water supply well survey. One well located 1,650 feet S, one well located 2,300 feet W-NW, and one well located 2,275 feet E-SE of site.**
- 11/01 – SECOR performed a 5-day DPE pilot test utilizing MW-3 and RW-1 for extraction. Approx. 36.55**

pounds of TPHg, 0.56 pounds of benzene, 0.47 pounds of MtBE, and 13,060 gallons of GW were removed. DPE determined to be a feasible remedial alternative.

9/02 – Five soil borings (GP-1 through GP-5) advanced by GR. Low levels of MtBE and TBA detected in GP-3.

3/05 – Utility survey performed by SECOR. Identified utilities determined not to be preferential migration pathways.

8/05 – Additional assessment by SECOR (23 soil borings/SB-1 through SB-23). Low levels of petroleum hydrocarbons, MtBE, and TBA detected in soil. Grab GW samples contained one more more constituents of TPHg, BTEX, MtBE, TBA, and ethanol (SB-4, SB-17, SB-21).

1/06 – Additional assessment by SECOR (14 soil borings/SB-24 through SB-37 and wells MW-7 – MW-10).

3/06 – SECOR performed start-up of portable DPE system. Approximately 6.61 pounds TPHg and 0.12 pounds MtBE were removed via the SVE portion of DPE system through 3Q06. Approximately 0.030 gallons of TPHg, 0.005 gallons of MtBE, and 0.003 gallons of TBA were removed via the operation of the GWE portion of the DPE system through 3Q06. Cumulative operation of the DPE system has resulted in the treatment and extraction of 397,450 gallons of GW from beneath the site.

10/06 – *No Further Action Analysis and Human Health Risk Assessment* report submitted by SECOR.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan?		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan?		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions. This is further supported with the results of a human health risk assessment performed by SECOR, and documented in a submittal dated 10/5/06.		
Site Management Requirements:		
Should corrective action be reviewed if land use changes?		
Was a deed restriction or deed notification filed? Yes No		Date Recorded:
Monitoring Wells Decommissioned:	Number Decommissioned:	Number Retained:
List Enforcement Actions Taken:		
List Enforcement Actions Rescinded:		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

Conclusion:

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by:	Title: Hazardous Materials Specialist
Signature:	Date:
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature:	Date:

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name:	Title: Associate Water Resources Control Engineer
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature:	Date:

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH:	Date of Well Decommissioning Report:	
All Monitoring Wells Decommissioned: Yes No	Number Decommissioned:	Number Retained:
Reason Wells Retained:		
Additional requirements for submittal of groundwater data from retained wells:		
ACEH Concurrence - Signature:		Date:

Attachments:

1. Site Vicinity Map
2. Site Plan
3. Soil Analytical Data
4. Groundwater Analytical Data
5. Boring Logs

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.