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October 11, 2005

Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Site Conceptual Model
Shell-branded Service Station
1784 150th Avenue
San Leandro, California
SAP Code 136019
Incident #98996068

Dear Mr. Wickham:

Attached for your review and comment is a copy of the *Site Conceptual Mode* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Sr. Environmental Engineer

CAMBRIA

October 11, 2005

Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
2nd Floor, Room 250
Alameda, CA, 94502-6577

Re: **Site Conceptual Model**
Shell-branded Service Station
1784 150th Street
San Leandro, California
Incident No. 98996068
Cambria Project No. 247-0612-007

Dear Mr. Wickham:

Cambria Environmental Technology, Inc. (Cambria) prepared this site conceptual model (SCM) on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). Presented below are a summary of site conditions and a site investigation history.

SITE BACKGROUND

Location and Current Use

The site is an operating Shell-branded service station located at the southern corner of 150th Street and Freedom Avenue in San Leandro, California (Figure 1). The area surrounding the site is mixed commercial and residential. The site has a station building, four dispenser islands, one waste oil underground storage tank (UST), and three fuel USTs (Figure 2).

Local Topography

The base of the San Leandro hills is approximately 0.25 miles to the northeast. The site is about 50 feet above mean sea level, and the local topography slopes toward the San Francisco Bay, approximately 6 miles to the west.

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Previous Work

1986 Waste Oil Tank Removal: According to an October 13, 1989 letter from Weiss Associates (Weiss) to Shell, Petroleum Engineering of Santa Rosa, California removed a 550-gallon waste-oil tank from the site in November 1986 (Figure 2). Immediately following the tank removal, Blaine Tech Services (Blaine) of San Jose, California collected soil samples (Soil #1 and Soil #2) beneath the former tank at 8 and 11 feet below ground (fbg). Soil #1 and Soil #2 contained petroleum oil and grease at 196 and 167 parts per million (ppm), respectively. The tank pit was over-excavated to a total depth of 16 fbg, but no additional soil samples were reportedly collected. Groundwater was not encountered in the tank excavation. A new 550-gallon fiberglass waste-oil tank was installed in the same location.

1990 Well Installation: In March 1990, Weiss advanced soil boring BH-A, which was converted to groundwater monitoring well MW-1 adjacent to the waste oil tank (Figure 2). In a soil sample collected from 29 fbg, 35 ppm total petroleum hydrocarbons as gasoline (TPHg) and 0.23 ppm benzene were detected. A copy of the summarized results is presented in Attachment A. A copy of the boring log is presented in Attachment B.

1992 Well Installations: In February 1992, Weiss advanced soil borings BH-B and BH-C, which were converted to monitoring wells MW-2 and MW-3. A soil sample collected near the water table from the boring for well MW-2 contained 79 ppm TPHg. Although well MW-3 is located over 100 feet up-gradient of the tanks, up to 68 ppm TPHg was detected in soil from this boring. Soil data is summarized in Attachment A. Boring logs are provided in Attachment B.

1992 Well Survey: In 1992, Weiss reviewed the California Department of Water Resources (DWR) and Alameda County records to identify water wells within a ½-mile radius of the site. A total of 21 wells were identified: 12 monitoring wells, 8 irrigation wells and 1 domestic well. No municipal wells were identified. Attachment C summarizes survey results.

1994 Subsurface Investigation: In June 1994, Weiss drilled six soil borings (B-1 through B-6) at the site. No hydrocarbons were detected in soil samples from any borings, except for 0.013 ppm benzene in boring BH-3 at 16 fbg. No hydrocarbons were detected in grab groundwater samples from borings BH-1, BH-4, BH-5 and BH-6. The maximum TPHg concentration of 120,000 parts per billion (ppb) was detected in the grab groundwater samples collected from boring BH-3. Soil data is summarized in Attachment A, and groundwater results are summarized in Attachment D.

1995 Well Installation: In February and March 1995, Weiss drilled four soil borings (BH-7 through BH-10) and converted BH-10 to monitoring well MW-4. No petroleum hydrocarbons were detected in any of the soil samples. TPHg concentrations were detected up to 100 ppb and benzene concentrations were detected up to 1.0 ppb in grab groundwater samples from BH-7 and

BH-9 (Attachment D). No TPHg or benzene was detected in the grab groundwater sample from MW-4. Groundwater was not encountered in soil boring BH-8.

1996 Soil Vapor Survey and Soil Sampling: In July 1996, Weiss conducted a subsurface investigation to obtain site-specific data for a risk-based corrective action (RBCA) evaluation of the site. Soil vapor and soil samples were collected from the vadose zone at 10 on- and off-site locations (SVS-1 through SVS-10). The highest soil vapor hydrocarbon concentrations were detected near the northwest corner of the UST complex (sample SVS-5 at 3.0 fbg, which contained 7,600 parts per million by volume [ppmv] benzene) (Attachment E). No TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX), or methyl tertiary butyl ether (MTBE) was detected in any of the soil samples except for 1.1 ppm TPHg detected in sample SVS-5 at 18 to 20 fbg (Attachment A). Weiss concluded that depleted oxygen concentrations and elevated carbon dioxide and methane concentrations in the vadose zone indicated that biodegradation was occurring.

1997 RBCA Evaluation: In 1997, Weiss prepared a RBCA evaluation for the site. RBCA analysis results indicated that BTEX, MTBE, 1,2-dichloroethane, and tetrachloroethylene concentrations detected in soil and groundwater beneath the site did not exceed a target risk level of 10^{-5} for residential indoor or outdoor air exposure pathways. However, a risk threshold exceedance was identified associated with ingestion of groundwater from a hypothetical well 25 feet downgradient of the source.

1997 Dispenser and Turbine Sump Upgrade: The dispensers and turbine sumps at the station were upgraded in December 1997. Cambria collected soil samples Disp-A through Disp-D from beneath the dispenser islands during upgrade activities. Up to 590 ppm TPHg (Disp-C at 4.5 fbg), 1.8 ppm benzene (Disp-C at 2.0 fbg) and 1.4 ppm MTBE (Disp-C at 2.0 fbg) were detected (Attachment A).

1998 Soil Vapor Survey and Soil Sampling: In November 1998, Cambria conducted a subsurface investigation to obtain site-specific data for a RBCA evaluation of the site. Soil samples, soil vapor samples, and grab groundwater samples were collected from the vadose zone at three on-site and three off-site locations (SVS-11 through SVS-16). In soil vapor, maximum concentrations of 2.7 ppmv TPHg (C5+ hydrocarbons) and 0.17 ppmv TPHg (C2-C4 hydrocarbons) were detected in borings SVS-14 and SVS-15, respectively, at 10 fbg. A maximum concentration 0.0099 ppmv benzene was detected in SVS-16 at 5 fbg (Attachment E). In soil, 1.6 ppm TPHg and 0.005 ppm benzene were detected in boring SVS-11 at 19.5 fbg. No TPHg or benzene was detected in any other soil samples. MTBE was reported at 0.029 ppm in boring SVS-14 at 19 fbg using EPA Method 8020; however, MTBE was not detected in this sample using EPA Method 8260 (Attachment A). TPHg and benzene were detected using EPA Method 8020 in groundwater from borings SVS-11 and SVS-12. The highest concentrations,

130,000 ppb TPHg and 18,000 ppb benzene, were detected in SVS-11. MTBE was reported at a concentration of 1,500 ppb in boring SVS-11 by EPA Method 8020, but was not confirmed by EPA Method 8260 (Attachment D).

1999 RBCA Evaluation: In September 1999, Cambria prepared a RBCA evaluation for the site. Cambria analyzed the following potential exposure pathways: off-site ingestion of groundwater, on-site ingestion of surficial soil, volatilization of benzene from soil or groundwater into on-site or off-site indoor air, and migration of benzene soil vapor to on-site or off-site outdoor air. Results of Tier 1 and Tier 2 RBCA analyses indicated that contaminants within soil and groundwater did not present significant health risks.

October 2001 Off-Site Monitoring Well Installation: Two monitoring wells (MW-5 and MW-6) were installed off site to the southwest. Soil sample results from this investigation indicated only minimal MTBE impact to off-site soil southwest of the site. This finding was corroborated by Cambria's 1998 subsurface investigation, in which no TPHg or benzene and only low MTBE concentrations were detected in soil from three borings (SVS-14 through SVS-16) along the private driveway (Attachment A).

July – August 2002 Mobile Groundwater Extraction (GWE): In July 2002, Onyx Industrial Services (Onyx) of Benicia, California began conducting semi-monthly GWE using monitoring well MW-2 for three events and continuing on a monthly basis until March 2004. In March 2004, Onyx commenced monthly GWE using well MW-2 and MW-11 once per month each, so that GWE was conducted twice per month at the site. However, due to an error during March 2004, Onyx conducted GWE twice from well MW-2 and once from MW-11. The GWE frequency was increased to weekly (from both MW-2 and MW-11) beginning in May 2004. Summary GWE removal data are presented in Attachment F.

Mobile GWE ceased on August 24, 2004. Approximately 19.6 pounds of TPHg, approximately 3.45 pounds of benzene, and approximately 5.12 pounds of MTBE had been removed during these activities.

October 2002 Off-Site Monitoring Well Installation: Two monitoring wells (MW-7 and MW-8) and one soil boring (SB-9) were installed off-site and northwest of the site in 150th Avenue. Soil sample results collected during this investigation indicated minimal MTBE, BTEX and TPHg impact to off-site soil northwest of the site (Attachment A). Grab groundwater samples indicated benzene and TPHg compounds were present at elevated concentrations in groundwater northwest of the site beneath 150th Avenue (Attachment D).

August 2003 Soil and Groundwater Investigation: Six soil borings (SB-10, SB-11, SB-12, SB-13, SB-14, and SB-16) were advanced to the northwest of the site in both 150th Avenue and Portofino Circle; one boring, SB-15, was advanced on site (Figure 2). Initial groundwater was encountered between 24 and 28 fbg during drilling activities.

During the investigation, MTBE was detected in on-site grab groundwater sample SB-15-W at 40 ppb. The highest TPHg concentration was detected in SB-14-W at 67,000 ppb, and the highest benzene concentration was detected in SB-15-W at 530 ppb (Attachment D). TPHg was detected only in soil samples SB-11-30' and SB-15-36' at concentrations of 650 ppm and 1.4 ppm, respectively. Benzene was detected only in soil sample SB-15-35' at 0.10 ppm (Attachment A). Based on typical groundwater depths in nearby well MW-7, it was determined that samples SB-11-30' and SB-15-36' were saturated, and results may be more indicative of chemical concentrations in groundwater.

October 2003 Sensitive Receptor Survey (SRS): In October 2003, Cambria completed an SRS at Shell's request. The SRS targeted the following as potential sensitive receptors: basements within 200 feet, surface water and sensitive habitats within 500 feet, hospitals, residential care and childcare facilities within 1,000 feet, and water wells within ½ mile. No basements were observed within 200 feet, nor were any surface water or sensitive habitats observed within 500 feet. No educational or childcare facilities were identified within the search radius. The Fairmont Hospital campus, located at 15400 Foothill Boulevard, is located approximately 1,100 feet from the site, just outside the target radius.

To update the 1992 well survey performed by Weiss, Cambria researched DWR records in September 2003 and located no additional well records for locations within ½ mile of the site. The closest identified water well potentially used for drinking water is a well installed in 1952 and listed as a "domestic well." This well is located at Fairmont Hospital, approximately 2,445 feet east-southeast of the site. The well is reportedly 138 feet deep and has a screened interval between 62 and 95 fbg. The well's status and operation frequency are unknown. Due to the well's distance from the site and the site's observed groundwater flow directions, it is unlikely that this well would be impacted by groundwater from the site.

November 2003 Monitoring Well Installation: On November 19 and 20, 2003, Cambria installed on-site and off-site wells MW-9, MW-10, and MW-11. Off-site soil borings were not completed due to access agreement issues. MTBE was detected in two soil samples (MW-11-20' and MW-11-24.5') at concentrations of 0.039 and 1.4 ppm, respectively. TPHg was detected in four soil samples (MW-10-30', MW-10-31.5', MW-11-20', and MW-11-34.5') at concentrations of 14, 230, 1.8, and 330 ppm, respectively (Attachment A). All soil samples with detectable

hydrocarbon concentrations were saturated soil samples, so identified results appeared more indicative of chemical concentrations in groundwater than soil.

September 2004 Temporary GWE System Installation: On September 13, 2004, Cambria completed installation and began operation of a temporary GWE system. The temporary GWE system was installed as an interim remedial measure to address the elevated petroleum hydrocarbon and MTBE concentrations in groundwater near the west corner of the site. Groundwater was extracted from monitoring well MW-2 using a pneumatic submersible pump. Extracted groundwater was pumped from the well into a 6,500-gallon storage tank located in the south corner of the site. The extracted water was periodically transported to Shell's Martinez Refinery located in Martinez, California for reclamation.

On November 8, 2004, Cambria stopped the temporary GWE system to conduct interim remediation by dual phase extraction (DPE). During these temporary GWE activities approximately 0.448 pounds of TPHg, 0.036 pounds of benzene, and approximately 0.121 pounds of MTBE were removed from the subsurface (Attachment F).

November 2004 DPE: During the period November 8 through November 13, 2004, DPE was conducted in on-site wells MW-2 and MW-11 as an interim remedial action to reduce hydrocarbon concentrations in groundwater near the western corner of the site and to progress the site toward closure.

Based on operating parameters and vapor sample analytical results, the total TPHg, benzene and MTBE vapor-phase masses removed from well MW-11 are estimated at 165 pounds, 0.291 pounds, and 0.063 pounds, respectively. The total TPHg, benzene, and MTBE vapor-phase masses removed from well MW-2 are estimated at 0.073 pounds, 0.0002 pounds, and 0.001 pounds, respectively.

The total TPHg, benzene and MTBE liquid-phase masses removed from wells MW-2 and MW-1 during interim remediation are estimated at 5.31 pounds, 0.193 pounds, and 0.143 pounds, respectively (Attachment F).

January – April 2005 Temporary GWE System: Upon completing the interim remedial action, Cambria intended to immediately resume operating the temporary GWE system. However, the restart was delayed due to repaving of the site's parking lot. The temporary GWE system operated between January 10 and April 13, 2005. Because detected TPHg and MTBE concentrations were higher in well MW-11 than in well MW-2 during the most recent sampling events, MW-11 was chosen for extraction. During these activities, approximately 19.04 pounds of TPHg, approximately 1.69 pounds of benzene, and approximately 3.94 pounds of MTBE were

removed from the subsurface (Attachment F). Without getting a building permit, Cambria was required to remove the temporary GWE system in April 2005.

March – April 2005 Fuel System Upgrade: Armer Norman of Pacheco, CA replaced the fuel dispensers and piping and upgraded UST sumps between March and May 2005. On March 22 and April 4, 2005, soil samples were collected beneath each of the four dispensers and the product piping joints. TPHg was detected in 11 samples, with a maximum concentration of 4,100 ppm in sample P-4-5.0. Benzene was detected in six samples at a maximum concentration of 11 ppm in sample P-4-2.5. Toluene was detected in seven samples, with a maximum concentration of 83 ppm in sample P-4-2.5. Ethylbenzene was detected in 10 samples, with a maximum concentration of 48 ppm in sample P-4-5.0. Total xylenes were detected in 12 samples, with a maximum concentration of 280 ppm in sample P-4-2.5. MTBE was detected in five samples, with a maximum concentration of 0.18 ppm in sample D-1-3.5. Tert-butyl alcohol was detected in sample D-3-3.5 at a concentration of 0.023 ppm. Lead was detected in four samples, with a maximum concentration of 75.7 ppm in sample D-1-3.5. No other analytes were detected.

September 2005 GWE Restart: In September 2005, Onyx restarted monthly GWE using monitoring well MW-11. This interim remediation measure will continue until a corrective action plan (CAP) for the site is completed.

Groundwater Monitoring: Groundwater quarterly groundwater sampling began in March 1990 Groundwater samples from MW-1 have contained the highest TPHg concentrations, up to 790,000 ppb on June 12, 1996. Groundwater samples from MW-2 have contained the highest benzene concentrations, up to 36,000 ppb on March 3, 1993. Wells MW-7 and MW-8 have contained up to 49,000 ppb TPHg and 830 ppb benzene; no MTBE has been detected in these wells. In the second quarter of 2005, the highest TPHg concentrations were detected in samples collected from wells MW-1 (94,000 ppb) and MW-11 (100,000 ppb). The highest benzene concentration was measured in MW-1 at 6,500 ppb. Historical groundwater monitoring data are presented in Attachment G. Plots of well concentrations vs. time are presented in Attachment H. Figures 3 through 14 present TPHg, benzene, and MTBE isoconcentration maps for shallow and deep water-bearing zones on December 15, 2003 and June 30, 2005.

SCM

Site Address:	1784 150th Street	**Incident Number:**	98996068
City:	San Leandro, CA	**Regulator:**	Alameda County Health Care Services Agency

Item	Evaluation Criteria	Comments/Discussion
1	**Hydrocarbon Source**	
1.1	Identify/Describe Release Source and Volume (if known)	One 550-gallon steel waste oil UST and three gasoline USTs are present at the site. The volume of releases from these sources is unknown.
1.2	Discuss Steps Taken to Stop Release	In November 1986, a 550-gallon steel waste oil UST was replaced. Soil samples collected from the tank pit at 8 and 11 fbg contained up to 196 parts per million (ppm) of petroleum oil and grease (POG). No groundwater was encountered during the waste oil UST replacement activities. A 550-gallon fiberglass waste oil UST was installed in the same location. No record of the gasoline USTs being removed or replaced has been located at this time.
2	**Site Characterization**	
2.1	Current Site Use/Status	The site is an active service station located at the southern corner of the intersection of 150th and Freedom Avenues in San Leandro, California. The site is approximately 50 feet above mean sea level, and the local topography slopes towards San Francisco Bay, about 6 miles to the west. The site is located in a mixed residential and commercial area. There are three underground gasoline storage tanks, a 550-gallon waste-oil tank, one former dispenser island, and two current dispenser islands at the site. The waste-oil tank was replaced in 1986; dispensers were replaced in 1998.
2.2	Soil Definition Status	Impacted surface soil (less than 10 fbg) has been encountered off-site in monitoring well MW-6 and on-site at the dispensers. .Vertical and lateral definition of hydrocarbon-impacted soil on-site has not been achieved.
2.3	Separate-Phase Hydrocarbon Definition Status	No separate-phase hydrocarbons have been reported at the site.
2.4	Groundwater Definition Status (BTEX)	BTEX concentrations in soil and groundwater appear to be defined in the west and southeast. BTEX is not defined in the northwest direction.

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2.5	BTEX Plume Stability and Concentration Trends	Benzene concentrations in groundwater show a general decrease off-site to the south/southwest and northwest across 150th Avenue, and to the north across Freedom Avenue. On-site monitoring wells MW-3 and MW-10 have historically lower BTEX concentrations in groundwater because they are screened below the clayey silt-confining layer. Off-site well MW-7 and on-site wells MW-1, MW-2, and MW-11 continue to record elevated TPHg and BTEX concentrations in groundwater. All four of these wells are adjacent (MW-2 and MW-11) to, or downgradient (MW-1; south/southwest flow) of the UST complex. Benzene isoconcentration contour maps are presented as Figures 4, 7, 10, and 13.
2.6	Groundwater Definition Status (MTBE)	Based on the results from Cambria's *First Quarter 2005 Monitoring Report*, MTBE contamination in groundwater is primarily on site, and specifically in wells MW-1, MW-2, and MW-11. The highest MTBE concentration in groundwater was detected in on-site well MW-11 in November 2003 at 26,000 parts per billion (ppb). MW-11 is located adjacent to the UST complex. Low concentrations of MTBE have been detected in groundwater from off-site and upgradient wells MW-4 and MW-9 west of the site, and on-site and up- and cross-gradient well MW-3 in the northeastern portion of the site.
2.7	MTBE Plume Stability and Concentration Trends	On site, MTBE concentrations in wells MW-2 and MW-11 fluctuate and exhibit a generally static to decreasing trend over time. As of January 1, 2003, MTBE is no longer included in the formulation of Shell gasoline. Based on Cambria's *First Quarter 2005 Monitoring Report*, MTBE in groundwater has not been detected in off-site wells since December 2003 except in MW-9 at a concentration of 2.5 ppb. MTBE isoconcentrations contour maps are presented as Figures 5, 8, 11 and 14.
2.8	Groundwater Flow Direction, Depth Trends and Gradient Trends	Historically, groundwater gradient has ranged from 0.0008 ft/ft to 0.017 ft/ft. Based on groundwater elevation data, the groundwater flow direction has varied between north/northwestward to southward. Groundwater is typically 20 to 30 feet beneath ground surface.
2.9a	Regional Geology	Sediments beneath the site are Quaternary alluvial deposits derived from sedimentary and igneous rocks of the Diablo Range; the site is adjacent to the Hayward Fault. The site is underlain by low estimated permeability sediments (clay) with interspersed moderate estimated permeability sediments (silt and sand).
2.9b	Topography	The site is about 50 feet above mean sea level and the local topography slopes towards San Francisco Bay, about 6 miles to the west.

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2.9c	Stratigraphy and Hydrogeology	The site is underlain by a layer of dark brown to black, soft, damp, sandy silt/silty clay with gravel of low to moderate plasticity and low to moderate estimated permeability, to an approximate depth of 5 fbg. Beneath lies a brown to dark brown silty clay to approximately 13 fbg. Silty sand/sandy silt is present to the total explored depth of 40 fbg, with gravel interbeds above and below 25 fbg. Groundwater was encountered during monitoring well installation between 20 and 34 fbg. Based on the difference between static and dynamic water levels at some locations, confined conditions may be present in portions of the site.	
2.10	Preferential Pathways Analysis	Cambria has no record of a formal utility survey of the site and surrounding area. Therefore, it is unknown whether utility trenches within and near the site and plume areas could be serving as preferential pathways for chemical migration in groundwater. However, since depth to groundwater ranged from 20 to 30 fbg, it is unlikely that any utilities are buried at this depth. The gravel lens at approximately 25 fbg may provide a preferential pathway for BTEX and TPHg primarily to the west/north-west. The gravel lens sits on a confining/semi-confining clayey silt layer.	
2.11	Other Pertinent Issues	None.	
3	**Remediation Status**		
3.1	Remedial Actions Taken	**Mobile Groundwater Extraction (GWE):** In July 2002, semi-monthly GWE from monitoring well MW-2 began for three events and continued on a monthly basis until March 2004. In March 2004, monthly GWE was increased to twice per month, using wells MW-2 and MW-11 once per month. In May 2004, GWE frequency was increased to weekly (from both MW-2 and MW-11). As of August 24, 2004, approximately 19.6 pounds of TPHg, 3.45 pounds of benzene, and 5.12 pounds of MTBE had been removed from the subsurface. Mobile GWE was stopped on August 24, 2004. **Temporary GWE System Installation:** On September 13, 2004, Cambria completed installation and began operation of a temporary GWE system. The temporary GWE system was installed as an interim remedial measure to address the elevated petroleum hydrocarbon and MTBE concentrations in groundwater near the west corner of the site. Groundwater was extracted from monitoring well MW-2 using a pneumatic submersible pump. Extracted groundwater was pumped from the well into a 6,500-gallon storage tank located in the south corner of the site. The extracted water was periodically transported to Shell's Martinez Refinery located in Martinez, California for	

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		reclamation. During temporary GWE activities, approximately 0.448 pounds of TPHg, 0.036 pounds benzene, and approximately 0.121 pounds of MTBE were removed from the subsurface. On November 8, 2004, Cambria stopped the temporary GWE system to conduct interim remediation using dual phase extraction (DPE). **Dual Phase Extraction (DPE):** Based on operating parameters and vapor sample analytical results, the total TPHg, benzene and MTBE vapor-phase mass removed from well MW-11 is estimated at 165, 0.291, and 0.063 pounds, respectively. The total TPHg, benzene, and MTBE vapor-phase mass removed from well MW-2 is estimated at 0.073, 0.0002, and 0.001 pounds, respectively. The total TPHg, benzene and MTBE dissolved-phase mass removed from wells MW-2 and MW-1 during interim remediation is estimated at 5.31, 0.193, and 0.143 pounds, respectively. **Temporary GWE System:** The temporary GWE system was reactivated January 10, 2005 using well MW-11. Well MW-11 was chosen due to the higher TPHg and MTBE concentrations detected than in well MW-2 during the most recent sampling events. Between January 10, 2005 and April 13, 2005 approximately 19.1 pounds TPHg, 1.69 pounds benzene, and 3.94 pounds MTBE were removed.
3.2	Area Remediated	Remedial actions addressed hydrocarbon, BTEX, and MTBE removal down- and cross-gradient of the UST complex.
3.3	Remediation Effectiveness	As of April 2005, approximately 210 pounds of TPHg, 5.59 pounds benzene, and 9.22 pounds of MTBE have been removed from the subsurface by all remediation efforts to date (Attachment F).
4	**Well and Sensitive Receptor Survey**	
4.1	Designated Beneficial Water Use	Based on the June 1999 *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report* by the California Regional Water Quality Control Board San Francisco Bay Region Groundwater Committee, the city of San Leandro does not have "any plans to develop local groundwater resources for drinking water purposes, because of existing or potential saltwater intrusion, contamination, or poor or limited quantity."
4.2	Shallow Groundwater Use	Of the 21 wells identified by well surveys within a half-mile of the site, 12 are monitoring wells, 8 are irrigation wells, and 1 is a domestic well. No municipal wells were identified.
4.3	Deep Groundwater Use	Deep groundwater use in the site vicinity is unknown. The

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		closest identified deep water well was installed in 1952 and is located at Fairmont Hospital, approximately 2,445 feet east-southeast of the site. The well is reportedly 138 feet deep, and is screened between 62 and 95 fbg. The well's status and operation frequency are unknown.	
4.4	Well Survey Results	In 1992, Weiss Associates (Weiss) reviewed the California Department of Water Resources (DWR) and Alameda County records to identify water wells within a one-half mile radius of the site. A total of 21 wells were identified - 12 monitoring, 8 irrigation, and 1 domestic. No municipal wells were identified. To update the 1992 Weiss well survey, Cambria researched DWR records in September 2003, but did not locate any additional well records for locations within ½ mile of the site. The closest identified water well potentially used for drinking water is a well installed in 1952, listed as a domestic well, located at the Fairmont Hospital, approximately 2,445 feet east-southeast of the site. The well is reportedly 138 feet deep, and is screened between 62 and 95 fbg. The well status and operation frequency are unknown. Due to the well location relative to the site and the observed groundwater flow directions, it is unlikely that this well is impacted by groundwater from the site.	
4.5	Likelihood of Impact to Wells	Due to either distance or location (up- or cross-gradient of the site), it is unlikely that chemicals originating from the site will impact any other identified wells.	
4.6	Likelihood of Impact to Surface Water	Given that the nearest surface water, San Francisco Bay, is about 6 miles to the west, the likelihood of impact to surface water from chemicals originating from the site is low.	
5	**Risk Assessment**		
5.1	Site Conceptual Exposure Model (current and future uses)	The site is an active Shell-branded service station surrounded by mixed commercial and residential property. The site land use is not expected to change. Petroleum hydrocarbons, BTEX, and MTBE have been identified as chemicals of concern (COCs) for this site. The MTBE and BTEX plumes in groundwater are concentrated primarily on site, northwest and southeast of the UST complex near the western corner of the site. The TPHg plume extends west north-west of the site to Portofino Circle. The full extent of the TPHg plume is not defined. The proportions of TPHg and BTEX concentrations suggest relatively fresh gasoline and that new fuel releases appear to have recently occurred at the site. In the areas where the hydrocarbon plume is defined, attenuation with distance of TPHg and benzene concentrations is observed. In 2003, 67,000 ppb of TPHg was detected in the grab groundwater sample from SB-14, northwest of the site on	

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		Portofino Circle. Well MW-9 was installed to monitor the impact to groundwater in that area but the highest detection to date at that location has been 100 ppb of TPHg in March 2005 with all other results showing concentrations below the laboratory detection limit. The boring log for MW-9 shows an approximately 4-feet thick clay layer atop the clayey gravel in which groundwater was encountered in SB-14. This may be acting as a barrier that is forcing the impacted groundwater to a shallower depth at MW-9.	
5.2	Exposure Pathways	Potential exposure pathways include inhalation of COCs volatilized to indoor and outdoor air from impacted groundwater and soil on site by the commercial occupants of the site and/or the residential occupants of the west-northwestern adjacent properties. According to Weiss's 1992 well survey, an irrigation well is located approximately 2,000 feet downgradient of the site. If this well draws water from shallow sediments impacted by a petroleum release at the site, and that water is ingested, then direct human exposure by ingestion to shallow groundwater beneath the site would be a complete exposure pathway. Impacted surface soil (less than 10 fbg) has been encountered off site in monitoring well MW-6 and on site at the dispensers. Therefore, ingestion of, dermal exposure to, and inhalation of particulates from impacted soil are considered complete exposure pathways when performing groundbreaking work in these areas. An exposure evaluation flowchart is presented as Attachment I.	
5.3	Risk Assessment Status	In 2001, Cambria collected in-situ vapor and physical soil property samples and prepared a RBCA analysis of the potential risk to off-site receptors posed by hydrocarbons originating from the site. This evaluation showed that calculated excess cancer risk posed by the site was below the target risk level of 1×10^{-6}, and that the off-site conditions at the time did not pose a significant risk to off-site occupants directly adjacent to the site. Comparison of current groundwater data to CRWQCB Environmental Screening Levels (ESLs) indicate that there is a potential for excessive risk to commercial (on-site) and residential (off-site) occupants due to vapor intrusion to indoor air. However, the 1997 soil vapor results are below ESLs.	
5.4	Identified Human Exceedances	See above.	
5.5	Identified Ecological Exceedances	No ecological exceedances have been studied or identified.	

Site Address:	1784 150th Street	**Incident Number:**	98996068
City:	San Leandro, CA	**Regulator:**	Alameda County Health Care Services Agency
6	**Additional Recommended Data or Tasks**		
6.1	Continue groundwater monitoring.		
6.2	Continued monthly GWE from MW-11 until CAP completion		
6.3	Boring installation and grab groundwater sample collection adjacent to monitoring well MW-9 to a depth of approximately 22 fbg to determine if depth of MW-9 screen is cause of lack of evidence of impact seen at SB-14.		
6.4	UST upgrade sampling indicated possible release from dispensers or piping. Collect depth discrete soil samples in assumed source area around USTs and dispensers to provide additional vertical and lateral definition.		
6.5	Complete corrective action plan. Consideration of soil vapor extraction (SVE) or soil excavation in response to impacted soil in assumed source area to be based on the results of the depth discrete soil investigation.		

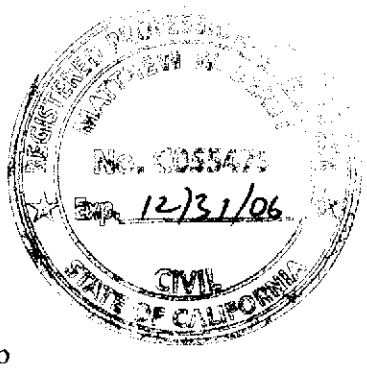
CLOSING

If you have any questions regarding the contents of this document, please call David Gibbs at (510) 420-3363.

Sincerely,
Cambria Environmental Technology, Inc.

David M. Gibbs, P.G.
Project Geologist

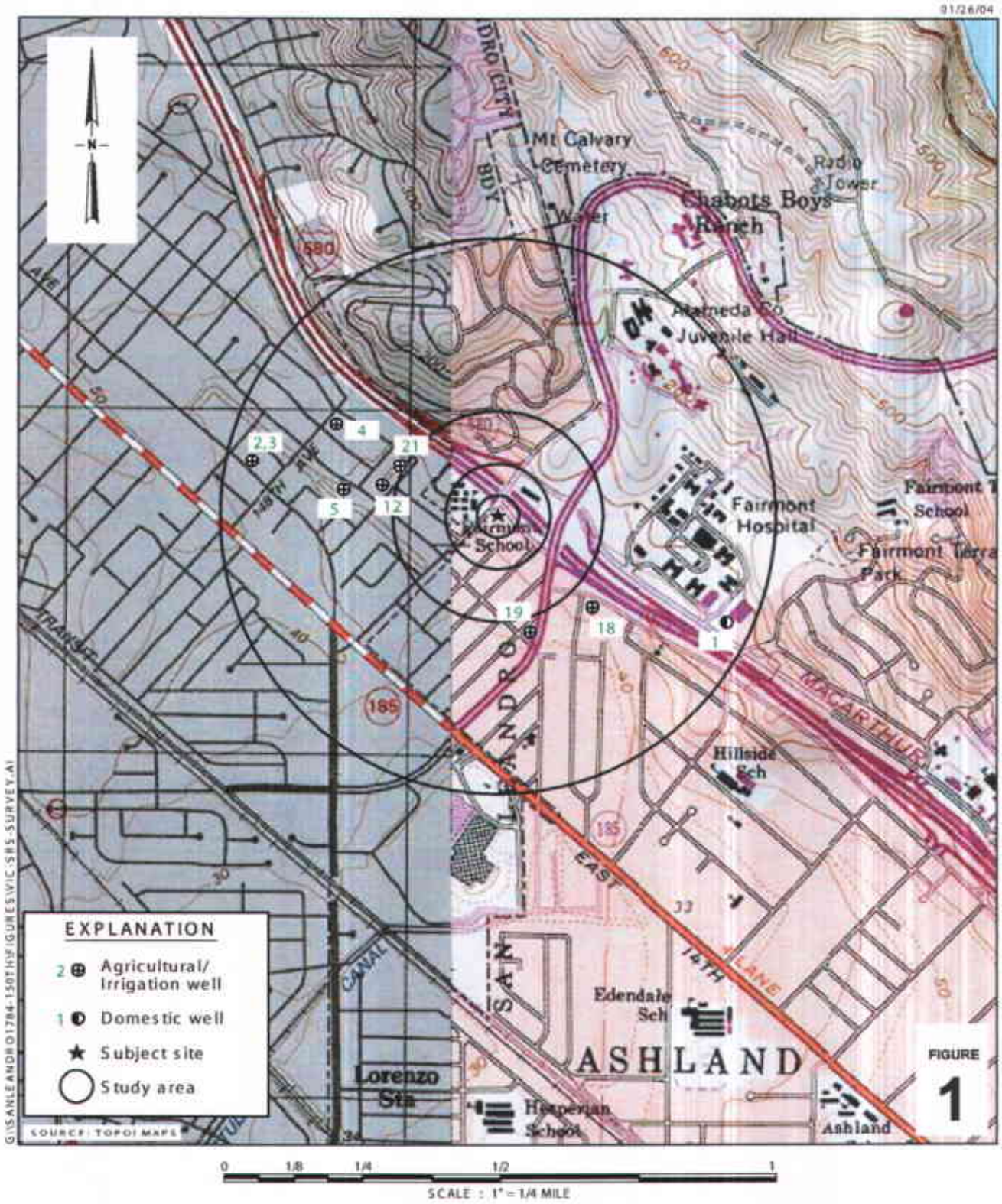
Matthew W. Derby, P.E.
Senior Project Engineer



Figures:
1- Vicinity/Sensitive Receptor Survey Map
2 - Groundwater Elevation Contour Map
3 - TPHg Isoconcentration Contours – Deep Water-Bearing Zone – 12/15/03
4 - Benzene Isoconcentration Contours – Deep Water-Bearing Zone – 12/15/03
5 - MTBE Isoconcentration Contours – Deep Water-Bearing Zone – 12/15/03
6 - TPHg Isoconcentration Contours – Deep Water-Bearing Zone – 6/30/05
7 - Benzene Isoconcentration Contours – Deep Water-Bearing Zone – 6/30/05
8 - MTBE Isoconcentration Contours – Deep Water-Bearing Zone – 6/30/05
9 - TPHg Isoconcentration Contours – Shallow Water-Bearing Zone – 12/15/03
10 - Benzene Isoconcentration Contours – Shallow Water-Bearing Zone – 12/15/03
11 - MTBE Isoconcentration Contours – Shallow Water-Bearing Zone – 12/15/03
12 - TPHg Isoconcentration Contours – Shallow Water-Bearing Zone – 6/30/05
13 - Benzene Isoconcentration Contours – Shallow Water-Bearing Zone –6/30/05
14 - MTBE Isoconcentration Contours – Shallow Water-Bearing Zone – 6/30/05

Attachments:
A - Historical Soil Data Table
B - Boring Logs
C - Well Survey Results
D - Historical Groundwater Data
E - Soil Vapor Sample Results
F - GWE and DPE Data Tables
G - Groundwater Elevation and Analytical Data
H - Plots of Chemical Concentration vs. Time and vs. Distance
I - Exposure Evaluation Flowchart

cc: Denis Brown, Shell Oil Products US, 20945 S. Wilmington, Carson CA 90810



Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident #98996068

CAMBRIA

Vicinity/Sensitive Receptor Survey Map
(1/2-Mile Radius)

EXPLANATION

- MW-1 — Monitoring well location
- MW-6 — Deep monitoring well location, not used for contouring
- MW-4 — Off-site monitoring well location (900 Jacklin Rd. properties)
- TB-1 — Tank backfill well location
- SB-7A — Soil boring location (11/04)
- SB-8 — Soil boring location (2/02)
- SB-1 — Soil boring location (7/01)
- T-1 — Trench soil sample location (9/97)
- D-1 — Dispenser soil sample location (9/97)
- Sanitary sewer line (SS)
- Water line (W)
- Telecommunications line (T, CATV)
- Manhole (MH)
- Fire hydrant (FH)
- Storm drain inlet
- Misc. utility vault, as labeled
- 0.004 — Groundwater flow direction and gradient (ft/ft)
- * — Data anomalous, not used for contouring
- xx.xx — Groundwater elevation contour, in feet above mean sea level (msl), approximately located

Well
ELEV
Benzene
MTBE
TBA

- Well designation
- Groundwater elevation, in feet above msl
- Benzene, MTBE, and TBA concentrations are in parts per billion and are analyzed by EPA Method 8260.

I-680 ON-RAMP

Shell Station
900 Jacklin Road

Bayhill Athletic Club

Day Care Facility

Office Building

Office Building

MW-1
19.05
<0.50
8.3
<5.0

MW-2
17.53*
<0.50
16
<5.0

MW-3
19.18
<0.50
4.7
<5.0

MW-4
18.92
<0.50
<0.50
<5.0

MW-5
18.10
<0.50
110
120

MW-6
17.65
<0.50
15
<5.0

MW-7
17.69
<5.0
410
130

MW-8
7.98
<0.50
81
81

SB-7A
SB-8A
SB-9
SB-10
SB-11
SB-12
SB-14
SB-15
SB-16

19.00
19.00
18.00
18.00

JACKLIN ROAD
HILLVIEW DRIVE
DE ANZA COURT
ALISAL COURT

0 30 60 120
Scale (ft)

FIGURE
2

Groundwater Elevation Contour Map

June 15, 2005

Alameda County
OCT 17 2005
Environmental Health

CAMBRIA

Shell-branded Service Station
990 Jacklin Road
Milpitas, California
Incident No.97250022

G:\MILPITAS 990 JACKLIN\FIGURES\2Q05 REVISED.DWG

09/08/05

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — TPHg isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / TPHg — Well designation; TPHg concentration, in ppb
- Dispenser number
- Product piping

PORTOFINO DRIVE
PORTOFINO CIRCLE
150TH AVENUE
FREEDOM AVENUE
I-580 OFF-RAMP
I-580
Residential
Residential (townhouses)
brick sound wall
private driveway (gated)
USTs
Shell Station
1784 150th Ave.
Denny's Restaurant
15015 Freedom Ave.
parking lot
MW-9 <50
MW-4
MW-8
MW-7
MW-5
MW-2 67,000
MW-11
MW-10 6,400
MW-1 63,000
MW-6
MW-3 1,800 - 6/25/03
BH-1 located 215' SE
BH-6 located 360' SE
100
1,000
10,000

0 25 50 100
Scale (ft)

FIGURE 3

TPHg Isoconcentration Contours - Deep Water-Bearing Zone

December 15, 2003

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

CAMBRIA

G:\SAN LEANDRO 1784 150TH\FIGURES\TPHG-4Q03-DEEP.DWG

08/15/05

PORTOFINO DRIVE

PORTOFINO CIRCLE

I-580

I-580 OFF-RAMP

150TH AVENUE

FREEDOM AVENUE

Residential

Residential (townhouses)

Residential (townhouses)

Residential (townhouses)

brick sound wall

private driveway (gated)

Shell Station
1784 150th Ave.

USTs

W/D UST

air comp.

former dispenser island

pulling bay

Denny's Restaurant
15015 Freedom Ave.

MW-9 <0.50

MW-4

MW-8

MW-7

MW-5

MW-2 18,000

MW-11

MW-10 3.1

MW-1 14,000

MW-6

MW-3 0.71 - 6/25/03

SB-9

SB-10

SB-11

SB-12

SB-13

SB-14

SB-15

SB-16

SB-17

SB-18

BH-1 located 215' SE

BH-5 located 360' SE

BH-1

BH-2

BH-3

BH-4

BH-5

BH-7

BH-8

BH-9

MH

SVS-1

SVS-2

SVS-3

SVS-4

SVS-5

SVS-6

SVS-7

SVS-8

SVS-9

SVS-10

SVS-11

SVS-12

SVS-13

SVS-14

SVS-15

SVS-16

1.0

10

100

1,000

10,000

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — Benzene isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / Benz. — Well designation; Benzene concentration, in ppb
- Dispenser number
- Product piping

0 25 50 100

Scale (ft)

Benzene Isoconcentration Contours - Deep Water-Bearing Zone

December 15, 2003

CAMBRIA

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

FIGURE 4

G:\SAN LEANDRO 1784 150TH\FIGURES\BENZ-4QD3-DEEP.DWG

08/15/05

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — MTBE isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / MTBE — Well designation; MTBE concentration, in ppb
- Dispenser number
- Product piping

MTBE Isoconcentration Contours - Deep Water-Bearing Zone

December 15, 2003

PORTOFINO DRIVE
PORTOFINO CIRCLE
150TH AVENUE
FREEDOM AVENUE
I-580
I-580 OFF-RAMP
Residential
Residential (townhouses)
brick sound wall
private driveway
parking lot
Denny's Restaurant
15015 Freedom Ave.
Shell Station
gpms. 1784 150th Ave.
USTs
MW-1 150
MW-2 11,000
MW-3 0.54 - 6/25/03
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9 2.5
MW-10 <1.0
MW-11
SB-17
SB-18
10
100
1,000
10,000
1.0
0 25 50 100
Scale (ft)

FIGURE 5

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

CAMBRIA

G:\SAN LEANDRO 1784 150TH\FIGURES\MTBE-4Q03-DEEP.DWG

08/15/05

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — TPHg isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / TPHg — Well designation; TPHg concentration, in ppb
- Dispenser number
- Product piping

TPHg Isoconcentration Contours - Deep Water-Bearing Zone

June 30, 2005

CAMBRIA

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

FIGURE **6**

0 25 50 100
Scale (ft)

G:\SAN LEANDRO 1784 150TH\FIGURES\TPHG-2Q05-DEEP.DWG

08/15/05

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — Benzene isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / Benz. — Well designation; Benzene concentration, in ppb
- Dispenser number
- Product piping

Benzene Isoconcentration Contours - Deep Water-Bearing Zone

June 30, 2005

CAMBRIA

PORTOFINO DRIVE
PORTOFINO CIRCLE
150TH AVENUE
FREEDOM AVENUE
I-580
I-580 OFF-RAMP
Residential
Residential (townhouses)
brick sound wall
MW-9 <0.50
MW-4
MW-8
MW-7
MW-5
MW-2 130
MW-11
MW-10 <0.50
MW-1 6,500
MW-6
MW-3 <2.0
SB-17
SB-18
USTs
Shell Station 1784 150th Ave.
Denny's Restaurant 15015 Freedom Ave.
BH-1 located 215' SE
BH-6 located 360' SE
1.0
10
100
1,000

0 25 50 100
Scale (ft)

FIGURE 7

Shell-branded Service Station

1784 150th Avenue
San Leandro, California
Incident No.98996068

G:\SAN LEANDRO 1784 150TH\FIGURES\BENZ-2Q05-DEEP.DWG

08/15/05

PORTOFINO DRIVE

PORTOFINO CIRCLE

150TH AVENUE

FREEDOM AVENUE

I-580

I-580 OFF-RAMP

Residential

Residential (townhouses)

brick sound wall

Shell Station
1784 150th Ave.

Denny's Restaurant
15015 Freedom Ave.

parking lot

USTs

MW-1 900

MW-2 320

MW-3 <2.0

MW-4

MW-5

MW-6

MW-7

MW-8

MW-9 <0.50

MW-10 <0.50

MW-11

SB-9

SB-10

SB-11

SB-12

SB-13

SB-14

SB-15

SB-16

SB-17

SB-18

BH-1

BH-2

BH-3

BH-4

BH-5

BH-6

BH-7

BH-8

SVS-1

SVS-2

SVS-3

SVS-4

SVS-5

SVS-6

SVS-7

SVS-8

SVS-9

SVS-10

SVS-11

SVS-12

SVS-13

SVS-14

SVS-15

SVS-16

1.0

10

100

BH-1 located 215° SE

BH-6 located 360° SE

0 25 50 100

Scale (ft)

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — MTBE isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / MTBE — Well designation; MTBE concentration, in ppb
- Dispenser number
- Product piping

MTBE Isoconcentration Contours - Deep Water-Bearing Zone

June 30, 2002

CAMBRIA

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

FIGURE 8

G:\SAN LEANDRO 1784 150TH\FIGURES\MTBE-2Q05-DEEP.DWG

08/15/05

TPHg Isoconcentration Contours - Shallow Water-Bearing Zone

December 15, 2003

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — TPHg isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / TPHg — Well designation; TPHg concentration, in ppb
- Dispenser number
- Product piping

PORTOFINO DRIVE
PORTOFINO CIRCLE
150TH AVENUE
FREEDOM AVENUE
I-580
I-580 OFF-RAMP
Residential
Residential (townhouses)
brick sound wall
MW-1
MW-2
MW-3
MW-4 57 - 6/24/03
MW-5 200
MW-6 <50
MW-7 27,000
MW-8 38,000
MW-9
MW-10
MW-11 110,000
100
1,000
10,000
SB-9
SB-10
SB-11
SB-12
SB-13
SB-14
SB-15
SB-16
SB-17
SB-18
BH-1
BH-2
BH-3
BH-4
BH-5
BH-6
BH-7
BH-8
BH-9
SVS-1
SVS-2
SVS-3
SVS-4
SVS-5
SVS-6
SVS-7
SVS-8
SVS-9
SVS-10
SVS-11
SVS-12
SVS-13
SVS-14
SVS-15
USTs
W/O UST
air comp.
Shell Station
1784 150th Ave.
Denny's Restaurant
15015 Freedom Ave.
parking lot
BH-1 located 215' SE
BH-6 located 380' SE

0 25 50 100
Scale (ft)

FIGURE 9

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

CAMBRIA

G:\SAN LEANDRO 1784 150TH\FIGURES\TPHG-4Q03-SHALLOW.DWG

08/15/05

Benzene Isoconcentration Contours - Shallow Water-Bearing Zone

December 15, 2003

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — Benzene isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / Benz. — Well designation; Benzene concentration, in ppb
- Dispenser number
- Product piping

PORTOFINO DRIVE
PORTOFINO CIRCLE
150TH AVENUE
FREEDOM AVENUE
I-580
I-580 OFF-RAMP
Residential
Residential (townhouses)
brick sound wall
Shell Station 1784 150th Ave.
USTs
W/O UST
parking lot
Denny's Restaurant 15015 Freedom Ave.
MW-1
MW-2
MW-3
MW-4 <0.50 - 6/24/03
MW-5 <0.50
MW-6 <0.50
MW-7 170
MW-8 290
MW-9
MW-10
MW-11 9,900
SB-9
SB-10
SB-11
SB-12
SB-13
SB-14
SB-15
SB-17
SB-18
BH-1 located 215' SE
BH-6 located 360' SE
1.0
10
100
1,000

0 25 50 100
Scale (ft)

FIGURE
10

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

CAMBRIA

G:\SAN LEANDRO 1784 150TH\FIGURES\BENZ-4Q03-SHALLOW.DWG

08/15/05

EXPLANATION

- MW-1 ■ Deep monitoring well location
- MW-4 ◆ Shallow monitoring well location
- SB-17 ◉ Soil boring location (Cambria, 9/04)
- SB-10 ◉ Soil boring location (Cambria, 6/03)
- SB-9 ◉ Soil boring location (Cambria, 10/02)
- SVS-11 △ Soil boring location (Cambria, 11/98)
- SVS-1 ▲ Soil boring location (Cambria, 7/96)
- BH-7 ◆ Soil boring location (Weiss, 3/95)
- BH-1 ◆ Soil boring location (Weiss, 6/94)
- 100 MTBE isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / MTBE — Well designation; MTBE concentration, in ppb
- Dispenser number
- Product piping

MTBE Isoconcentration Contours - Shallow Water-Bearing Zone

December 15, 2003

CAMBRIA

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

FIGURE **11**

Scale (ft): 0 25 50 100

G:\SAN LEANDRO 1784 150TH\FIGURES\MTBE-4Q03-SHALLOW.DWG

08/15/05

PORTOFINO DRIVE

PORTOFINO CIRCLE

Residential

MW-9

BH-4

I-580

I-580 OFF-RAMP

BH-8

SB-16

MW-4
<50

SB-10

SB-14

SB-13

BH-5

SB-12

100

100

MH

SVS-6

Residential

Residential

brick sound wall

1,000

SVS-7

SVS-8

MW-7
9,900

SVS-9

SB-11

BH-7

MW-8
19,000

SB-9

10,000

150TH AVENUE

1,000

MH

BH-3

BH-5

MW-5
3,200

MH

MW-11
100,000

W

SB-15

MW-10

BH-2

SVS-14

SVS-4

MW-2

SVS-11

SVS-5

Residential
(townhouses)

USTs

10,000

1,000

SVS-3

SVS-12

SVS-1

Residential
(townhouses)

SVS-15

MW-1

SVS-10

SVS-2

W/O
UST

air
comp

Shell Station
1784 150th Ave.

MW-3

100

MW-6
<50

SVS-13

FREEDOM AVENUE

I-580

Residential
(townhouses)

SB-17

SB-18

BH-1 located
215' SE

SVS-16

parking
lot

BH-6 located
360' SE

Denny's
Restaurant
15015 Freedom Ave.

0 25 50 100

Scale (ft)

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — TPHg isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / TPHg — Well designation; TPHg concentration, in ppb
- Dispenser number
- Product piping

TPHg Isoconcentration Contours
- Shallow Water-Bearing Zone

June 30, 2005

CAMBRIA

FIGURE
12

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

G:\SAN LEANDRO 1784 150TH\FIGURES\TPHG-2Q05-SHALLOW.DWG

08/15/05

PORTOFINO DRIVE

PORTOFINO CIRCLE

Residential

MW-9

BH-4

I-580

I-580 OFF-RAMP

BH-9

SB-16

MW-4
<0.50

SB-10

SB-14

SB-13

BH-5

SB-12

1.0

MH

SVS-6

Residential

brick sound wall

1.0

10

MW-7
27

SVS-7

SVS-8

SVS-9

SB-11

BH-7

SB-9

MW-8
110

100

150TH AVENUE

MH

BH-8

BH-3

MW-5
<5.0

MH

MW-11
4,200

1,000

SVS-14

SVS-4

MW-2

SB-15

MW-10

BH-2

SVS-11

SVS-5

1.0

1,000

Residential
(townhouses)

100

USTs

SVS-3

SVS-12

SVS-1

10

SVS-15

MW-1

SVS-10

W/O UST

air comp.

Shell Station
1784 150th Ave.

SVS-2

SVS-13

MW-3

1.0

MW-6
<0.50

Residential
(townhouses)

FREEDOM AVENUE

I-580

SB-17

SB-18

BH-1 located
215' SE

SVS-16

parking lot

BH-6 located
360' SE

Denny's
Restaurant
15015 Freedom Ave.

0 25 50 100

Scale (ft)

EXPLANATION

MW-1	Deep monitoring well location
MW-4	Shallow monitoring well location
SB-17	Soil boring location (Cambria, 9/04)
SB-10	Soil boring location (Cambria, 6/03)
SB-9	Soil boring location (Cambria, 10/02)
SVS-11	Soil boring location (Cambria, 11/98)
SVS-1	Soil boring location (Cambria, 7/96)
BH-7	Soil boring location (Weiss, 3/95)
BH-1	Soil boring location (Weiss, 6/94)
100	Benzene isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
Well / Benz.	Well designation / Benzene concentration, in ppb
	Dispenser number
	Product piping

Benzene Isoconcentration Contours
- Shallow Water-Bearing Zone

June 30, 2005

CAMBRIA

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

FIGURE
13

G:\SAN LEANDRO 1784 150TH\FIGURES\BENZ 2005-SHALLOW.DWG

08/15/05

MTBE Isoconcentration Contours - Shallow Water-Bearing Zone

June 30, 2005

EXPLANATION

- MW-1 — Deep monitoring well location
- MW-4 — Shallow monitoring well location
- SB-17 — Soil boring location (Cambria, 9/04)
- SB-10 — Soil boring location (Cambria, 6/03)
- SB-9 — Soil boring location (Cambria, 10/02)
- SVS-11 — Soil boring location (Cambria, 11/98)
- SVS-1 — Soil boring location (Cambria, 7/96)
- BH-7 — Soil boring location (Weiss, 3/95)
- BH-1 — Soil boring location (Weiss, 6/94)
- 100 — MTBE isoconcentration contour, in parts per billion (ppb), approximately located, dashed where inferred
- Well / MTBE — Well designation; MTBE concentration, in ppb
- Dispenser number
- Product piping

PORTOFINO DRIVE
PORTOFINO CIRCLE
150TH AVENUE
FREEDOM AVENUE
I-580
I-580 OFF-RAMP
Residential
Residential (townhouses)
brick sound wall
MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10 MW-11
<0.50 <5.0 <10 2,500
SB-9 SB-10 SB-11 SB-12 SB-13 SB-14 SB-15 SB-16 SB-17 SB-18
BH-1 BH-2 BH-3 BH-4 BH-5 BH-6 BH-7 BH-8 BH-9
SVS-1 SVS-2 SVS-3 SVS-4 SVS-5 SVS-6 SVS-7 SVS-8 SVS-9 SVS-10 SVS-11 SVS-12 SVS-13 SVS-14 SVS-15 SVS-16
1.0 10 100 1,000
MH
USTs
w/o UST
air comp.
Shell Station
1784 150th Ave.
parking lot
Denny's Restaurant
15015 Freedom Ave.
BH-1 located 215° SE
BH-6 located 360° SE

0 25 50 100
Scale (ft)

FIGURE
14

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident No.98996068

CAMBRIA

G:\SAN LEANDRO 1784 150TH\FIGURES\MTBE-2Q05-SHALLOW.DWG

ATTACHMENT A

Historical Soil Data Tables

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE (8020)	MTBE (8260)	TBA	ETBE	DIPE	TAME	1,2-DCA	EDB	Ethanol	TOG	Lead
		(fbg)	(Concentrations in mg/kg)															
Soil #1	11/7/1986	8.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	196	---
Soil #2	11/11/086	11.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	167.4	---
BH-A[a,b]	3/5/1990	5.0	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-A[a,b]	3/5/1990	15.7	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-A[a,b,c]	3/5/1990	24.7	<1	**0.020**	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-A[a,d]	3/5/1990	29.2	**35**	**0.23**	**0.20**	<0.0025	**0.64**	---	---	---	---	---	---	---	---	---	---	---
BH-A[a,b]	3/5/1990	41.2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-B[b]	2/4/1992	11.5	<1	**0.0026**	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-B	2/4/1992	16.5	<1	**0.0058**	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-B[b,e]	2/4/1992	21.5	**79**	**0.20**	**0.60**	**1.0**	**4.1**	---	---	---	---	---	---	---	---	---	---	---
BH-B	2/4/1992	26.5	**74**	**0.59**	**0.91**	**1.5**	**3.9**	---	---	---	---	---	---	---	---	---	---	---
BH-C[b]	2/5/1992	11.5	<1	**0.0042**	**0.0029**	**0.0039**	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-C[b]	2/5/1992	21.5	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-C[b,f]	2/5/1992	26.5	**3.9**	<0.0025	<0.0025	<0.0025	**0.0054**	---	---	---	---	---	---	---	---	---	---	---
BH-C	2/5/1992	31.5	**68**	<0.05	<0.05	<0.05	**0.17**	---	---	---	---	---	---	---	---	---	---	---
BH-1-21	6/6/1994	21	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---	---	---
BH-2-20	6/6/1994	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---	---	---
BH-3-16[g]	6/6/1994	16	<1.0	**0.013**	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---	---	---
BH-4-20.6	6/7/1994	20.6	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---	---	---
BH-5-15.6	6/7/1994	15.6	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---	---	---
BH-6-20.5	6/7/1994	20.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---	---	---
BH-7-15.8	2/14/1995	15.8	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-8-16.0	2/14/1995	16.0	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-9-19.5	2/14/1995	19.5	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---	---	---	---	---
BH-10-15.2	3/3/1995	15.2	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---	---	---
SVS-3	7/18-19/96	16-18	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-5	7/18-19/96	4-6	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-5	7/18-19/96	8-10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-5	7/18-19/96	18-20	**1.1**	<0.005	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-9	7/18-19/96	3-5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-9	7/18-19/96	8-10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-9	7/18-19/96	16-18	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---	---	---	---
Disp-A	12/4/1997	2.0	**3.1**	<0.005	**0.037**	**0.022**	<0.01	**0.019**	---	---	---	---	---	---	---	---	---	---
Disp-A, 4.5	12/4/1997	4.5	**6.3**	**0.096**	**0.012**	**0.46**	**0.037**	**0.056**	---	---	---	---	---	---	---	---	---	---
Disp-B	12/4/1997	2.0	**130**	<1	<1	<1	<2	<1	---	---	---	---	---	---	---	---	---	---
Disp-B, 4.5	12/4/1997	4.5	**1.0**	**0.045**	<0.005	**0.064**	**0.32**	<0.03	---	---	---	---	---	---	---	---	---	---
Disp-C	12/4/1997	2.0	**190**	**1.8**	**2.1**	**3.6**	**20**	**1.4**	---	---	---	---	---	---	---	---	---	---
Disp-C, 4.5[h]	12/4/1997	4.5	**590**	<0.5	**0.98**	**2.3**	3.1	<0.5	---	---	---	---	---	---	---	---	---	---

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE (8020)	MTBE (8260)	TBA	ETBE	DIPE	TAME	1,2-DCA	EDB	Ethanol	TOG	Lead
		(fbg)	(Concentrations in mg/kg)															
Disp-D	12/4/1997	2.0	**3.8**	**0.11**	<0.005	**0.15**	**0.17**	**0.11**	---	---	---	---	---	---	---	---	---	---
Disp-D, 4.5	12/4/1997	4.5	**1.4**	**0.027**	<0.005	**0.036**	**0.178**	**0.005**	---	---	---	---	---	---	---	---	---	---
SVS-11-5.5	11/10/1998	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-11-6	11/10/1998	6	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-11-9.5	11/10/1998	9.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-11-10	11/10/1998	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-11-15	11/10/1998	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-11-15.5	11/10/1998	15.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-11-19	11/10/1998	19	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-11-19.5	11/10/1998	19.5	**1.6**	**0.0050**	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-14-5	11/11/1998	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-14-5.5	11/11/1998	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-14-10	11/11/1998	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-14-10.5	11/11/1998	10.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-14-15	11/11/1998	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-14-15.5	11/11/1998	15.5	<1.0	<0.0050	**0.006**	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-14-19	11/11/1998	19	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.029**	<25	---	---	---	---	---	---	---	---	---
SVS-14-19.5	11/11/1998	19.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-15-4.5	11/11/1998	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-15-5	11/11/1998	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-15-10	11/11/1998	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-15-10.5	11/11/1998	10.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-15-15	11/11/1998	15	<1.0	<0.0050	<0.0050	<0.0050	**0.013**	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-15-15.5	11/11/1998	15.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-15-19.5	11/11/1998	19.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-15-20	11/11/1998	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-16-5	11/11/1998	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-16-5.5	11/11/1998	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-16-10	11/11/1998	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-16-10.5	11/11/1998	10.5	<1.0	<0.0050	<0.0050	<0.0050	**0.0093**	**0.026**	---	---	---	---	---	---	---	---	---	---
SVS-16-15	11/11/1998	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
SVS-16-15.5	11/11/1998	15.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---	---	---	---	---	---	---
MW-5-515.5	10/24/2001	15.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-6-5.5	10/24/2001	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	**0.012**	---	---	---	---	---	---	---	---	---
MW7@5'	10/3/2002	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5	---	---	---	---	---	---	---	---	---
MW7@10'	10/3/2002	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5	---	---	---	---	---	---	---	---	---
MW7@15'	10/3/2002	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5	---	---	---	---	---	---	---	---	---
MW7@20'	10/3/2002	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5	---	---	---	---	---	---	---	---	---
MW7@25'	10/3/2002	25	**11**	<0.0050	**0.0060**	**0.086**	**0.13**	---	<0.5	---	---	---	---	---	---	---	---	---
MW7@30'	10/3/2002	30	**68**	<0.025	**0.19**	**0.89**	**3.7**	---	<0.5	---	---	---	---	---	---	---	---	---
MW7@32'	10/3/2002	32	**1.2**	<0.0050	**0.0069**	**0.025**	**0.11**	---	<0.5	---	---	---	---	---	---	---	---	---

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE (8020)	MTBE (8260)	TBA	ETBE	DIPE	TAME	1,2-DCA	EDB	Ethanol	TOG	Lead
		(fbg)	(Concentrations in mg/kg)															
MW8@5'	10/4/2002	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5	---	---	---	---	---	---	---	---	---
MW8@10'	10/4/2002	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5	---	---	---	---	---	---	---	---	---
MW8@15'	10/4/2002	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5	---	---	---	---	---	---	---	---	---
MW8@20'	10/4/2002	20	1.2	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5	---	---	---	---	---	---	---	---	---
MW8@25'	10/4/2002	25	**140**	**0.072**	**0.15**	**1.5**	**5.8**	---	<0.5	---	---	---	---	---	---	---	---	---
SB9@22	10/4/2002	22	1.1	<0.0050	<0.0050	**0.016**	**0.088**	---	<0.5	---	---	---	---	---	---	---	---	---
SB-10-10'	6/23/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-10-20'	6/23/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-10-22'	6/23/2003	22	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-10-25'	6/23/2003	25	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-10-30	6/23/2003	30	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-10-37'	6/23/2003	37	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-10-39.5'	6/23/2003	39.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-11-10'	6/24/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-11-15'	6/24/2003	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-11-20'	6/24/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-11-24'	6/24/2003	24	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-11-28'	6/24/2003	28	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-11-30'	6/24/2003	30	**650**	<0.50	<0.50	**3.5**	**9.9**	---	<0.50	---	---	---	---	---	---	---	---	---
SB-12-10'	6/24/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-12-20'	6/24/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-12-25'	6/24/2003	25	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-12-30'	6/24/2003	30	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-12-35'	6/24/2003	35	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-12-39.5'	6/24/2003	39.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-13-10'	6/23/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-13-20'	6/23/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-13-24'	6/23/2003	24	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-13-30'	6/23/2003	30	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-13-35'	6/23/2003	35	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-13-39.5'	6/23/2003	39.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-14-10'	6/24/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-14-20'	6/24/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-14-24'	6/24/2003	24	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-14-30'	6/24/2003	30	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-14-35'	6/24/2003	35	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-14-39.5'	6/24/2003	39.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-15-10'	6/26/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-15-15'	6/26/2003	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-15-20'	6/26/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-15-22.5'	6/26/2003	22.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-15-35'	6/26/2003	35	1.4	0.10	<0.0050	0.030	0.0055	---	<0.0050	---	---	---	---	---	---	---	---	---

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE (8020)	MTBE (8260)	TBA	ETBE	DIPE	TAME	1,2-DCA	EDB	Ethanol	TOG	Lead
		(fbg)	(Concentrations in mg/kg)															
SB-16-10'	6/23/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-16-20'	6/23/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-16-24'	6/23/2003	24	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-16-28'	6/23/2003	28	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-16-35'	6/23/2003	35	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SB-16-39.5'	6/23/2003	39.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-9-5'	11/19/2003	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-9-10'	11/19/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-9-15'	11/19/2003	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-9-20'	11/19/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-9-25'	11/19/2003	25	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-9-30'	11/19/2003	30	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-9-35'	11/19/2003	35	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-10-5'	11/20/2003	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-10-10'	11/20/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-10-15'	11/20/2003	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-10-20'	11/20/2003	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-10-25'	11/20/2003	25	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-10-30'	11/20/2003	30	**14**	<0.023	<0.023	<0.023	<0.023	---	<0.023	---	---	---	---	---	---	---	---	---
MW-10-31.5'	11/20/2003	31.5	**230**	<0.50	<0.50	**2.2**	**1.5**	---	<0.50	---	---	---	---	---	---	---	---	---
MW-11-5'	11/20/2003	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-11-10'	11/20/2003	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-11-15'	11/20/2003	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
MW-11-20'	11/20/2003	20	**1.8**	<0.0050	<0.0050	**0.0084**	**0.013**	---	**0.039**	---	---	---	---	---	---	---	---	---
MW-11-24.5'	11/20/2003	24.5	**330**	<0.50	**1.6**	**4.8**	**29**	---	**1.4**	---	---	---	---	---	---	---	---	---
SB-17-5'	9/13/2004	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-17-10'	9/13/2004	10.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-17-15'	9/13/2004	15.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-17-20'	9/13/2004	20.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-17-25'	9/13/2004	25.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-17-35.5'	9/13/2004	35.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-18-5'	9/13/2004	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-18-10'	9/13/2004	10.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-18-15'	9/13/2004	15.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-18-20'	9/13/2004	20.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-18-25'	9/13/2004	25.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
SB-18-30'	9/13/2004	30.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.10	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.1	---	---
D-1-3.5	3/22/2005	3.5	**460**	**0.76**	**0.17**	**16**	**8.1**	---	**0.18**	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	---	---	**75.7**
D-1-5.0	4/4/2005	5.0	**330**	<0.50	**0.75**	**3.2**	**0.91**	---	<0.50	---	---	---	---	---	---	---	---	---
D-2-3.5	3/22/2005	3.5	**1400**	**1.6**	**75**	**18**	**170**	---	**0.066**	<0.15	<0.25	<0.25	<0.25	<0.25	<0.25	---	---	**2.06**
D-2-5.0	4/4/2005	5.0	<50	<0.50	<0.50	<0.50	**0.95**	---	<0.50	---	---	---	---	---	---	---	---	---
D-3-3.5	3/22/2005	3.5	**30**	**0.78**	**0.24**	1.8	**2.7**	---	**0.053**	**0.023**	<0.050	<0.050	<0.050	<0.050	<0.050	---	---	**5.19**

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE (8020)	MTBE (8260)	TBA	ETBE	DIPE	TAME	1,2-DCA	EDB	Ethanol	TOG	Lead
		(fbg)	(Concentrations in mg/kg)															
D-4-3.5	3/22/2005	3.5	**110**	**0.52**	**6.3**	**1.3**	**10**	---	**0.028**	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	---	---	1.89
D-4-5.0	4/4/2005	5.0	**290**	<0.50	<0.50	**6.3**	**3.6**	---	<0.50	---	---	---	---	---	---	---	---	---
P-1-2.5	4/4/2005	2.5	<50	<0.50	<0.50	<0.50	**0.87**	---	<0.50	---	---	---	---	---	---	---	---	---
P-1-5.0	4/4/2005	5.0	**69**	<0.50	<0.50	**1.1**	**5.0**	---	<0.50	---	---	---	---	---	---	---	---	---
P-2-3.5	4/4/2005	3.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	**0.013**	---	---	---	---	---	---	---	---	---
P-2-5.0	4/4/2005	5.0	**85**	<0.50	<0.50	**0.84**	**0.50**	---	<0.50	---	---	---	---	---	---	---	---	---
P-3-3.0	4/4/2005	3.0	**2300**	<1.0	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	---	---	---	---	---
P-4-2.5	4/4/2005	2.5	**3700**	**11**	**83**	**42**	**280**	---	<1.0	---	---	---	---	---	---	---	---	---
P-4-5.0	4/4/2005	5.0	**4100**	**10**	**23**	**48**	**240**	---	<2.5	---	---	---	---	---	---	---	---	---

Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline. From 1990 through 1998, analyzed by modified EPA Method 8015; from 2001 through 2004, analyzed by EPA Method 8260B.
Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8020 from 1990 through 1998; from 2001 through 2004, analyzed by EPA Method 8260B.
MTBE = Methyl tert-butyl ether analyzed by EPA Method 8020 or EPA Method 8260 (as indicated).
TBA = Tert-Butyl alcohol, analyzed by EPA Method 8260B.
ETBE = Ethyl tert butyl ether, analyzed by EPA Method 8260B.
DIPE = Di-isopropyl Ether, analyzed by EPA Method 8260B.
TAME = tert-Amyl methyl ether, analyzed by EPA Method 8260B.
1,2-DCA = 1,2-dichloroethane
EDB = Ethyl di-bromide, analyzed by EPA Method 8260B.
Ethanol analyzed by EPA Method 8260B.
fbg = Feet below grade
mg/kg = Milligrams per kilogram
<n = Below detection limit of n mg/kg
--- = Not analyzed

Notes:

a = Petroleum oil and grease analyzed by American Public Health Association Standard Method 503E; no detections above 100 ppm detection limit. Total oil and grease analyzed by American Public Health Association Standard Method 503E; no detections above 50 ppm detection limit.
b = Analyzed for halogenated volatile organic compounds by EPA Method 8010; none detected.
c = Total petroleum hydrocarbons as diesel (TPHd) and total petroleum hydrocarbons as motor oil (TPHmo) analyzed by modified EPA Method 8015; no TPHd detected at 1 ppm limit; no TPHmo detected at 10 ppm limit.
e = TPHd detected at 23 ppm by modified EPA Method 8015; lab characterized detected compounds as hydrocarbons lighter than diesel.
f = TPHd detected at 4.9 ppm by modified EPA Method 8015; lab characterized detected compounds as hydrocarbons lighter than diesel.
g = Analyzed for volatile organic compounds by EPA Method 8010; none detected above detection limits ranging from 0.005 to 0.050 ppm.
h = Sample saturated with perched water from beneath dispenser.

G:\San Leandro 1784 150th\[Soil Summary 1784 150th.xls]Soil Summary

Table 3. Analytic Results for Soil Samples - Shell Service Station, WIC #204-6852-1404, 1784 - 150th Avenue, San Leandro, California

Sample ID	Depth (feet)	Moisture (%)	pH (pH units)	Particle Size Distribution (<70%)	Dry Bulk Density (gm/cc)	Natural Bulk Density (gm/cc)	Fraction O.C. (%)
SVS-3	4-6	16	9.0	4.87	1.79	2.11	0.31
	16-18	16	8.8	15.89	1.65	2.04	0.13
SVS-5	4-6	24	8.9	4.1	1.37	1.84	1.20
	8-10	24	9.0	1.28	1.42	1.87	1.00
	18-20	14	9.2	5.27	1.69	2.07	0.12
SVS-9	3-5	23	9.0	1.79	1.45	1.90	0.98
	8-10	21	8.9	2.44	1.53	1.95	0.43
	16-18	14	8.7	4.37	1.91	2.22	0.14

Notes:

Moisture Percent by EPA Method 160.3.
pH by EPA Method 9045.
Particle Size Distribution by ASTM Method D422.
Dry Bulk Density by American Petroleum Institute Recommended Procedure-40.
Natural Bulk Density by American Petroleum Institute Recommended Procedure-40.
Samples collected on 7/18/96 and 7/19/96 and analyzed by Sequoia Analytical of Redwood City, California and Core Laboratories of Bakersfield, California.

Abbreviations:

Fraction O.C. = Organic Carbon by Walkey Black Method
gm/cc = grams per cubic centimeter

Table 2. Analytic Results for Soil Samples - Shell Service Station, WIC #204-6852-1404, 1784 - 150th Avenue, San Leandro, California

Sample ID	Depth (feet)	TPH-G	MTBE	B	E	T	X
		← parts per million (mg/kg) →					
SVS-3	16-18	<1.0	<0.025	<0.005	<0.005	<0.005	<0.005
SVS-5	4-6	<1.0	<0.025	<0.005	<0.005	<0.005	<0.005
	8-10	<1.0	<0.025	<0.005	<0.005	<0.005	<0.005
	18-20	1.1	<0.025	<0.005	<0.005	<0.005	<0.005
SVS-9	3-5	<1.0	<0.025	<0.005	<0.005	<0.005	<0.005
	8-10	<1.0	<0.025	<0.005	<0.005	<0.005	<0.005
	16-18	<1.0	<0.025	<0.005	<0.005	<0.005	<0.005

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
MTBE = Methyl-t-butyl-ether by EPA Method 8020
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Total xylenes by EPA Method 8020
<n = Not detected at laboratory reporting limit of n ppm

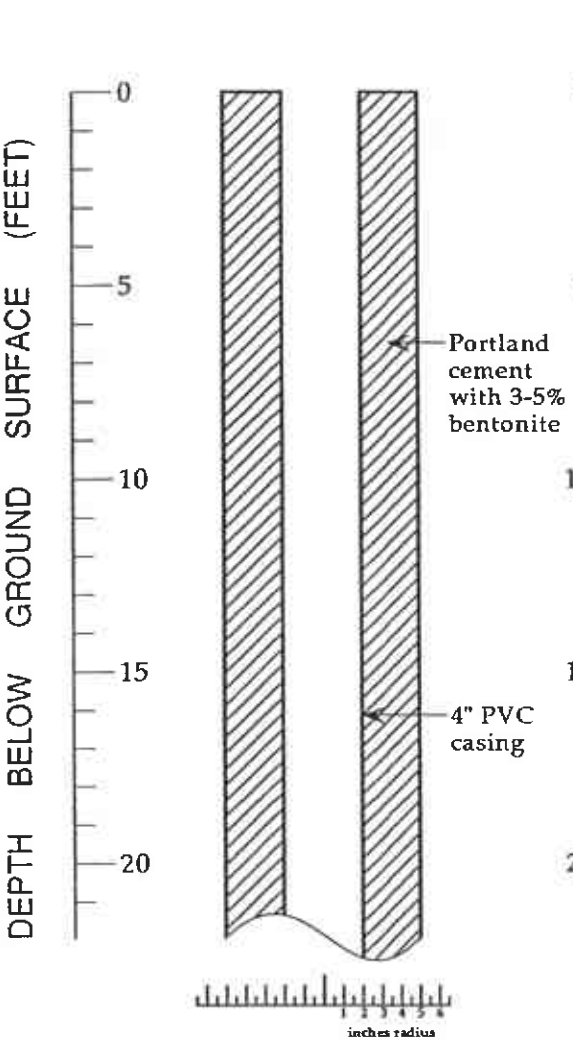
Notes:

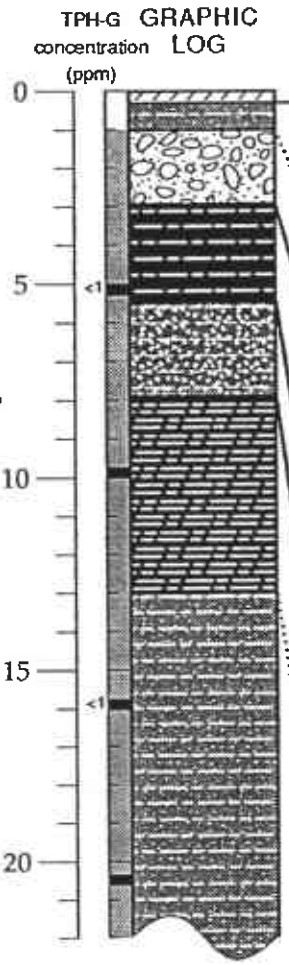
Samples collected on 7/18/96 and 7/19/96 and analyzed by Sequoia Analytical of Redwood City, California.

ATTACHMENT B

Borings Logs

WELL MW-1 (BH-A)





DESCRIPTION

Asphaltic concrete

Sandy SILT (ML); dark brown; soft; damp; <5% clay; 75% silt; 25% fine to medium sand; low plasticity; low to moderate K

Gravelly SAND (SW); brown; medium dense; dry; 15% silt; 60% sand; 25% weathered gravel to 2" diameter; moderate to high K

Silty CLAY (CL); dark brown mottled orange and green; stiff; damp; 45% clay; 30% silt; 25% sand; medium to high plasticity; very low K

Gravelly sand lens at 5.3'

Silty SAND (SM); dark brown; loose; moist; <5% clay; 35% silt; 45% fine to coarse sand; 20% gravel to 1" diameter; moderate to high K

Clayey SILT/Silty CLAY (OH); black; medium stiff; 40% clay; 40% silt; 20% very fine sand; roots and grasses; high plasticity; very low K

Tile shard at 9.7'

Sandy SILT/Clayey SILT (ML); green-gray; very stiff; damp; 20% clay; 60% silt; 20% fine to coarse sand; medium to high plasticity; low K

3" sandy GRAVEL lens at 18.0'

Rootlets at 18.7'

Light brown-gray from 19.5'

6" sand lens at 22'

EXPLANATION

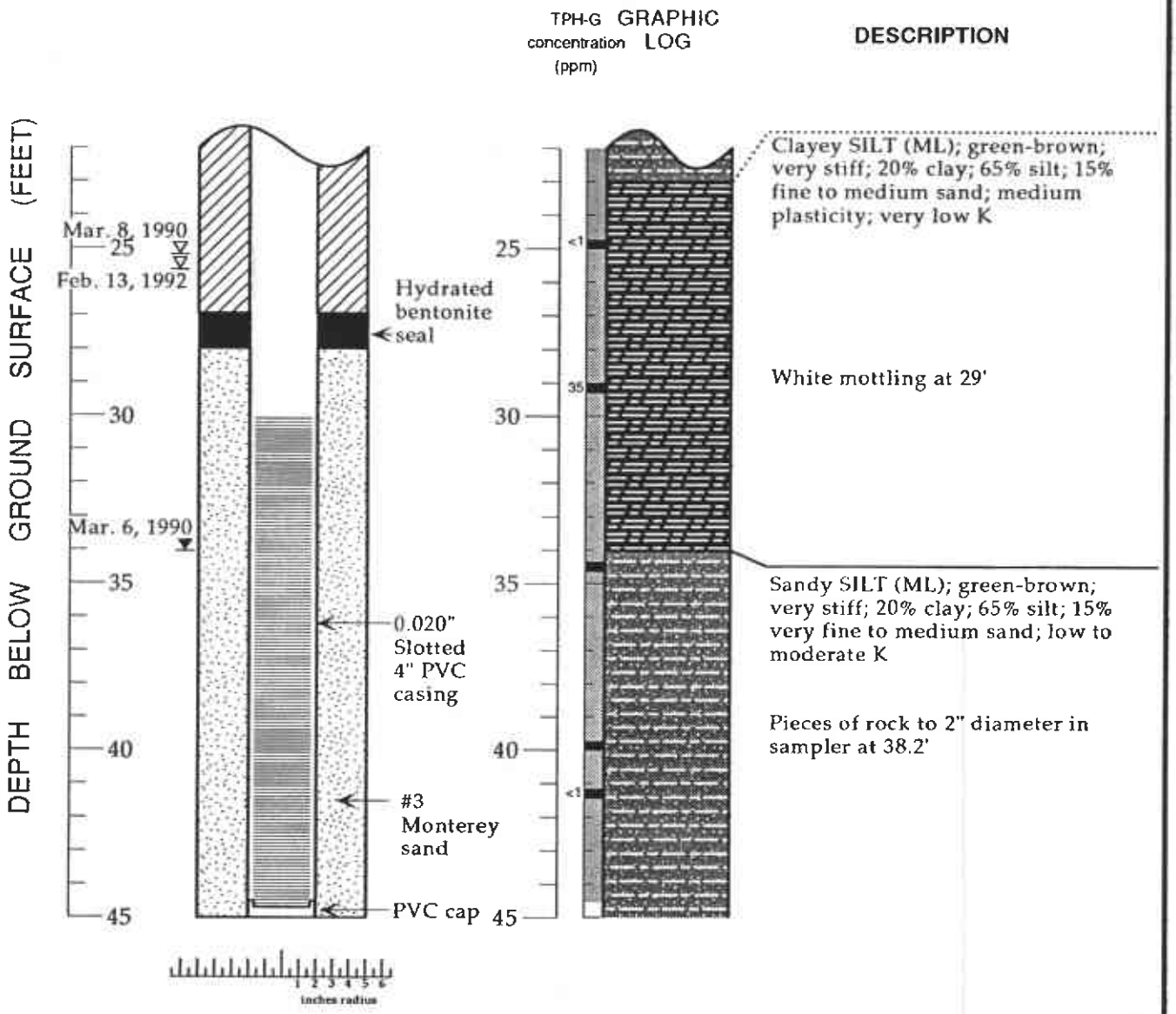
- ▼ Water level during drilling (date)
- ▽ Water level (date)
- ---------- Contact (dotted where approximate)
- —?—?— Uncertain contact
- ////////// Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Karen Sixt
Supervisor: Richard Weiss; CEG 1112
Drilling Company: HEW Drilling, East Palo Alto, CA
License Number: Lic. #C57-61384167
Driller: Casto Pineda
Drilling Method: Hollow-stem auger
Date Drilled: March 6, 1990
Well Head Completion: 4" locking well-plug, traffic-rated vault
Type of Sampler: Split barrel (2" ID)
Ground Surface Elevation: 49.48 feet above mean sea level
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log and Well Construction Details - Well MW-1 (BH-A) - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

2/26/92

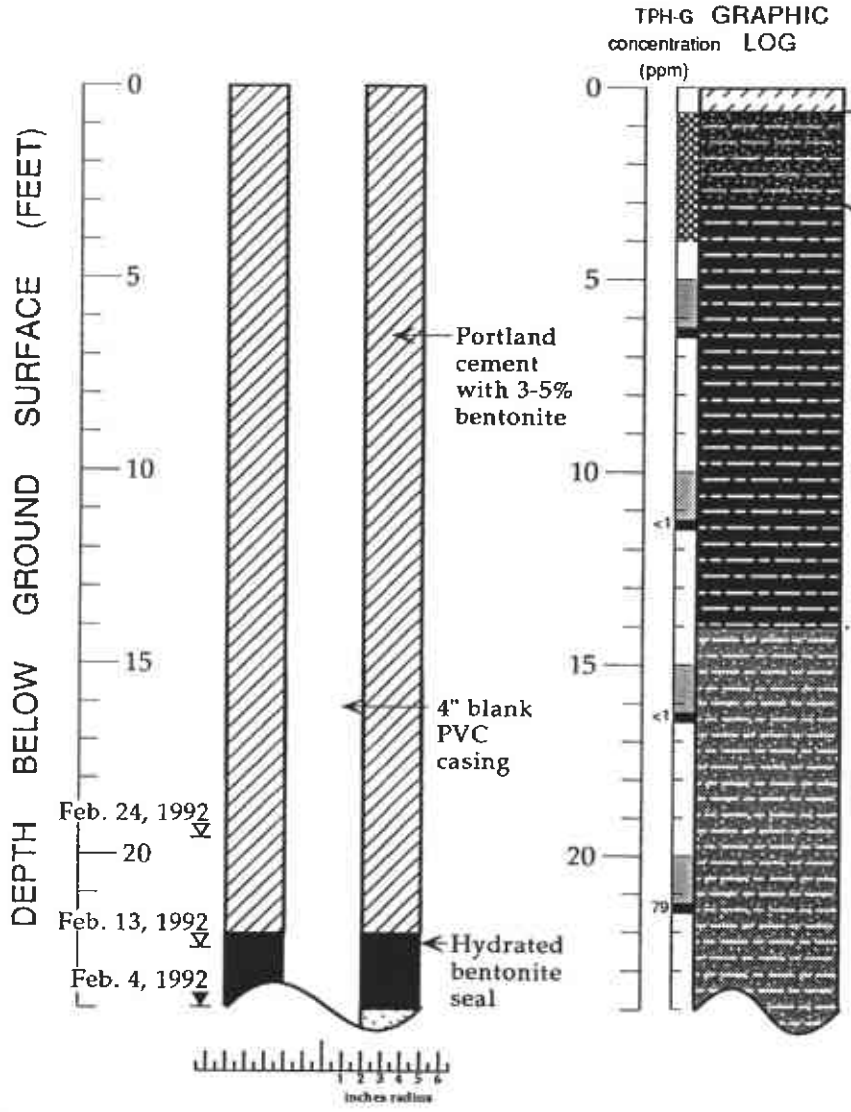
WELL MW-1 (BH-A) (cont.)



Boring Log and Well Construction Details - Well MW-1 (BH-A) - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

2/26/92

WELL MW-2 (BH-B)



EXPLANATION

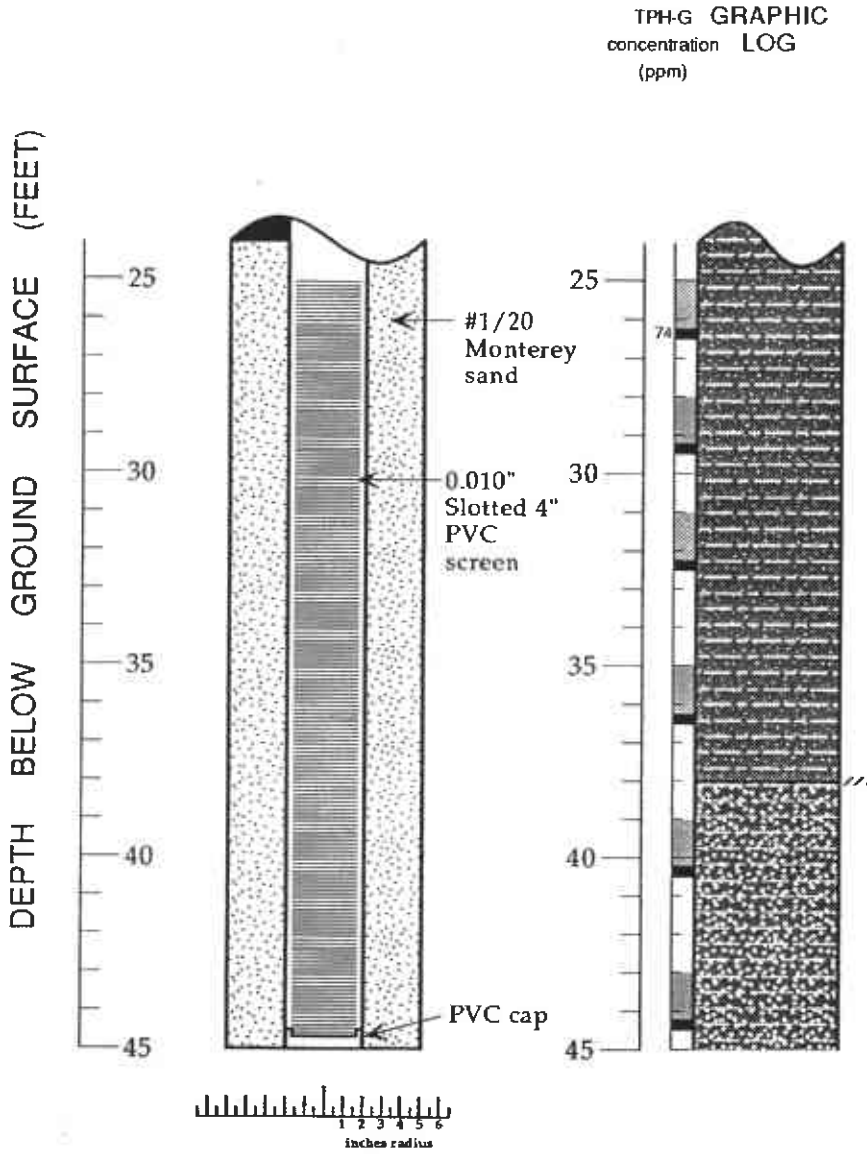
- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- —?—?— Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Tom Fojut
Supervisor: Joseph P. Theisen; CEG 1645
Drilling Company: Soils Exploration Services, Benicia, CA
License Number: Lic. #C57-582696
Driller: Courtney Mossman
Drilling Method: Hollow-stem auger
Date Drilled: February 4 , 1992
Well Head Completion: 4" locking well-plug, traffic-rated vault
Type of Sampler: Split barrel (2" ID)
Ground Surface Elevation: 46.18 feet above mean sea level
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log and Well Construction Details - Well MW-2 (BH-B) - Shell Service Station WIC #204-6852-1404 - 1784 150th Avenue, San Leandro, California

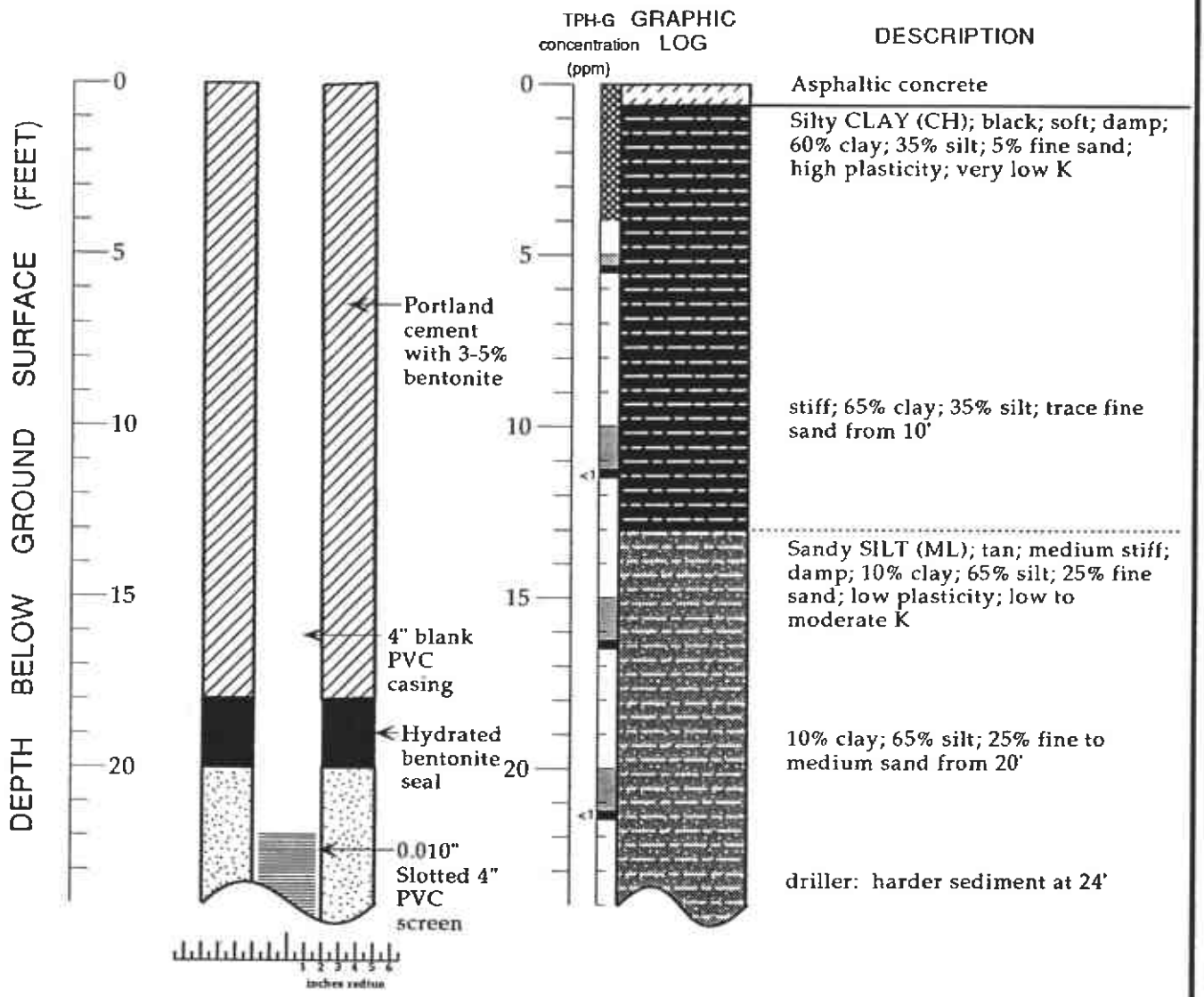
2/26/92

WELL MW-2 (BH-B) (cont.)



Boring Log and Well Construction Details - Well MW-2 (BH-B) - Shell Servie Station WIC #204-6852-1404 - 1784 150th Avenue, San Leandro, California

WELL MW-3 (BH-C)



EXPLANATION

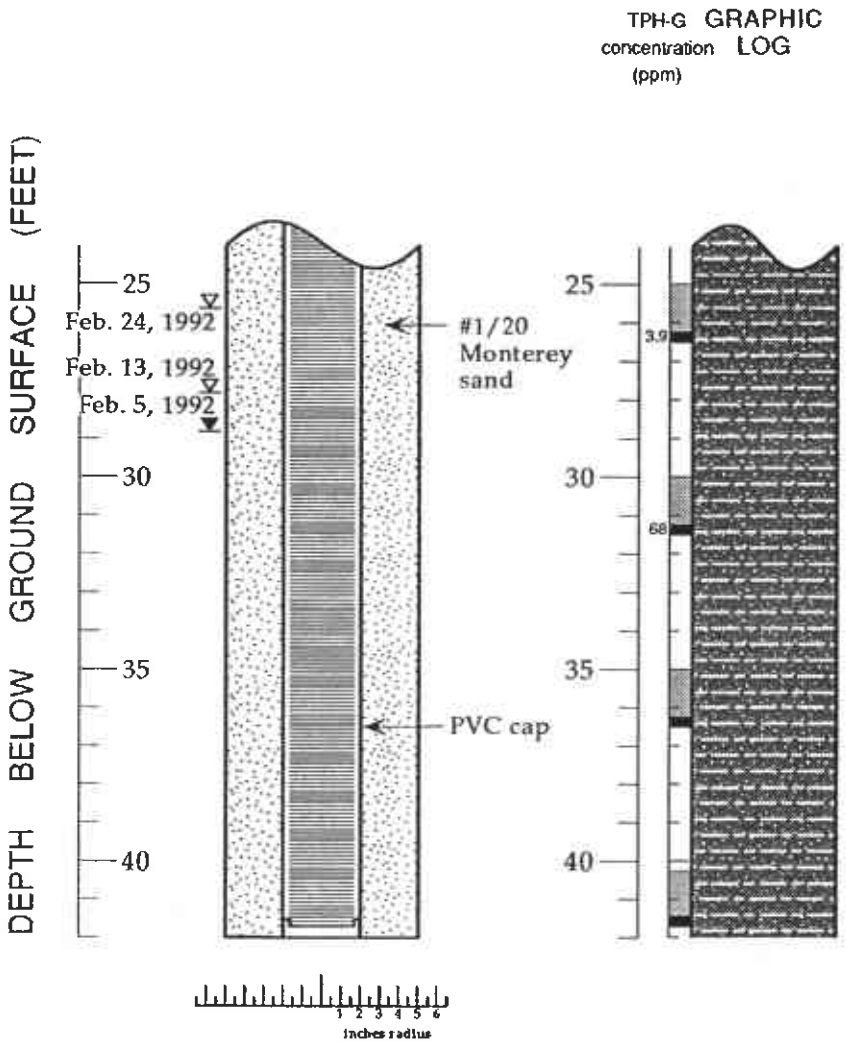
- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Tom Fojut
Supervisor: Joseph P. Theisen; CEG 1645
Drilling Company: Soils Exploration Services, Benicia, CA
License Number: Lic. #C57-582696
Driller: Courtney Mossman
Drilling Method: Hollow-stem auger
Date Drilled: February 5, 1992
Well Head Completion: 4" locking well-plug, traffic-rated vault
Type of Sampler: Split barrel (2" ID)
Ground Surface Elevation: 52.35 feet above mean sea level
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log and Well Construction Details - Well MW-3 (BH-C) - Shell Service Station WIC #204-6852-1404 - 1784 150th Avenue, San Leandro, California

4/1/92

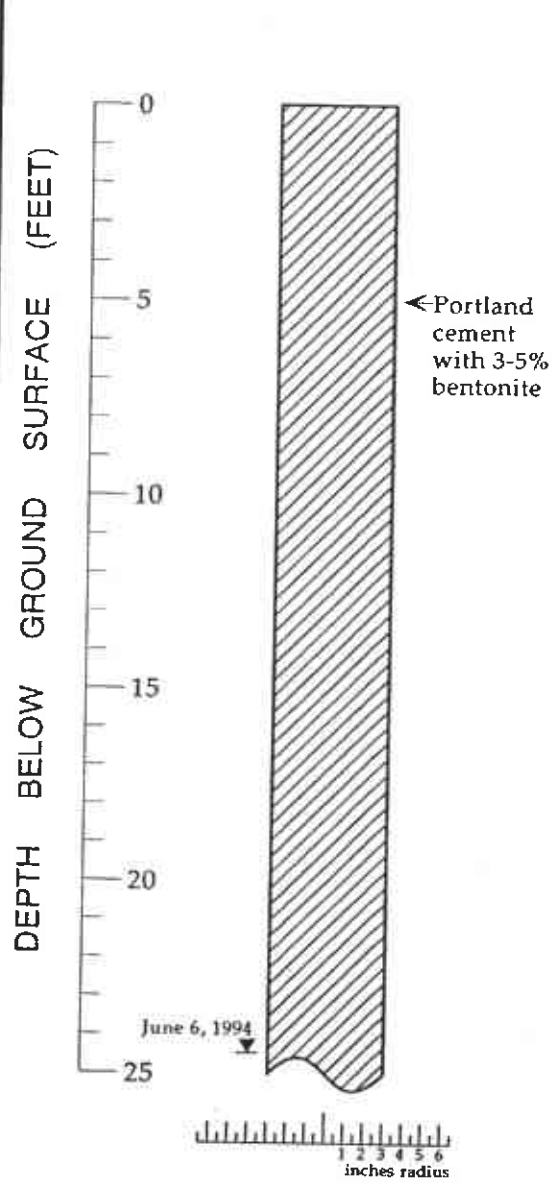
WELL MW-3 (BH-C) (cont.)

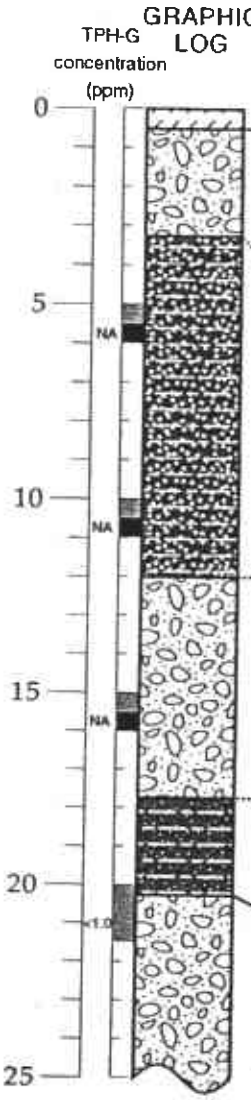


Boring Log and Well Construction Details - Well MW-3 (BH-C) - Shell Servie Station WIC #204-6852-1404 - 1784 150th Avenue, San Leandro, California

2/26/92

SOIL BORING BH-1





DESCRIPTION

Asphaltic concrete

70% Gravelly SAND (SW); brown; medium dense; damp; 10% silt; 60 % sand (20% fine, 40% medium to course); 10% subangular gravel to 1/2" diameter; moderate K; 20% clayey silt clots

Silty SAND (SM); brown; dense; damp; 10% clay; 25% silt; 65% fine sand; low to moderate K

dry; 10% clay; 15% silt; 75% fine to medium sand; moderate K

Gravelly SAND (SW); red; dense; damp; 10% silt; 75% medium to coarse sand; 15% subangular and subrounded gravel to 1/8" diameter; moderate to high K

Sandy SILT (ML); brown, mottled light gray; very stiff; damp; 10% clay; 60% silt; 30% fine to medium sand; low plasticity; low to moderate K

Gravelly (Silty) SAND (SW); brown; very dense; damp; 5% clay; 15% silt; 60% fine to medium sand; 20% sub-angular gravel to 1/2" diameter; low to moderate to high K

EXPLANATION

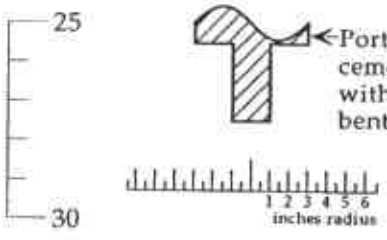
- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity
- NA = Not analyzed

Logged By: Jonathan Weingast
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Gregg Drilling, Pacheco, CA
License Number: C57-485165
Driller: Mike Braman
Drilling Method: Hollow-stem auger 6"
Date Drilled: June 6, 1994
Well Head Completion: N/A
Type of Sampler: Split spoon (2" ID)
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

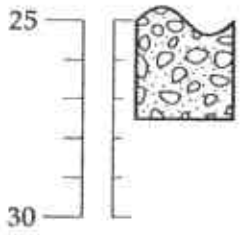
Boring Log Construction Details - BH-1 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

SOIL BORING BH-1 (cont.)

DEPTH BELOW GROUND SURFACE (FEET)



GRAPHIC LOG

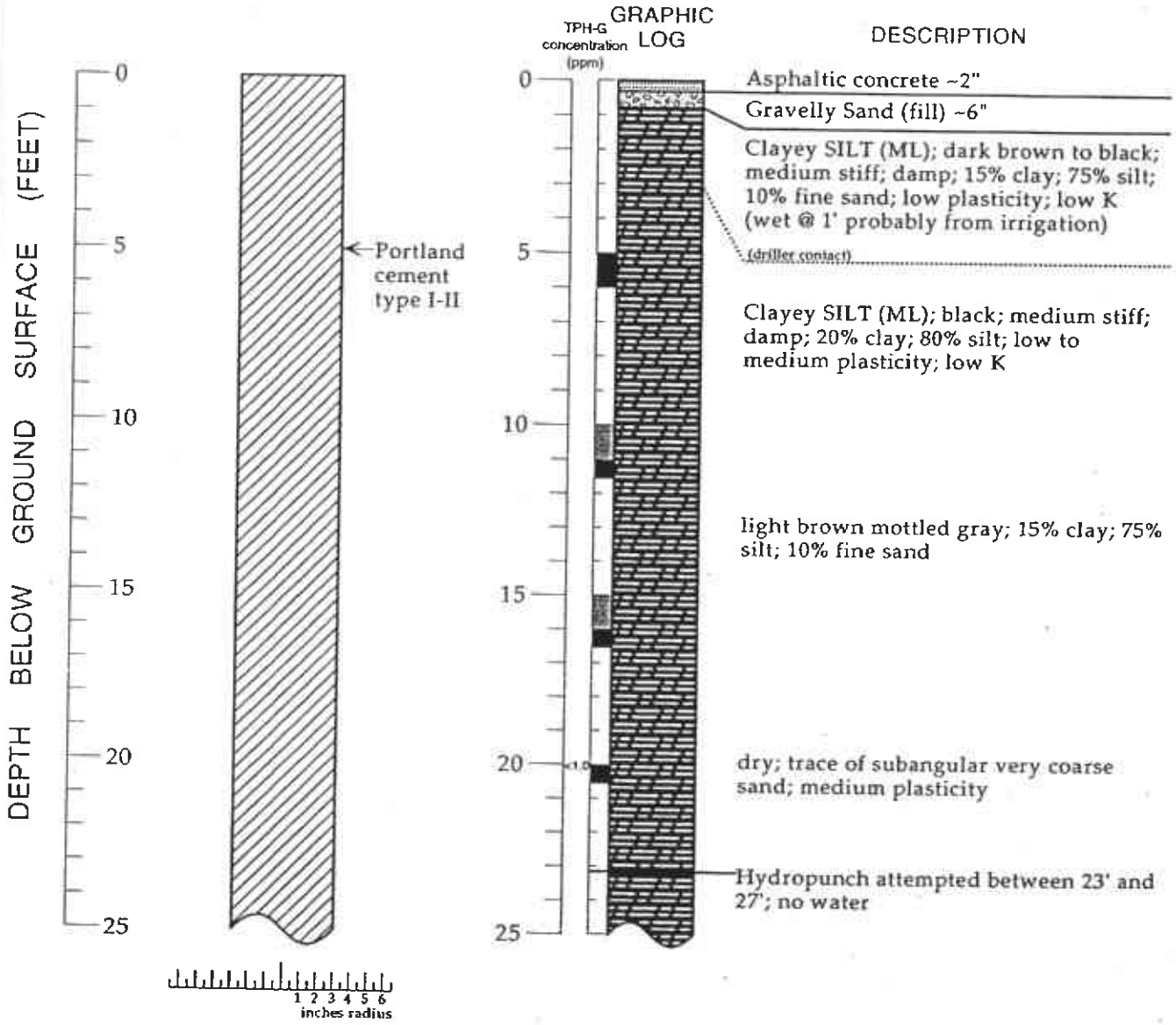


DESCRIPTION

Hydropunch to 27.3'

Boring Log Construction Details - BH-1 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

SOIL BORING BH-2



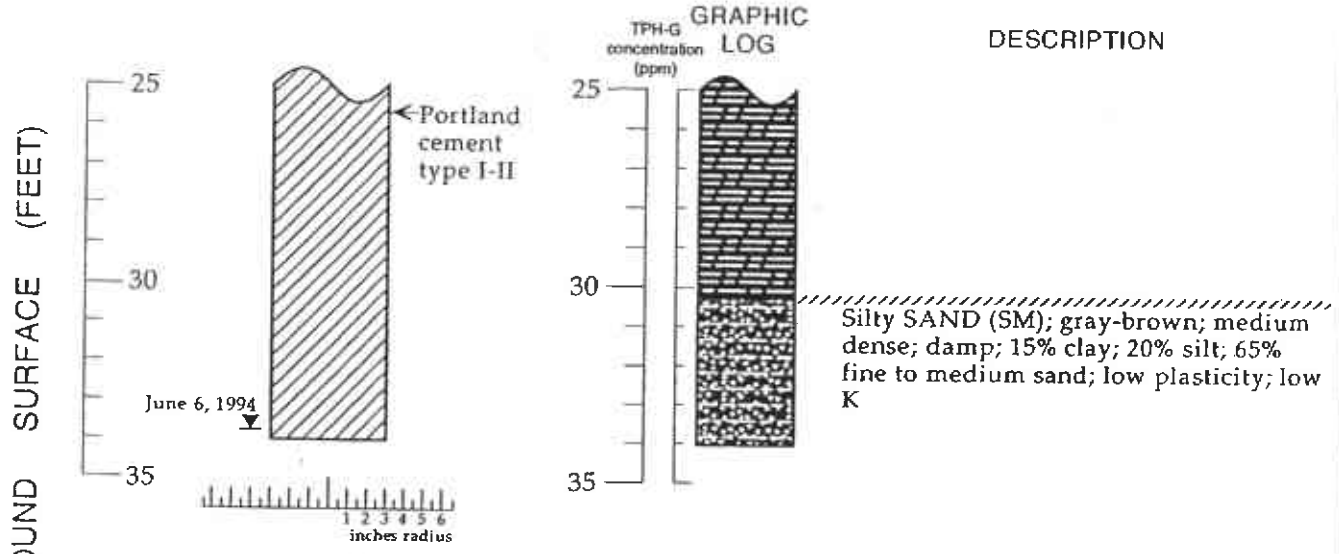
EXPLANATION

- ▼ Water level during drilling (date)
- ⧖ Water level (date)
- ..... Contact (dotted where approximate)
- —?—?— Uncertain contact
- ////////. Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Jonathan Weingast
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Gregg Drilling, Pacheco, CA
License Number: C57-485165
Driller: Mike Braman, Rich Nessinger
Drilling Method: Hollow-stem auger 6"
Date Drilled: June 6, 1994
Well Head Completion: N/A
Type of Sampler: Split spoon (2" ID)
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

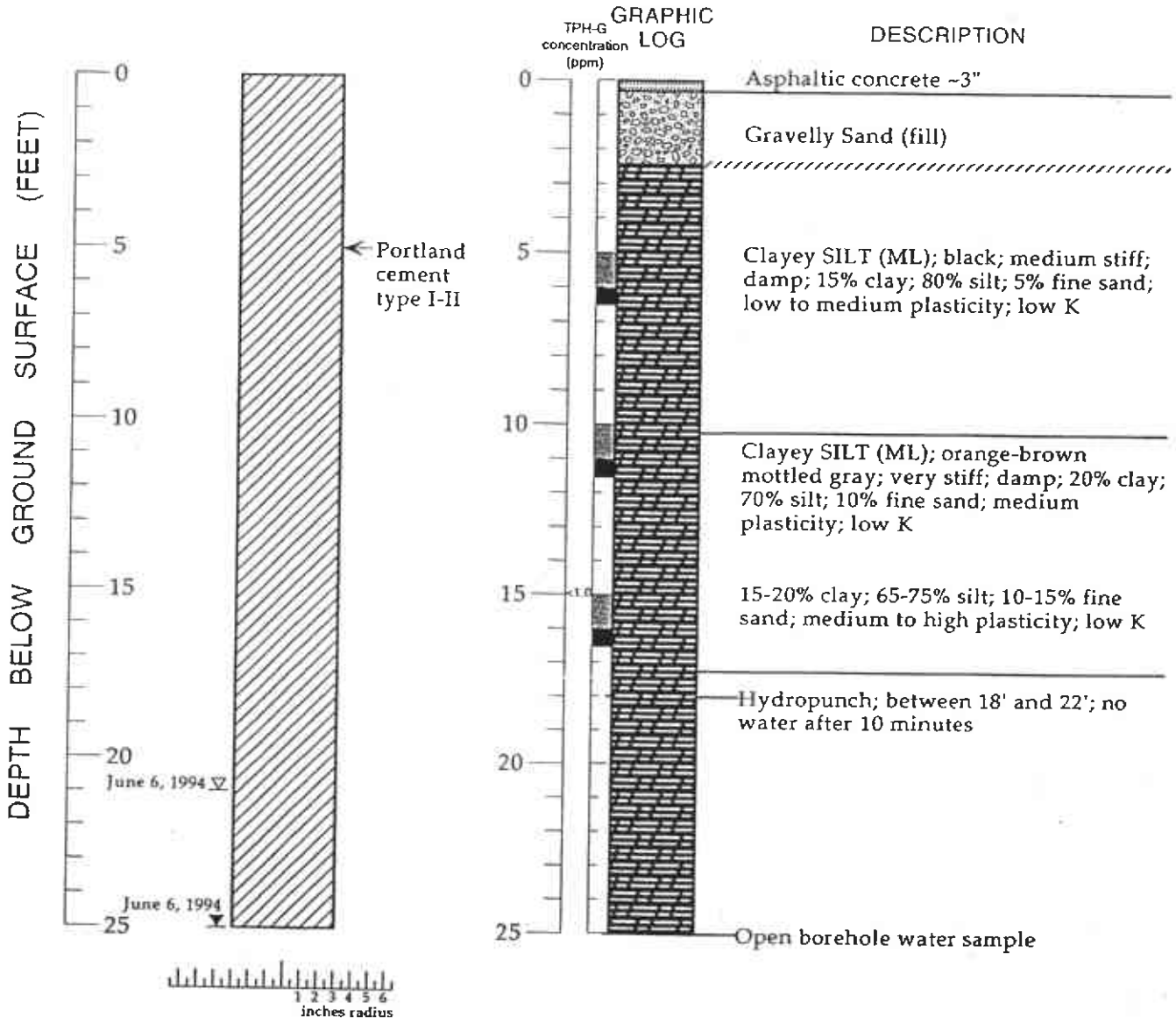
Boring Log Construction Details - BH-2 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

SOIL BORING BH-2 (cont.)



Boring Log Construction Details - BH-2 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

SOIL BORING BH-3



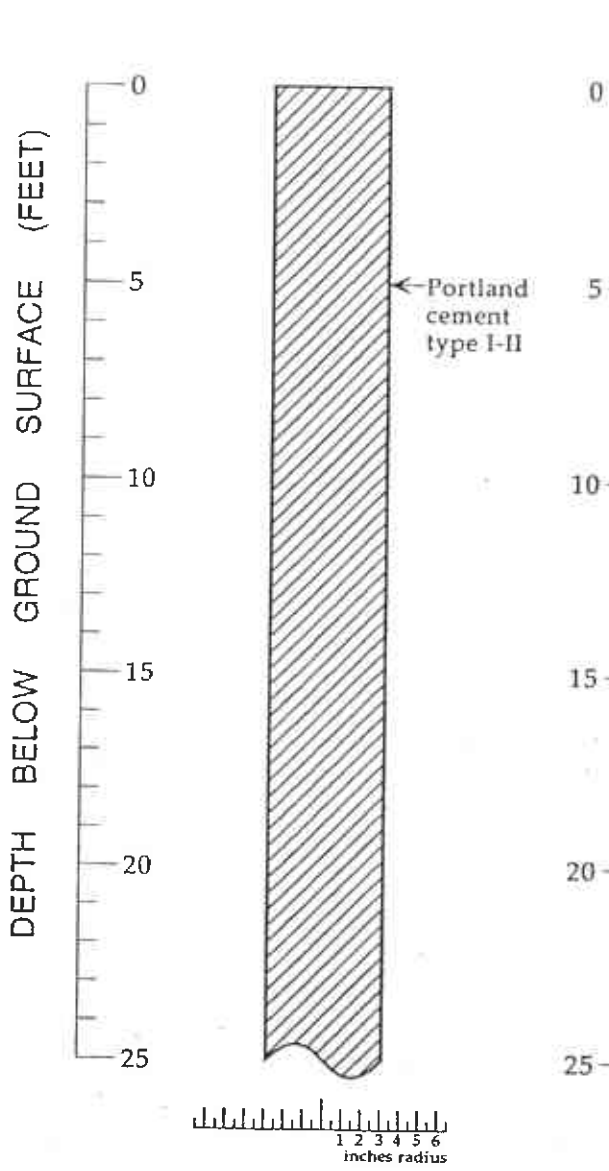
EXPLANATION

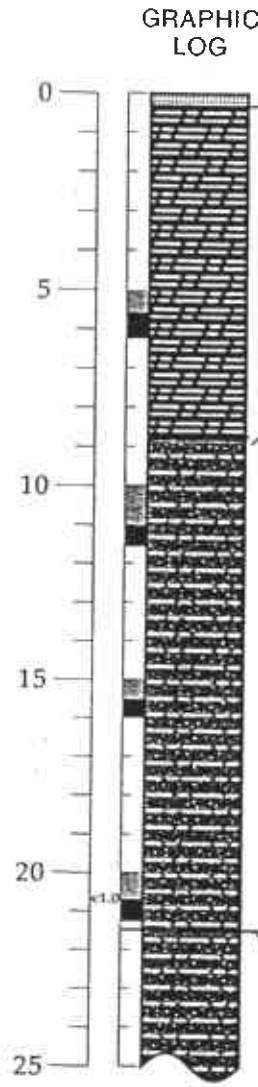
- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Jonathan Weingast
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Gregg Drilling, Pacheco, CA
License Number: C57-485165
Driller: Mike Braman, Rich Nessinger
Drilling Method: Hollow-stem auger 6"
Date Drilled: June 6, 1994
Well Head Completion: N/A
Type of Sampler: Split spoon (2" ID)
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log Construction Details - BH-3 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

SOIL BORING BH-4





DESCRIPTION

Asphaltic concrete

Clayey SILT(MH); dark gray to black; soft; damp to moist; 20% clay; 80% silt; high plasticity; low K

dark brown; medium plasticity

Sandy SILT(ML); yellow-brown mottled black; very stiff; damp; 10% clay; 70% silt; 20% fine to medium sand; low plasticity; low K; trace very coarse subangular sand

gray-brown; 10% clay; 60% silt; 25% fine to medium sand; 5% very coarse sand; low plasticity; low K

mottled light gray with calcite veins; 10% clay; 55% silt; 35% fine to medium sand; low plasticity; low K

Hydropunch between 21.5' and 25', no water

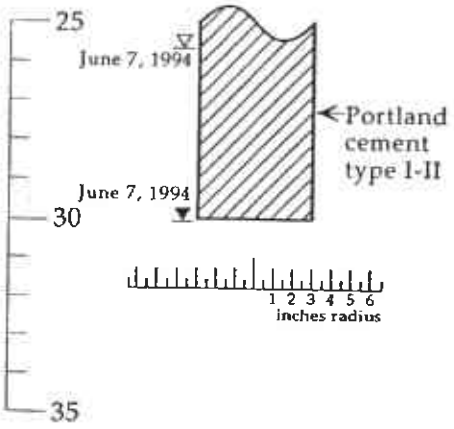
EXPLANATION

- ▼ Water level during drilling (date)
- ▽ Water level (date)
- ——— Contact (dotted where approximate)
- —?—?— Uncertain contact
- ////// Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Jonathan Weingast
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Gregg Drilling, Pacheco, CA
License Number: C57-485165
Driller: Mike Braman, Rich Nessinger
Drilling Method: Hollow-stem auger
Date Drilled: June 7, 1994
Well Head Completion: N/A
Type of Sampler: Split spoon (2" ID)
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

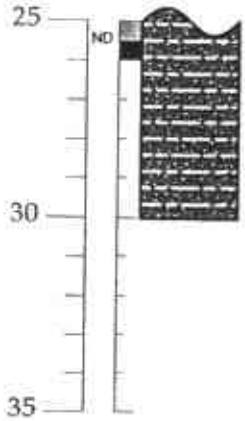
Boring Log Construction Details - BH-4 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

SOIL BORING BH-4 (cont.)



DEPTH BELOW GROUND SURFACE (FEET)

GRAPHIC LOG



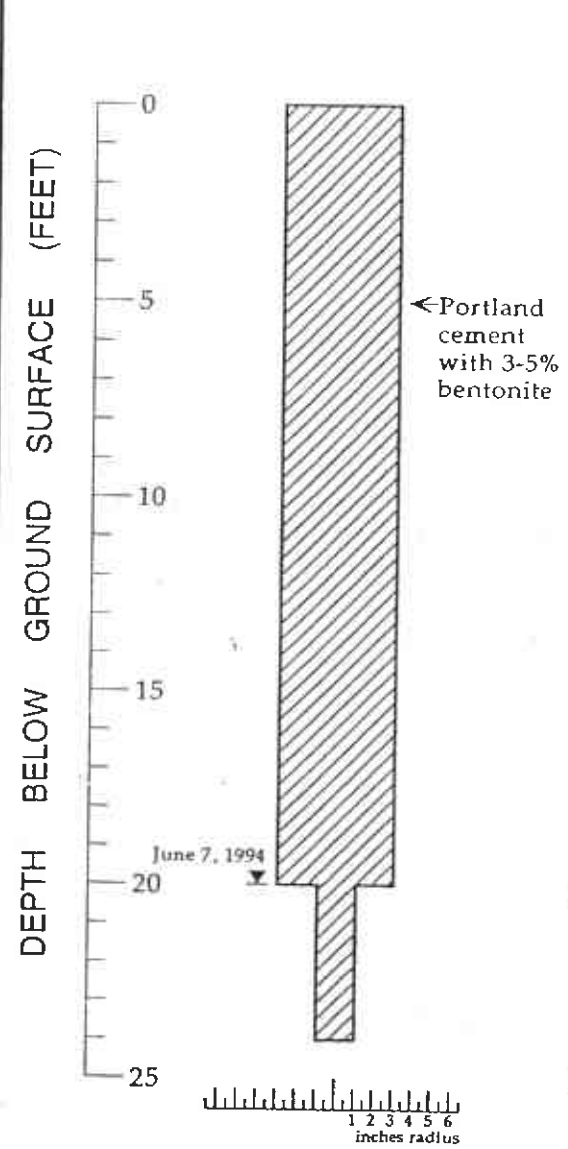
DESCRIPTION

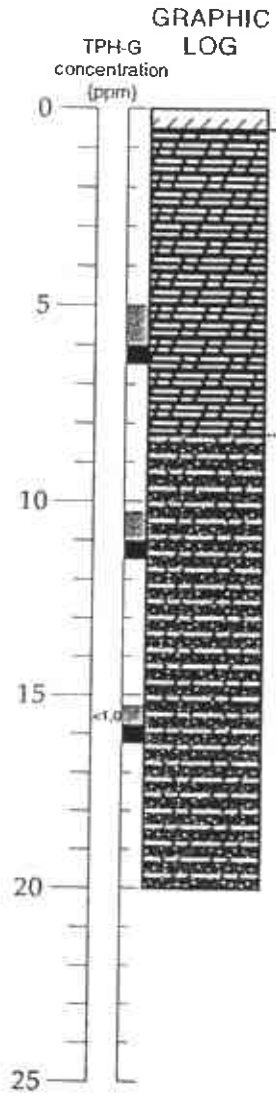
mottled light gray (calcified)

wet

Boring Log Construction Details - BH-4 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

SOIL BORING BH-5





DESCRIPTION

Asphaltic concrete - 3"

Clayey SILT (MH); black; medium stiff; damp; 20% clay; 75% silt; 5% fine sand; medium to high plasticity; low K

25% clay; 70% silt; 5% sand; med plasticity

Sandy SILT (ML); yellow-brown, mottled black; medium stiff; damp; 15% clay; 60% silt; 25% fine to medium sand; low plasticity; low K

10% clay; 55% silt; 35% fine to medium sand; trace subangular gravel to 1/8" diameter; low K

Hydropunch between 20' and 24'

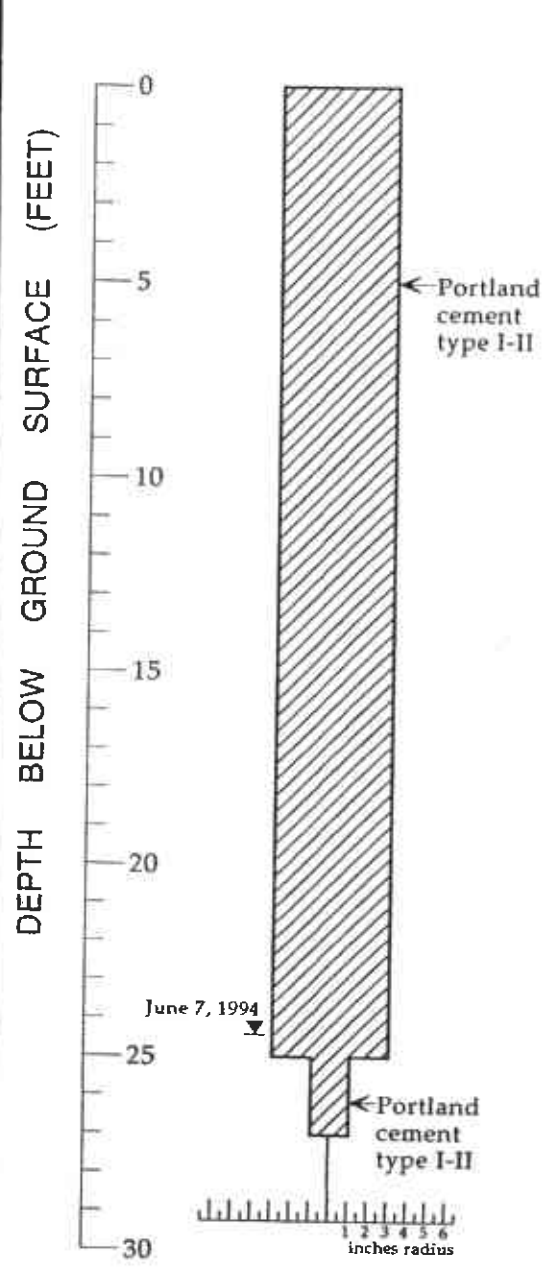
EXPLANATION

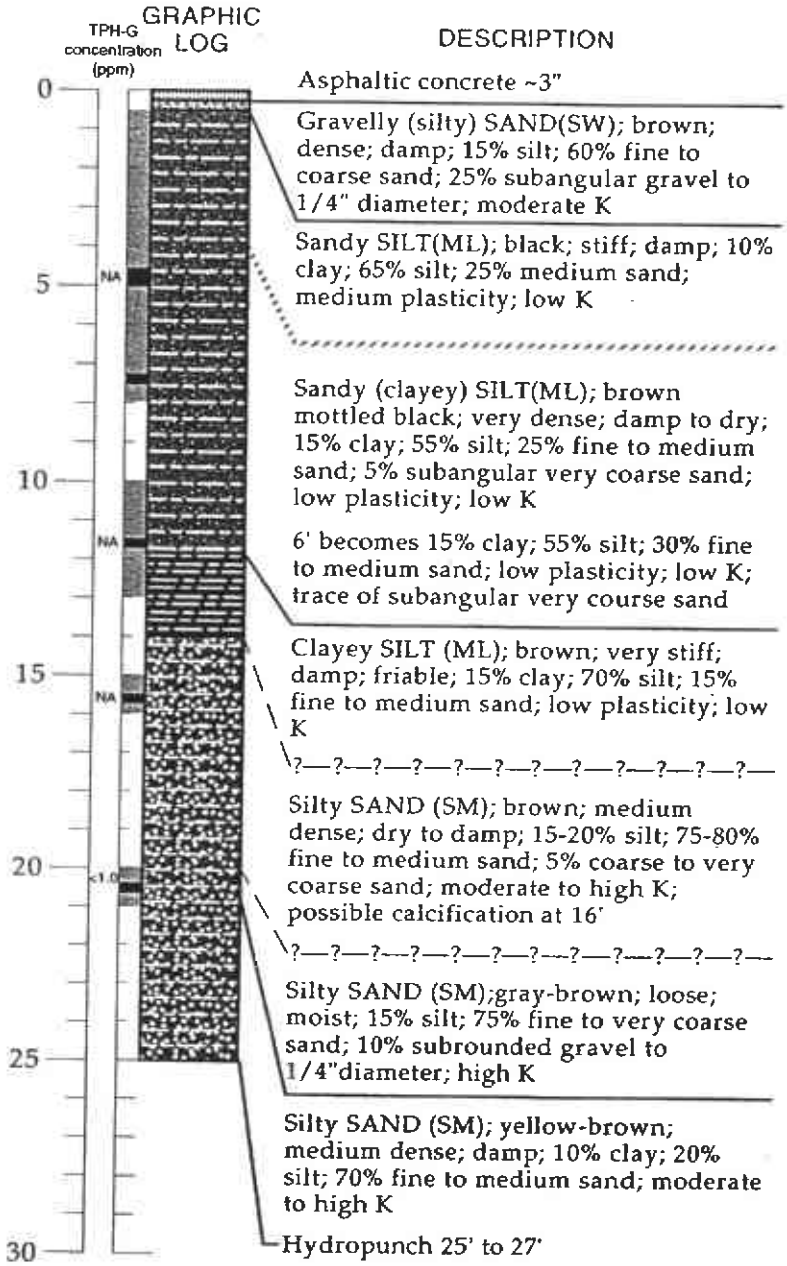
- ▼ Water level during drilling (date)
- ▽ Water level (date)
- ———— Contact (dotted where approximate)
- —?—?— Uncertain contact
- ////////. Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Jonathan Weingast
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Gregg Drilling, Pacheco, CA
License Number: C57-485165
Driller: Mike Braman
Drilling Method: Hollow-stem auger 6"
Date Drilled: June 7, 1994
Well Head Completion: N/A
Type of Sampler: Split spoon (2" ID)
TPH-G: Total Petroleum Hydrocarbons as gasoline in soil by modified EPA Method 8015

Boring Log Construction Details - BH-5 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

SOIL BORING BH-6





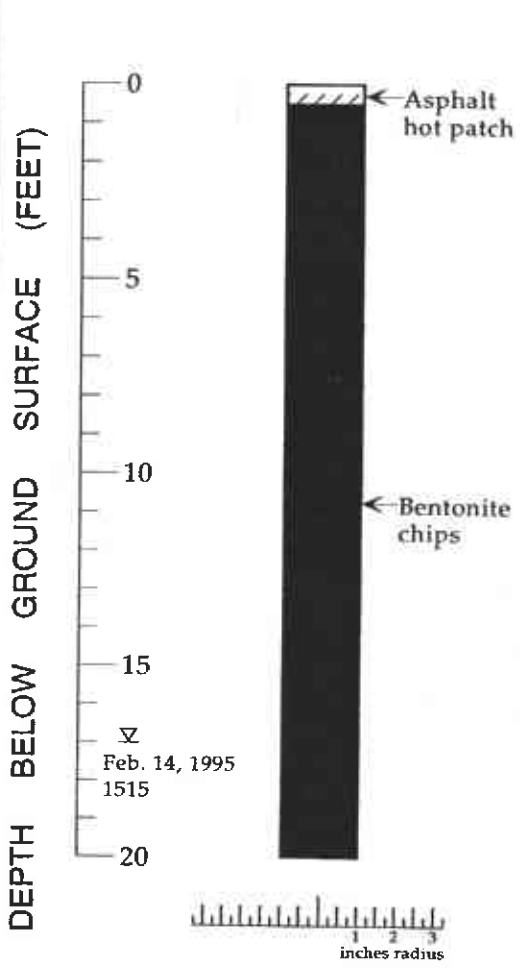
EXPLANATION

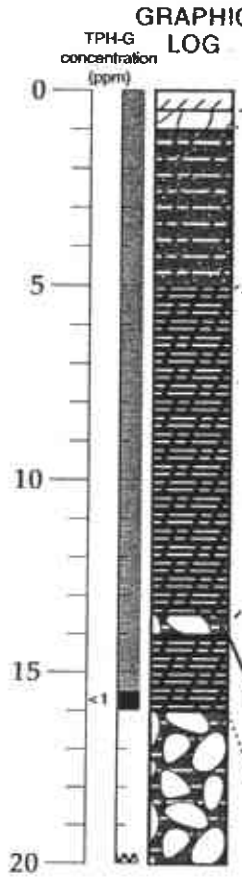
- ▼ Water level during drilling (date)
- ▽ Water level (date)
- ——— Contact (dotted where approximate)
- —?—?— Uncertain contact
- ////////// Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity
- NA = Not analyzed

Logged By: Jonathan Weingast
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Gregg Drilling, Pacheco, CA
License Number: C57-485165
Driller: Mike Braman, Rich Nessinger
Drilling Method: Hollow-stem auger 6"
Date Drilled: June 7, 1994
Well Head Completion: N/A
Type of Sampler: Continuous core
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log Construction Details - BH-6 - Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

BH-7





DESCRIPTION

Asphaltic concrete

Gravel base

Sandy, Clayey SILT (ML); dark gray; medium stiff; damp; 80% fines, 20% very fine to medium sand; low plasticity; low K

Clayey SILT (ML); dark gray; medium stiff; damp; 90% fines, 10% fine sand; low plasticity; low K

lt. brown at 10 feet with black MNO(?) specks and white caliche

Silty Sandy GRAVEL (GM); yellow-brown; medium dense; damp; 20% fines, 30% fine to coarse sand, 50% sub-angular to sub-rounded gravel to .5 inch dia.; moderate K

Clayey SILT (ML); lt. brown; medium stiff; damp to dry; 90% fines, 10% fine sand, low plasticity; low K

Silty GRAVEL (GM); lt. green-brown; medium dense to very dense; damp to wet; moderate K

Attempt Hydropunch 17.0 to 20.0 ft. collect water sample

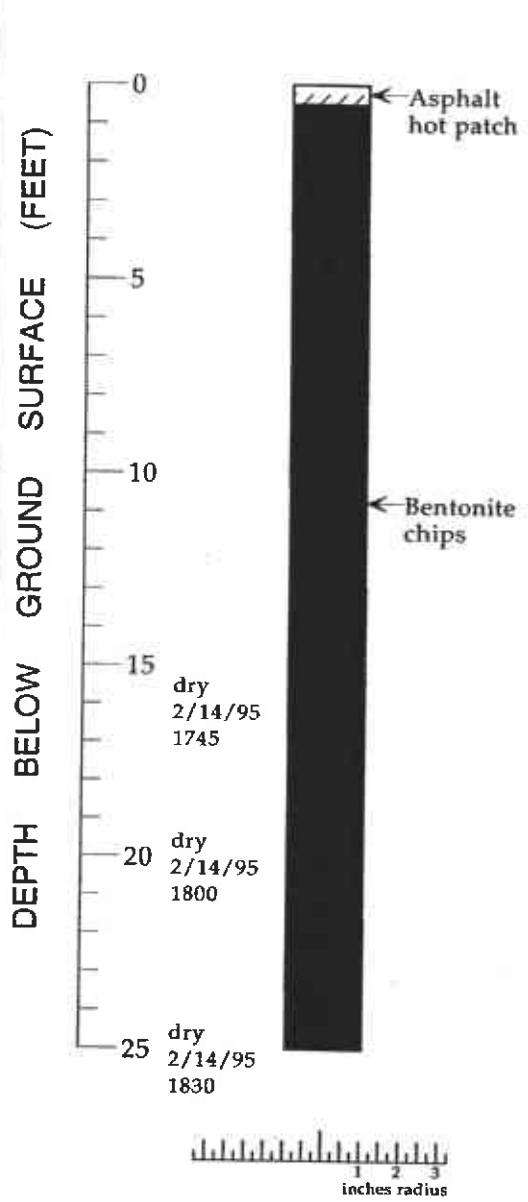
EXPLANATION

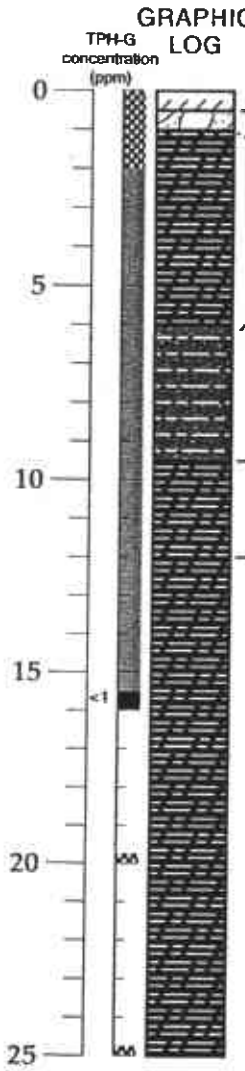
- ▼ Water level during drilling (date)
- ▽ Water level (date)
- ——····—— Contact (dotted where approximate)
- —?—?— Uncertain contact
- ////////// Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Thomas Howard
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Vironix, Foster City, CA
License Number: C57-606481
Driller: Tom VanHuizen
Drilling Method: GeoProbe
Date Drilled: February 14, 1995
Well Head Completion: N/A
Type of Sampler: Californnia continous soil and ground water sampler
Ground Surface Elevation: ~40 feet above mean sea level
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log and Well Construction Details - BH-7 - Shell Service Station WIC #204-6852-1404, 150th Avenue, San Leandro, California

BH-8





DESCRIPTION

Asphaltic concrete

Gravel base

Clayey SILT (ML); gray; soft; moist; 75% fines, 25% gravel to 0.75 inch diameter; low plasticity; low K

Sandy SILT (ML); brown; soft; damp; 90% fines, 10% gravel to 0.5 inch diameter; low K

Light brown at 9 feet with white caliche

Clayey SILT (ML); brown with black MNO specks; soft; damp; low plasticity; low K

Clayey SILT (ML); olive-brown; medium stiff; damp; low plasticity; low K

Attempted hydropunch 16 to 20 feet

Attempted hydropunch 20 to 25 feet

No water

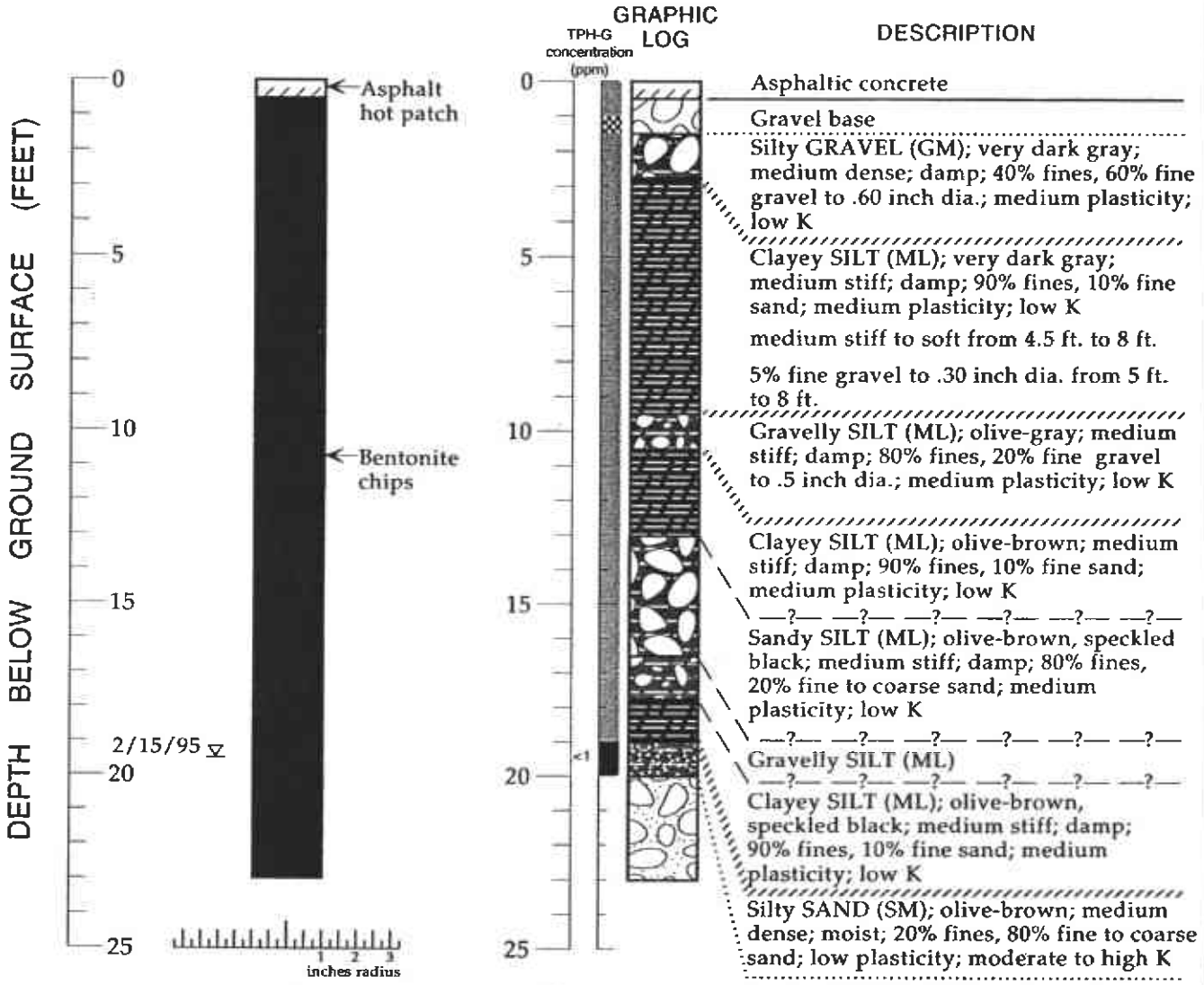
EXPLANATION

- ▼ Water level during drilling (date)
- ▽ Water level (date)
- ——····—— Contact (dotted where approximate)
- —?—?— Uncertain contact
- //////// Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Faith M. Daverin
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Vironix, Foster City, CA
License Number: C57-606481
Driller: Tom VanHuizen
Drilling Method: GeoProbe
Date Drilled: February 14, 1995
Well Head Completion: N/A
Type of Sampler: California continous soil and ground water sampler
Ground Surface Elevation: ~40 feet above mean sea level
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log and Well Construction Details - BH-8 - Shell Service Station WIC #204-6852-1404, 150th Avenue, San Leandro, California

BH-9



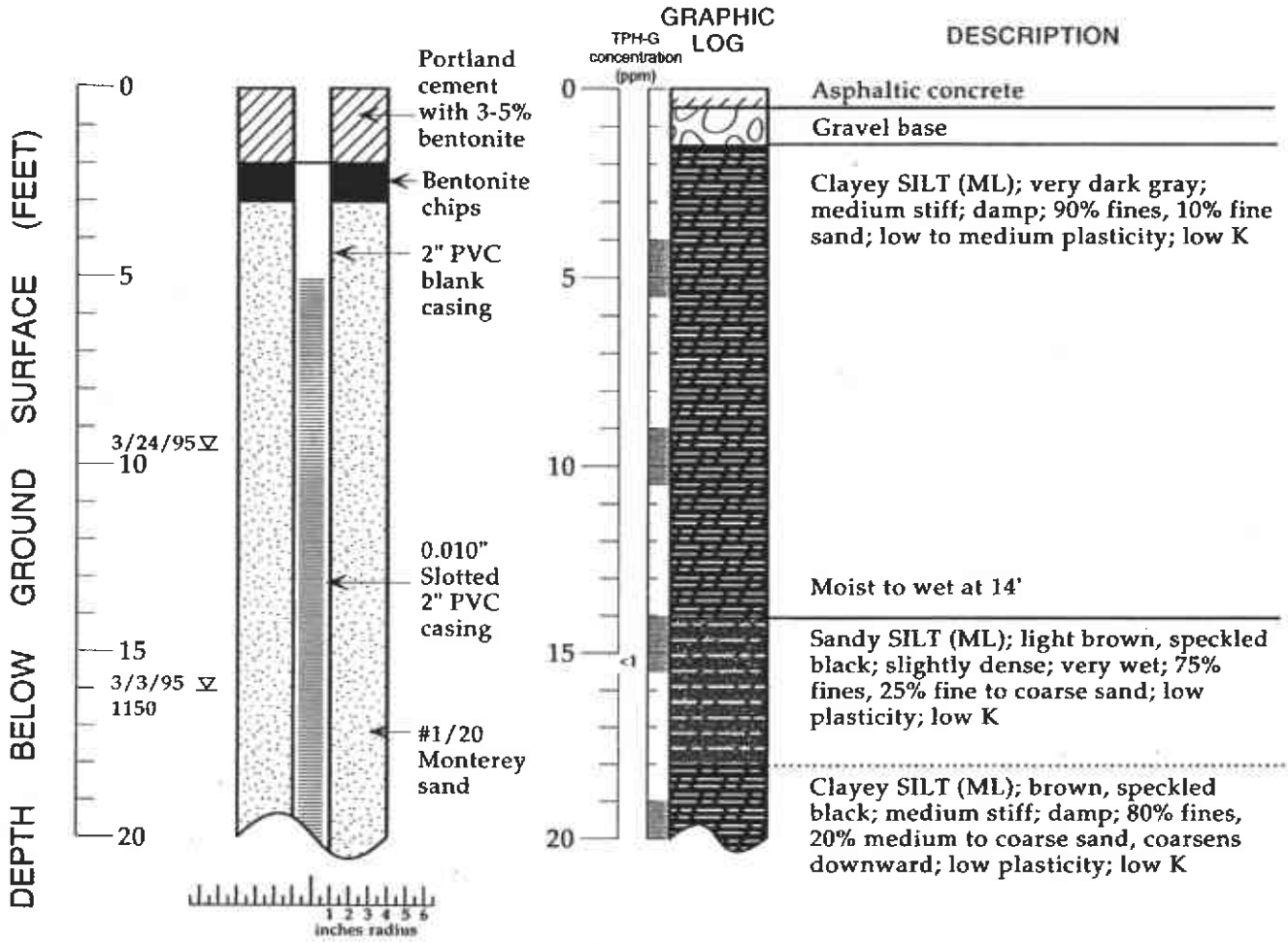
EXPLANATION

- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Thomas Howard
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Vironix, Foster City, CA
License Number: C57-606481
Driller: Tom VanHuizen
Drilling Method: GeoProbe
Date Drilled: February 15, 1995
Well Head Completion: N/A
Type of Sampler: California continous soil and water sampler
Ground Surface Elevation: ~40 feet above mean sea level
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log and Well Construction Details - BH-9 - Shell Service Station WIC #204-6852-1404, 150th Avenue, San Leandro, California

WELL MW-4 (BH-10)



EXPLANATION

- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Faith Daverin
Supervisor: James W. Carmody; CEG 1576
Drilling Company: Gregg Drilling, Martinez, CA
License Number: C57-485165
Driller: Marvin Hoover
Drilling Method: Hollow stem auger
Date Drilled: March 3, 1995
Well Head Completion: 2" locking well-plug, traffic-rated vault
Type of Sampler: Split barrel (2" ID)
Ground Surface Elevation: 40.08 feet above mean sea level
TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

Boring Log and Well Construction Details - MW-4 (BH-10) - Shell Service Station WIC #204-6852-1404, 150th Avenue, San Leandro, California

1144 - 65th St.
Oakland, CA 94608
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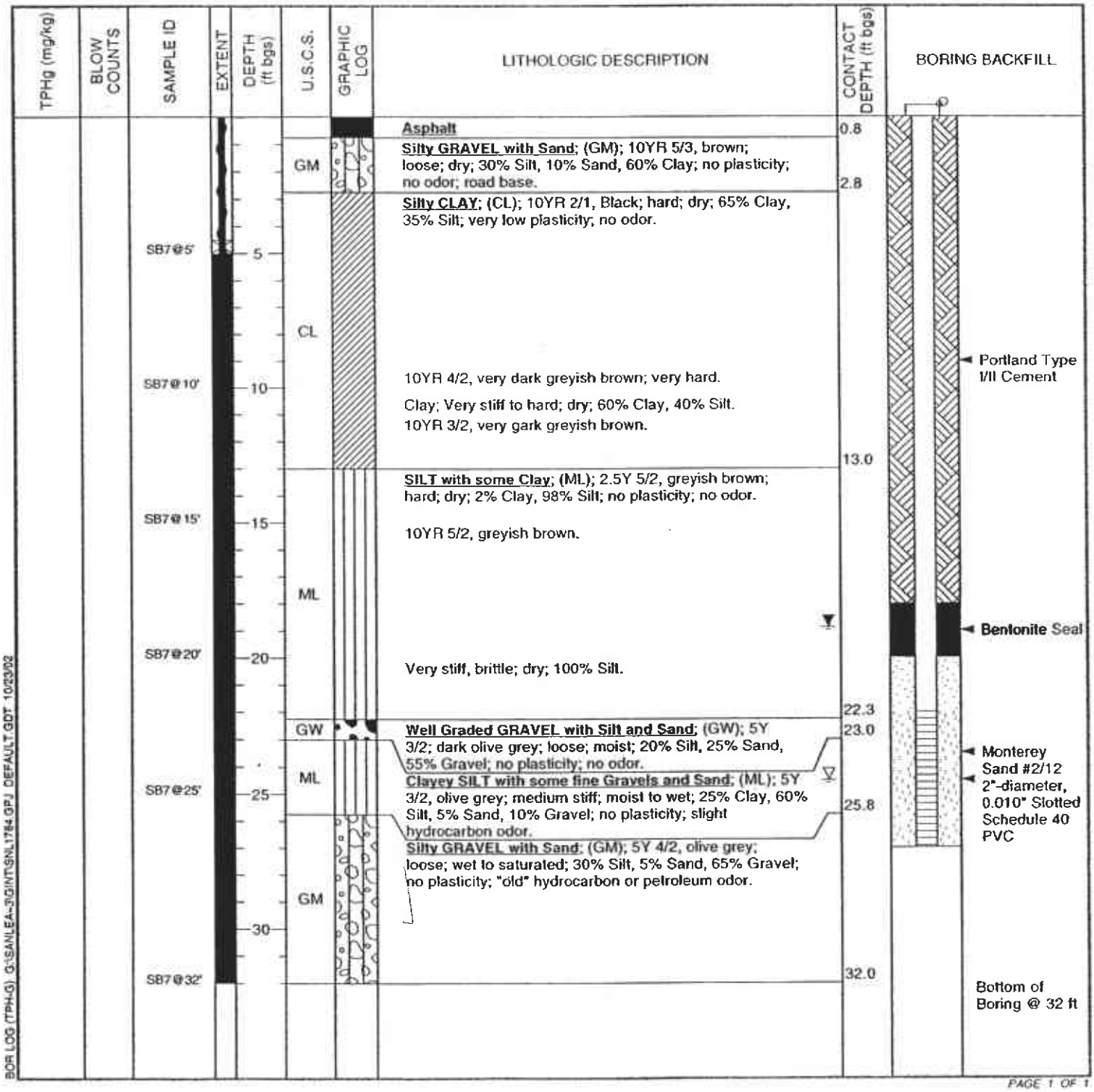
Fax: (510) 420-9170

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-7
JOB/SITE NAME	1784 150th Avenue, San Leandro, California	**DRILLING STARTED**	03-Oct-02
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	03-Oct-02
PROJECT NUMBER	244-0612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	44.86 ft above msl
DRILLING METHOD	Hollow Stem Auger	**TOP OF CASING ELEVATION**	44.45 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	22 to 27 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	24.5 ft (03-Oct-02)
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	18.88 ft (04-Oct-02)
REMARKS	Hand augered to 5' bgs.		



BOR LOG (TPH-G) G:\SANLEA~3\GINT\SNL1784.GPJ DEFAULT.GDT 10/23/02

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BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-6
JOB/SITE NAME	1784 150th Avenue, San Leandro, California	**DRILLING STARTED**	24-Oct-01
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	24-Oct-01
PROJECT NUMBER	243-0612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	8"	**SCREENED INTERVAL**	5 to 20 ft bgs
LOGGED BY	S. Landsittel	**DEPTH TO WATER (First Encountered)**	8.0 ft (24-Oct-01) ▽
REVIEWED BY	S. Bork, RG# 5620	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Hand augered to 5' bgs. Located in north side of private driveway approximately 70' SW of site and 120' SE of 150th Ave.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							ASPHALT	0.4	Portland Type I/II Cement
							FILL; reddish brown; 5% clay, 5% silt, 55% sand, 35% subangular gravel; no plasticity; damp.		
								3.0	Bentonite Seal
							Silty CLAY (CL); black; 75% clay, 20% silt, 5% sand; stiff; high plasticity; moist.		
				5			@ 4 ft bgs - wet.		Monterey Sand #2/12
		MW-6-5.5			CL		▽		
				10			**Silty Sandy GRAVEL** (GM); brown; 5% clay, 25% silt, 20% fine sand, 50% subangular gravel; no plasticity; wet.	10.0	
					GM			13.0	2"-diameter, 0.010" Slotted Schedule 40 PVC
				15			**Clayey SILT** (ML); light brown; 25% clay, 60% silt, 10% sand, 5% gravel; stiff; low to medium plasticity; damp.		
					ML				
							@ 18.5 ft bgs - 25% clay, 65% silt, 8% sand, 2% gravel.		
				20				20.0	Bottom of Boring @ 20 ft

WELL LOG (PID) G:\SANLEA-3\GINT\SNL1784.GPJ DEFAULT.GDT 12/5/01

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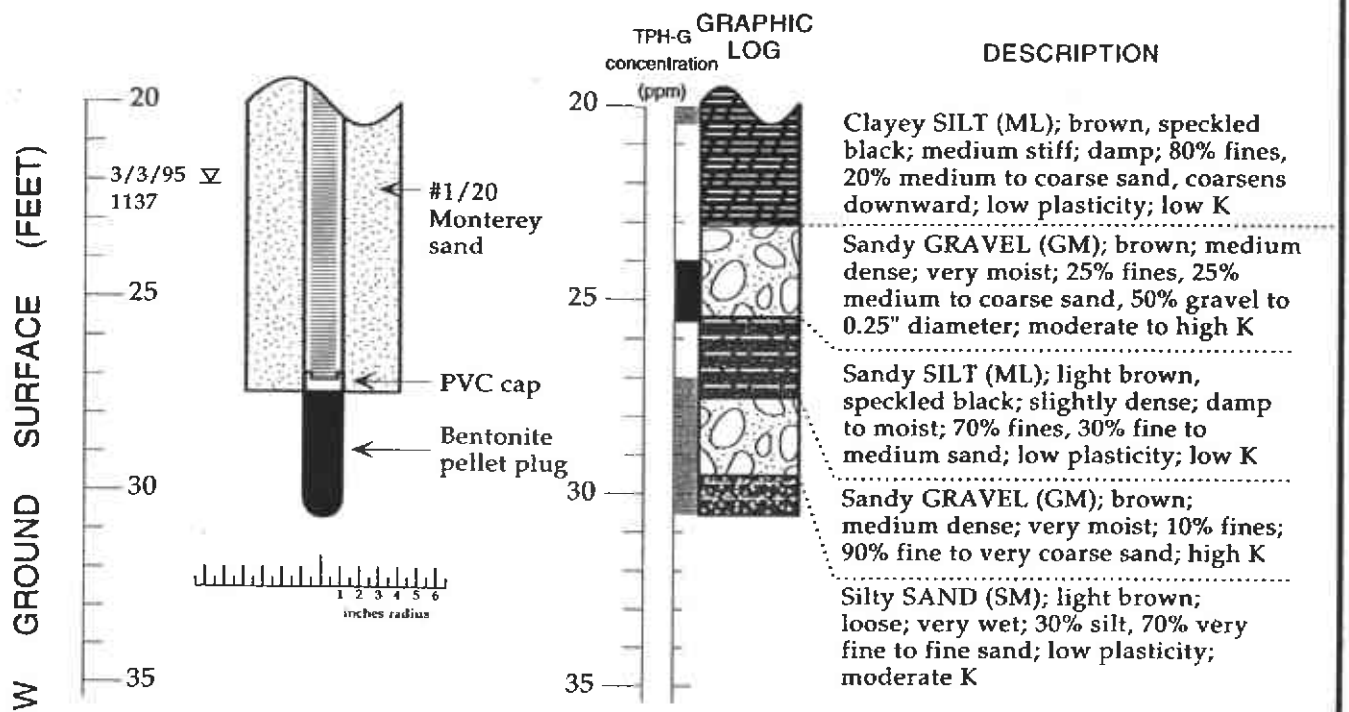
BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-5
JOB/SITE NAME	1784 150th Avenue, San Leandro, California	**DRILLING STARTED**	24-Oct-01
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	24-Oct-01
PROJECT NUMBER	243-0612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	8"	**SCREENED INTERVAL**	10 to 25 ft bgs
LOGGED BY	S. Landsittel	**DEPTH TO WATER (First Encountered)**	20.0 ft (24-Oct-01) ▽
REVIEWED BY	S. Bork, RG# 5620	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Hand augered to 5' bgs. Located at corner of private driveway and 150th Ave. 100' SW of site.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							ASPHALT	0.5	
							FILL; yellowish brown; mottled; 10% clay, 10% silt, 60% sand, 20% gravel; no plasticity; dry.		
								3.0	Portland Type I/II Cement
				5	CL		**Silty CLAY** (CL); black; 80% clay, 20% silt, rare gravel; stiff; high plasticity; damp.		
							@ 5 ft bgs - 85% clay, 15% silt.		
								6.5	Bentonite Seal
					GM		**Silty Sandy GRAVEL** (GM); brown; 10% clay, 25% silt, 25% sand, 40% gravel; no plasticity; damp.		
								9.5	Monterey Sand #2/12
				10			**Clayey Sandy SILT** (ML); grayish brown; 15% clay, 60% silt, 20% sand, 5% gravel; low plasticity; damp.		
					ML				
				15					
								16.0	
					SM		**Silty SAND with Gravel** (SM); light brown; 10% clay, 20% silt, 50% sand, 20% gravel; low plasticity; damp.		2"-diameter, 0.010" Slotted Schedule 40 PVC
								19.0	
				20			**Clayey Sandy SILT** (ML); brown; 15% clay, 58% silt, 25% sand, 2% gravel; medium plasticity; damp. ▽		
					ML				
				25			@ 24.5 ft bgs - 20% clay, 58% silt, 20% sand, 2% gravel.	25.0	Bottom of Boring @ 25 ft

WELL LOG (PID) G:\SANLEA-3\GINT\SNL1784.GPJ DEFAULT.GDT 12/5/01

WELL MW-4 (BH-10)(cont.)



Boring Log and Well Construction Details - MW-4 (BH-10) - Shell Service Station WIC #204-6852-1404, 150th Avenue, San Leandro, California

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-9
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	19-Nov-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	19-Nov-03
PROJECT NUMBER	245-0612-010	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	41.84
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	41.65 ft
BORING DIAMETER	8"	**SCREENED INTERVAL**	30 to 35 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	20.0 ft (19-Nov-03)
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	14.8 ft (20-Nov-03)
REMARKS	Hand augered to 5 fbg, located in Portofino Circle.		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)
								Asphalt.	0.6
						CL		**CLAY**; (CL); Black; very stiff; dry; 85% clay, 15% silt; low plasticity. CLAY with some small sub angular gravel.	
0.1			MW-9 5'		5				
0			MW-9 10'		10			Brownish gray; very stiff to hard; dry; 90% clay, 5% silt; no plasticity.	
0.1			MW-9 15'		15	OL		**Silty CLAY**; (OL); Brownish gray; very stiff to hard; dry; 70% clay, 30% silt.	15.0
						SC		**Clayey SAND**; (SC); Brownish gray; medium dense; damp; 45% clay, 55% sand; low plasticity.	17.5
3			MW-9 20'		20	GC		**Clayey GRAVEL**; (GC); Brownish gray; medium dense; moist to wet; 25% clay, 5% sand, 70% Gravel.	20.0
						CL		**CLAY**; (CL); Light brown; very stiff to hard; damp; 95% clay, 5% small gravel.	22.5
1.8			MW-9 25'		25				
0			MW-9 30'		30	GC		**Clayey GRAVEL**; (GC); Light brown; very dense; saturated; 45% clay, 55% gravel.	27.5
						GW		**Well Graded GRAVEL**; (GW); Light brown; loose; saturated; 25% coarse sand, 75% gravel.	32.5
0.1			MW-9 34.5'		35				35.0

WELL DIAGRAM

- Portland Type I/II
- Bentonite Seal
- Lonestar Sand #2/12
- 2"-diam., 0.010" Slotted Schedule 40 PVC
- Bottom of Boring @ 35 ft

WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 1/9/04

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BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-8
JOB/SITE NAME	1784 150th Avenue, San Leandro, California	**DRILLING STARTED**	04-Oct-02
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	04-Oct-02
PROJECT NUMBER	244-0612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	43.60 ft above msl
DRILLING METHOD	Direct Push/Hollow Stem Auger	**TOP OF CASING ELEVATION**	43.27 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	19 to 24 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	21.0 ft (04-Oct-02)
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	17.76 ft (04-Oct-02)
REMARKS	Hand augered to 5' bgs.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
							Asphalt	0.8	
					GW		**Well graded GRAVEL with Sand**; (GW); 10YR 4/2, dark greyish brown; loose; dry; 20% Sand, 80% Gravel; no plasticity; no odor; road base.	2.3	
							Silty CLAY; (CL); 10YR 2/1, black; medium hard; dry; 80% Clay; 20% Silt; very low plasticity; no odor.		
		MW8@5'		5	CL				Portland Type I/II Cement
		MW8@10'		10			10YR 3/1, very dark grey; very hard; dry; 75% Clay, 25% Silt; low plasticity.		
							Clayey SILT; (ML); GLEY, 5GY 5/1; stiff; hard; 10% Clay, 90% Silt; no plasticity.	11.5	
		MW8@15'		15	ML		Slighlty more Clay; stiff; dry; 20% Clay, 80% Silt; slight staining.		Bentonite Seal
		MW8@20'		20			GLEY, 5GY 5/1, stained; stiff; dry; 25% Clay, 75% Silt; hydrocarbon odor.		
							Silty GRAVEL with Sand and some Clay; (GM); GLEY, 5GY 5/1, stained; soft; moist to wet; 5% Clay, 20% Silt, 15% Sand, 60% Gravel; no plasticity; strong hydrocarbon odor.	20.8	Monterey Sand #2/12
		MW8@25'		25	GM		No Clay; loose; wet to saturated; 15% Silt, 15% Sand, 70% Gravel; no plasticity; strong hydrocarbon odor.		2"-diameter, 0.010" Slotted Schedule 40 PVC
					CL		**Silty CLAY**; (CL); 5Y 3/2, olive grey; very hard; dry; 75% Clay, 25% Silt; low plasticity; slight hydrocarbon odor.	26.0	
								27.5	Bottom of Boring @ 27.5 ft

BOR LOG (TPH-G) G:\SANLEA-3\GINT\SNL1784.GPJ DEFAULT.GDT 10/23/02

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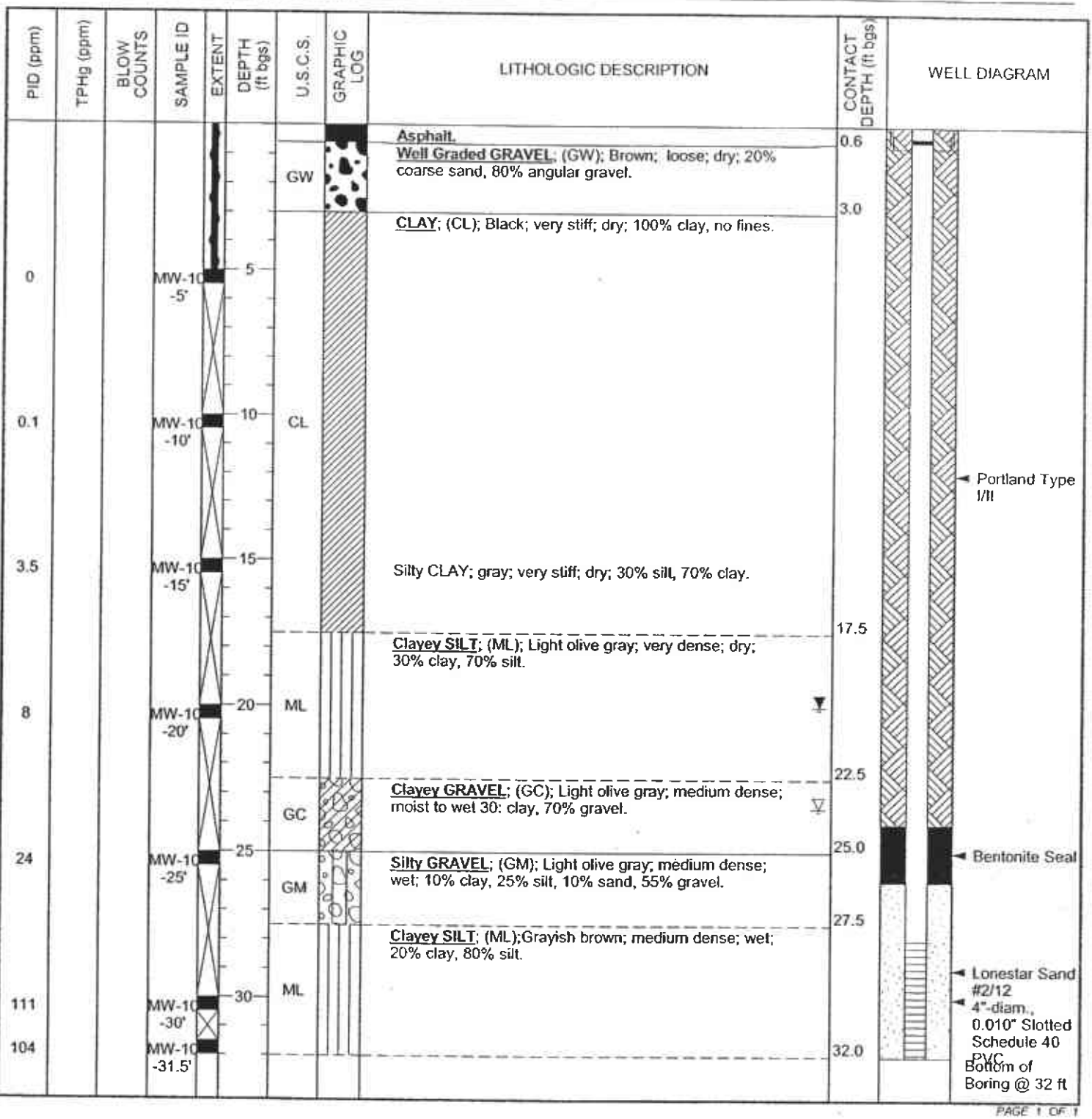
BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-10
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	20-Nov-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	20-Nov-03
PROJECT NUMBER	245-0612-010	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	50.98
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	50.64 ft
BORING DIAMETER	10"	**SCREENED INTERVAL**	28 to 32 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	23.5 ft (20-Nov-03) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	20.0 ft (20-Nov-03) ▼
REMARKS	Hand augered to 5 fbg.		



WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 1/2/04

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-11
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	20-Nov-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	20-Nov-03
PROJECT NUMBER	245-0612-010	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	45.94
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	45.58 ft
BORING DIAMETER	10"	**SCREENED INTERVAL**	15 to 25 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	23.5 ft (20-Nov-03) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Hand augered to 5 fbg.		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)
								Asphalt.	0.8
						GW		**Well Graded GRAVEL with sand**; (GW); Brown; loose; dry; 30% sand, 70% gravel.	3.0
						GC		**Clayey GRAVEL**; (GC); gray to black; stiff; dry; 40% clay, 60% gravel.	4.0
								Silty CLAY; (CL); Black; very stiff to hard; dry; 65% clay, 35% silt.	
2.0			MW-11 -5'		5				
						CL			
2.8			MW-11 -10'		10				
									12.5
								Clayey SILT; (ML); Olive gray; dense; dry; 45% clay, 55% silt.	
18			MW-11 -15'		15				
						ML			
51			MW-11 -20'		20				
									22.5
						GC		**Clayey GRAVEL**; (GC); Olive gray; medium dense; wet; 25% clay, 5% sand, 70% gravel. ▽	
11			MW-11 -25'		25				25.0

WELL DIAGRAM

- Portland Type I/II
- Bentonite Seal
- Lonestar Sand #2/12
- 4"-diam., 0.010" Slotted Schedule 40 PVC
- Bottom of Boring @ 25 ft

WELL LOG (PID/TPHG): G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 1/2/04

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-10
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	23-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	23-Jun-03
PROJECT NUMBER	245-0612-007	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	40.88
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	25.0 ft (23-Jun-03)
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	13.3 ft
REMARKS	Hand augered to 5' bgs.		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					0			**Asphalt**	0.5	
						CL		**Silty CLAY** (CL); black; stiff; dry; 80% clay, 20% silt; low plasticity.		
					5				5.0	
						ML		**Clayey SILT** (ML); black; soft; dry; % clay, % silt; low plasticity.		
1			SB-10 -10		10				10.5	
						CL		**CLAY** (CL); black; stiff; dry; 100% clay; low plasticity. ▼		
0			SB-10 -15.5		15					
					20	CL		**Silty CLAY with Gravel** (CL); light olive brown; very stiff; dry; 65% clay, 10% silt, 5% sand, 15% gravel; low plasticity.	19.0	Portland Type I/II Cement
0			SB-10 -20.5						21.5	
1			SB-10 -22			GP GC		**Clayey GRAVEL** (GP-GC); olive brown; medium dense; damp; 30% clay, 10% sand, 60% gravel; no plasticity.	23.5	
						SC		**Clayey SAND with Gravel** (SC); olive brown; medium dense; damp; 20% clay, 70% sand, 10% gravel; no plasticity. ▽	25.0	
1			SB-10 -25		25	SW		**SAND** (SW); olive brown; medium dense; wet; % clay, % sand, % gravel; no plasticity.	28.0	
								Silty CLAY with Gravel (CL); olive brown; very stiff; dry; 60% clay, 30% silt, 10% gravel; low plasticity.		
1			SB-10 -30		30	CL				
					35					

WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 8/25/03

Continued Next Page

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-10
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	23-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	23-Jun-03

Continued from Previous Page

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
1			SB-10-35						36.0	
0			SB-10-37			GW		<u>GRAVEL</u> (GW); olive brown; loose; wet; 5% sand, 95% gravel; no plasticity.	38.0	
0			SB-10-39.5		40	ML		<u>Sandy SILT with Clay</u> (ML); dark olive brown; soft; moist; 5% clay, 75% silt, 20% sand; medium plasticity.	40.0	Bottom of Boring @ 40 ft

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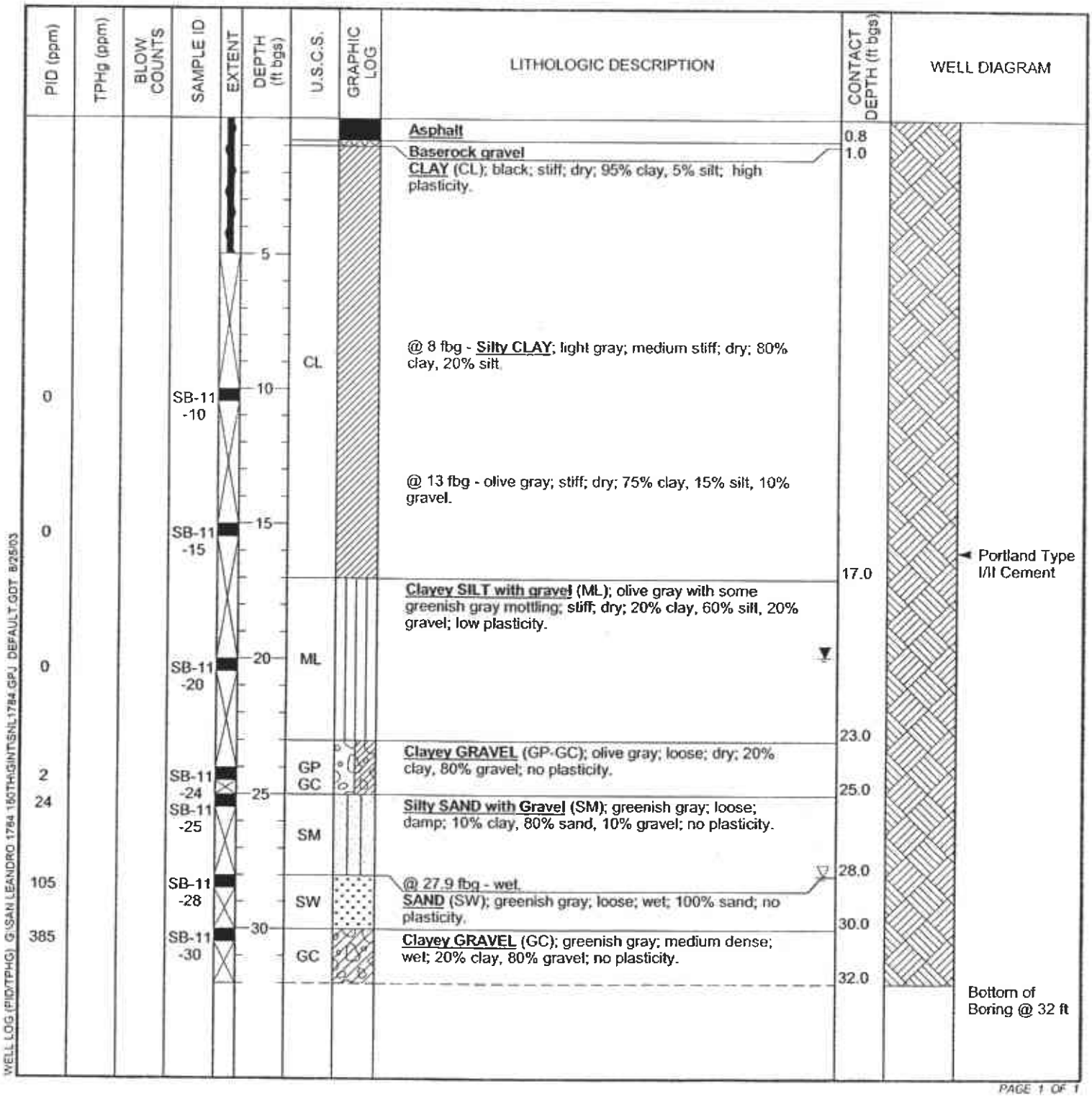
BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-11
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	24-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	24-Jun-03
PROJECT NUMBER	245-0612-007	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	45.38
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	S. Datie	**DEPTH TO WATER (First Encountered)**	28.0 ft (24-Jun-03) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	19.9 ft ▼
REMARKS	Hand augered to 5' bgs.		



WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 8/25/03

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-12
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	24-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	24-Jun-03
PROJECT NUMBER	245-0612-007	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	41.28
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	25.0 ft (24-Jun-03) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	10.8 ft ▼
REMARKS	Hand augered to 5' bgs.		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
								Asphalt		
						ML		Clayey SILT (ML); black; medium stiff; dry; 45% clay, 55% silt; low plasticity.	0.5	
					5					
								CLAY (CL); dark olive brown; very stiff; dry; 95% clay, 5% gravel; high plasticity.	6.5	
1			SB-12 -10		10	CL		@ 11 fbg - light olive gray; 75% clay, 25% silt. ▼		
1			SB-12 -15		15					
						GP GC		Clayey GRAVEL (GP-GC); light olive gray; medium dense; damp; 20% clay, 10% silt, 15% sand, 50% gravel; no plasticity.	16.0	
0			SB-12 -20		20					Portland Type I/II Cement
						ML		Clayey SILT with sand (ML); light olive gray; medium dense; damp; 30% clay, 60% silt, 10% sand; low plasticity.	21.0	
						CL		Silty CLAY with Sand (CL); light olive brown; medium stiff; damp to moist; 60% clay, 30% silt, 10% sand; low plasticity.	23.0	
0			SB-12 -25		25	SC		Clayey SAND (SC); light olive gray; loose; wet; 40% clay, 60% sand, 10% gravel; no plasticity. ▽	25.0	
								GRAVEL with sand (GW); light olive gray; loose; wet; 30% sand, 70% gravel; no plasticity.	27.0	
0			SB-12 -30		30	GW				
					35					

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-12
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	24-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	24-Jun-03

Continued from Previous Page

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
0			SB-12 -35							
									38.0	
						SW		**SAND** (SW); light olive gray; loose; wet; 100% sand; no plasticity.		
0			SB-12 -39.5		40				40.0	Bottom of Boring @ 40 ft

WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 8/25/03

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-13
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	25-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	25-Jun-03
PROJECT NUMBER	245-0612-007	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	41.18
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	24.0 ft (25-Jun-03) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Hand augered to 5' bgs.		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
								Asphalt	0.5	
								Silty CLAY (CL); black; very stiff; dry; 90% clay, 10% silt; high plasticity.		
					5					
						CL		@ 6.5 fbg - 70% clay, 30% silt.		
1			SB-13 -10		10					
									13.5	
1			SB-13 -15		15	ML		**Clayey SILT with gravel** (ML); olive gray; very stiff; dry; 20% clay, 70% silt, 10 % sand; medium plasticity.		
									16.5	
						CL		**Silty CLAY** (CL); light olive gray; very stiff; dry; 80% clay, 20% silt; high plasticity.		
1			SB-13 -20		20					Portland Type I/II Cement
									22.0	
						GP GC		**Clayey GRAVEL** (GP-GC); olive gray; dense; damp; 30% clay, 70% gravel; no plasticity.		
									▽ 24.0	
1			SB-13 -24			SW		**SAND** (SW); olive brown; dense; wet; 20% sand, 80% gravel; no plasticity.	25.0	
1			SB-13 -25		25	SC		**Clayey SAND** (SC); olive gray; dense; wet; 40% clay, 60% sand, medium plasticity.	26.0	
						ML		**Clayey SILT with gravel;** (ML); olive gray; dense; wet; 20% clay, 75% silt, 5% gravel; medium plasticity.		
0			SB-13 -30		30				30.0	
						GP GC		**Clayey GRAVEL with sand** (GP-GC); dark olive gray; loose; wet; 15% clay, 20% sand, 65% gravel; no plasticity. @ 31 fbg - very dense; 25% clay, 20% sand, 55% gravel.		
					35			@ 34 fbg - medium dense; 25% clay, 10% sand, 65%		

WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT GDT 8/25/03

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-14
JOB/SITE NAME	1784 150th Avenue	DRILLING STARTED	24-Jun-03
LOCATION	San Leandro, California	DRILLING COMPLETED	24-Jun-03
PROJECT NUMBER	245-0612-007	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	40.98
DRILLING METHOD	Hydraulic push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVAL	NA
LOGGED BY	S. Dalie	DEPTH TO WATER (First Encountered)	24.0 ft (24-Jun-03) ∇
REVIEWED BY	M. Derby, PE# 55475	DEPTH TO WATER (Static)	7.9 ft ▼
REMARKS	Hand augered to 5' bgs.		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
						Asphalt	0.5	
				5	CL	Silty CLAY (CL); black; medium stiff; dry; 65% clay, 35% silt; high plasticity.		
0			SB-14-10	10				
						▼		
0			SB-14-15	15	ML	Gravelly SILT (ML); light olive brown; stiff; dry; 75% silt, 25% gravel; medium plasticity.	13.0	
						@ 17 fbg - 90% silt, 10% gravel.		
1			SB-14-20	20	GP GC	Clayey GRAVEL with sand (GP-GC); light olive gray; dense; damp; 30% clay, 10% sand, 60% gravel; no plasticity.	20.0	Portland Type I/II Cement
					SC	Clayey SAND (SW); light olive gray; medium dense; wet; 30% clay, 70% sand; no plasticity.	22.0	
0			SB-14-24		GW	∇ GRAVEL (GW); light olive; very dense; wet; 20% sand, 80% gravel; no plasticity.	24.0	
0			SB-14-25	25				
					ML	Gravelly SILT with sand (ML); light olive gray; medium dense; wet; 75% silt, 25% gravel; no plasticity.	26.0	
1			SB-14-30	30	GW	GRAVEL with sand (GW); light olive gray; loose; wet; 25% sand, 75% gravel; no plasticity.	30.0	
				35		Clayey GRAVEL (GC); light olive gray; very stiff; wet;	34.0	

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-13
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	25-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	25-Jun-03

Continued from Previous Page

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
0			SB-13 -35					gravel.		
									37.0	
						CL		**Silty CLAY with gravel** (CL); dark olive gray; very stiff; damp to dry; 80% clay, 15% silt, 5% gravel; high plasticity.		
1			SB-13 -39.5		40				40.0	Bottom of Boring @ 40 ft

WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 8/25/03

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-14
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	24-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	24-Jun-03

Continued from Previous Page

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
1			SB-14 -35			GC		50% clay, 50% gravel; medium plasticity.		
									36.5	
						GW		**GRAVEL with sand** (GW); light olive gray; loose; wet; 20% sand, 80% gravel; no plasticity.		
0			SB-14 -39.5		40				40.0	Bottom of Boring @ 40 ft

WELL LOG (PIDTPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 8/25/03

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US
JOB/SITE NAME	1784 150th Avenue
LOCATION	San Leandro, California
PROJECT NUMBER	245-0612-007
DRILLER	Gregg Drilling
DRILLING METHOD	Hydraulic push
BORING DIAMETER	2"
LOGGED BY	S. Dalie
REVIEWED BY	M. Derby, PE# 55475
REMARKS	Hand augered to 5' bgs.

BORING/WELL NAME	SB-15
DRILLING STARTED	26-Jun-03
DRILLING COMPLETED	26-Jun-03
WELL DEVELOPMENT DATE (YIELD)	NA
GROUND SURFACE ELEVATION	47
TOP OF CASING ELEVATION	NA
SCREENED INTERVAL	NA
DEPTH TO WATER (First Encountered)	25.0 ft (26-Jun-03) ∇
DEPTH TO WATER (Static)	24.0 ft ▼

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)
2.5				~2.5
1			SB-15-10	10
0			SB-15-15	15
10			SB-15-20	20
9			SB-15-22.5	22.5
25			SB-15-25	25
21			SB-15-30	30

U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)
	Asphalt	0.5
CL	Silty CLAY (CL); black; soft; dry; 55% clay, 45% silt; high plasticity.	10.0
ML	Clayey SILT (ML); black; soft; dry; 45% clay, 55% silt; high plasticity.	11.0
CL	Silty CLAY with gravel (CL); black; very stiff; dry; 50% clay, 40% silt, 10% gravel; high plasticity. @ 14 fbg - gray; 60% clay, 40% silt.	16.5
	SILT (ML); olive gray; very stiff; dry; 15% clay; 85% silt; medium placticity.	21.0
GW	GRAVEL (GW); olive gray; loose; dry; 20% sand, 80% gravel; no plasticity.	23.0
GP GC	Clayey GRAVEL (GP-GC); olive gray; dense; damp; 30% clay, 70% gravel; medium plasticity. ▼ ∇ @ 25 fbtg - wet.	30.0
SM	Silty SAND (SM); olive gray; medium dense; wet; 10% clay, 20% silt, 70% sand; low plasticity. @ 32 fbg - 10% clay, 25% silt, 55% sand, 10% gravel.	34.0
	CLAY with gravel (CL); olive brown; very stiff; damp;	

WELL DIAGRAM: ◄ Portland Type I/II Cement

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BORING/WELL LOG

CLIENT NAME Shell Oil Products US
JOB/SITE NAME 1784 150th Avenue
LOCATION San Leandro, California
BORING/WELL NAME SB-15
DRILLING STARTED 26-Jun-03
DRILLING COMPLETED 26-Jun-03

Continued from Previous Page

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
50			SB-15 -36			CL		90% clay, 10% gravel; high plasticity.	36.0	Bottom of Boring @ 36 ft

WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 8/25/03

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US
JOB/SITE NAME	1784 150th Avenue
LOCATION	San Leandro, California
PROJECT NUMBER	245-0612-007
DRILLER	Gregg Drilling
DRILLING METHOD	Hydraulic push
BORING DIAMETER	2"
LOGGED BY	S. Dalie
REVIEWED BY	M. Derby, PE# 55475
REMARKS	Hand augered to 5' bgs.

BORING/WELL NAME	SB-16
DRILLING STARTED	23-Jun-03
DRILLING COMPLETED	23-Jun-03
WELL DEVELOPMENT DATE (YIELD)	NA
GROUND SURFACE ELEVATION	40.7
TOP OF CASING ELEVATION	NA
SCREENED INTERVAL	NA
DEPTH TO WATER (First Encountered)	24.0 ft (23-Jun-03) ∇
DEPTH TO WATER (Static)	14.2 ft ▼

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)
						Asphalt	0.5
				5	CL	**Silty CLAY** (CL); black; soft; dry; 55% clay, 45% silt; high plasticity.	8.0
0			SB-16 -10	10	ML	**Clayey SILT** (ML);olive gray; medium stiff; dry; 35% clay, 65% silt; high plasticity.	14.0
1			SB-16 -15	15	CL	**Silty CLAY** (CL); dark olive gray; very stiff; dry; 80% clay, 20% silt; high plasticity.	
1			SB-16 -20	20		@ 20 fbg - 70% clay, 20% silt, 10% gravel.	24.0
0			SB-16 -24		GP GC	**Clayey GRAVEL** (GP-GC); light olive brown; medium dense; wet; 30% clay, 10% sand, 60% gravel; medium plasticity.	25.5
0			SB-16 -25	25	GW	**GRAVEL** (GW); light olive brown ; dense; wet; 20% sand, 80% gravel; no plasticity.	26.5
					CL	**Silty CLAY** (CL); light olive brown; very stiff; damp; 80% clay, 20% silt; high plasticity.	28.0
0			SB-16 -28		GP GC	**Clayey GRAVEL** (GP-GC); light olive brown; loose; wet; 5% clay, 15% sand, 80% gravel; low plasticity.	29.5
1			SB-16 -30	30	ML	**Clayey SILT** (ML); dark olive brown; medium stiff; damp; 10% clay, 90% silt; high plasticity.	33.0
				35		**GRAVEL** (GW); dark olive gray; loose; wet; 20% sand, 80% gravel; no plasticity.	

WELL DIAGRAM: ◄ Portland Type I/II Cement

Continued Next Page

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-16
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	23-Jun-03
LOCATION	San Leandro, California	**DRILLING COMPLETED**	23-Jun-03

Continued from Previous Page

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
1			SB-16 -35			GP GC		**Clayey GRAVEL** (GP-GC); dark olive gray; medium stiff; wet; 40% clay, 20% sand, 40% gravel; low plasticity.	36.0	
0			SB-16 ~39.5		40				40.0	Bottom of Boring @ 40 ft

WELL LOG (PID/TPHG) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 8/25/03

Stanford Environmental Technology, Inc.

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-17
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	13-Sep-04
LOCATION	San Leandro, California	**DRILLING COMPLETED**	13-Sep-04
PROJECT NUMBER	246-0612-008	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	34.0 ft (13-Sep-04) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	28.50 ft (13-Sep-04) ▼
REMARKS	Hand augered to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							Asphalt	0.5	
					GM		**Silty GRAVEL with clay**; (GM); Black; very stiff; dry; 15% clay, 25% silt, 60% gravel; no plasticity.	2.5	
		SB-17-5'		5	CL		**Silty CLAY**; (CL); Black; very stiff; dry; 85% clay, 15% silt; low to medium plasticity.		
		SB-17-10		10					
					ML		**Sandy SILT**; (ML); Olive brown; dense; dry; 5% clay, 70% silt, 25% sand; no plasticity.	13.5	
		SB-17-15		15	SM		**Silty SAND with Gravel**; (SM); Olive brown; very dense; dry; 25% silt, 60% sand; 15% gravel; no plasticity.	15.5	
					CL		**Silty CLAY with gravel**; (CL); Dark olive brown; very stiff; dry; 70% clay, 20% silt, 10% gravel; no plasticity.	18.0	◄ Portland Type I/II Cement
		SB-17-20		20					
		SB-17-25		25	ML		**Clayey SILT**; (ML); Brownish gray; very stiff; dry; 60% clay, 30% silt; 10% gravel; low platicity.	24.0	
							No recovery. ▼	28.0	
				30					
					GC		**Clayey Gravel with sand**; (GC); brownish gray; medium dense; wet; 25% clay, 15% sand, 70% gravel; no plasticity. ▽	32.0	
		SB-17-35.5		35				36.0	Bottom of Boring @ 36 ft

WELL LOG (SHELL) G:\SAN LEANDRO 1784 150TH\GINT\SNL1784.GPJ DEFAULT.GDT 10/19/04

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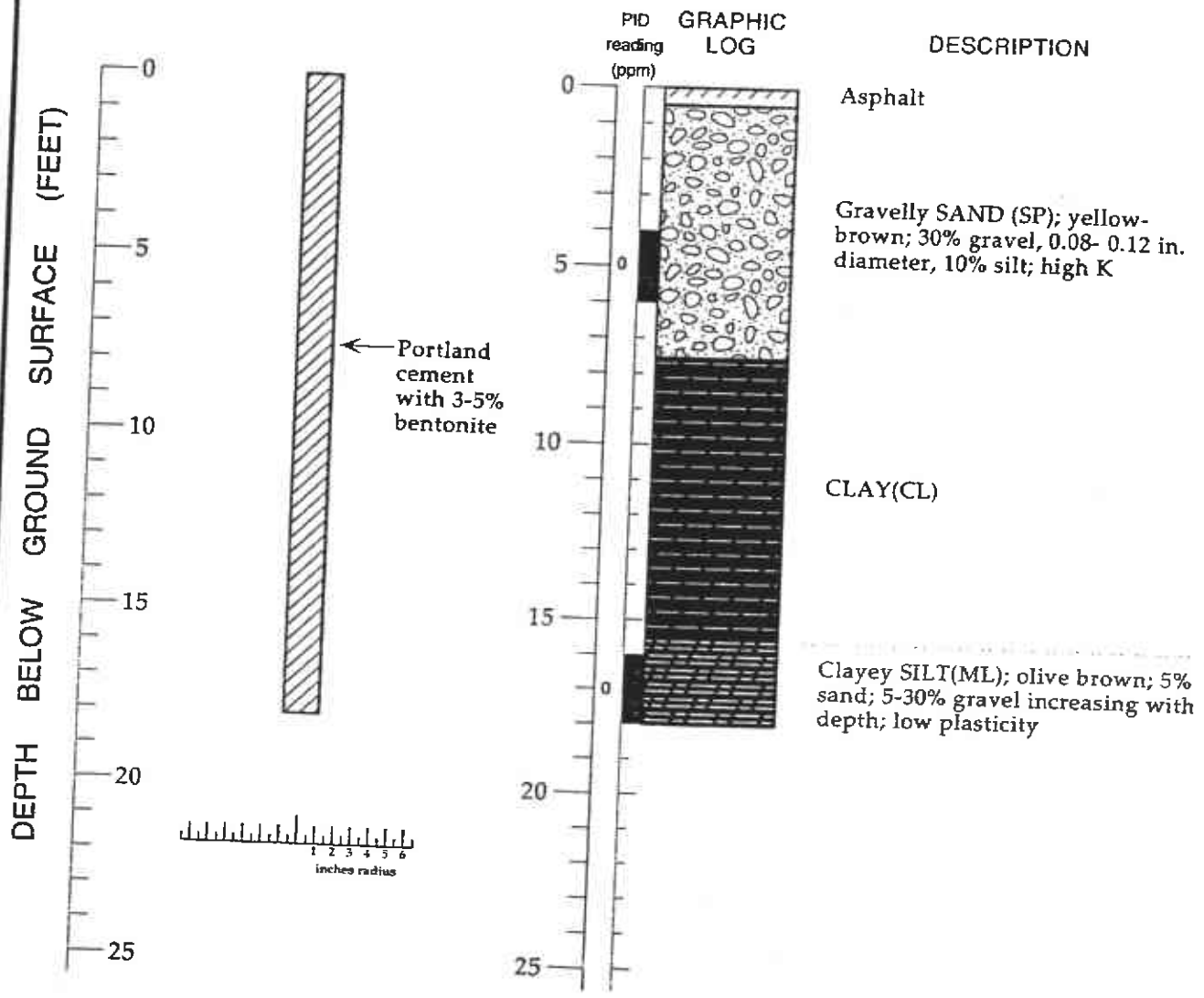
BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-18
JOB/SITE NAME	1784 150th Avenue	**DRILLING STARTED**	13-Sep-04
LOCATION	San Leandro, California	**DRILLING COMPLETED**	13-Sep-04
PROJECT NUMBER	246-0612-008	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	32.0 ft (13-Sep-04) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	27.60 ft (13-Sep-04) ▼
REMARKS	Hand augered to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							Asphalt	0.6	
					GM		Silty GRAVEL; (GM); Yellowish brown; medium dense; dry; 25% silt, 75% gravel.		
								3.0	
		SB-18-5'		5			Silty CLAY; (CL); Black very stiff; dry; 85% clay, 15% silt; low plasticity.		
					CL				
		SB-18-10		10					
		SB-18-15		15				15.0	
					SM		Silty SAND with Gravel; (SM); Olive brown; very dense; dry; 25% silt, 60% sand; 15% gravel; no plasticity.		Portland Type I/II Cement
		SB-18-20		20					
					SW		Well graded SAND; (SW); Olive; medium dense; damp; 5% clay, 90% sand; no platicity.	22.7	
							No Recovery.	24.0	
		SB-18-25		25					
							▼	28.0	
					CL		Silty CLAY; (CL); Olive brown; very stiff; dry; 60% clay, 40% silt; low platicity.		
		SB-18-30'		30				30.3	
							Clayey Gravel with sand; (GC); brownish gray; medium dense; wet; 35% clay, 15% sand, 50% gravel; no plasticity. ▽	32.0	Bottom of Boring @ 32 ft

WELL LOG (SHELL) G:\SAN LEANDRO 1784-150TH\GINT\SNL1784.GPJ DEFAULT.GDT 10/18/04

LITHOLOGIC LOG SVS-3



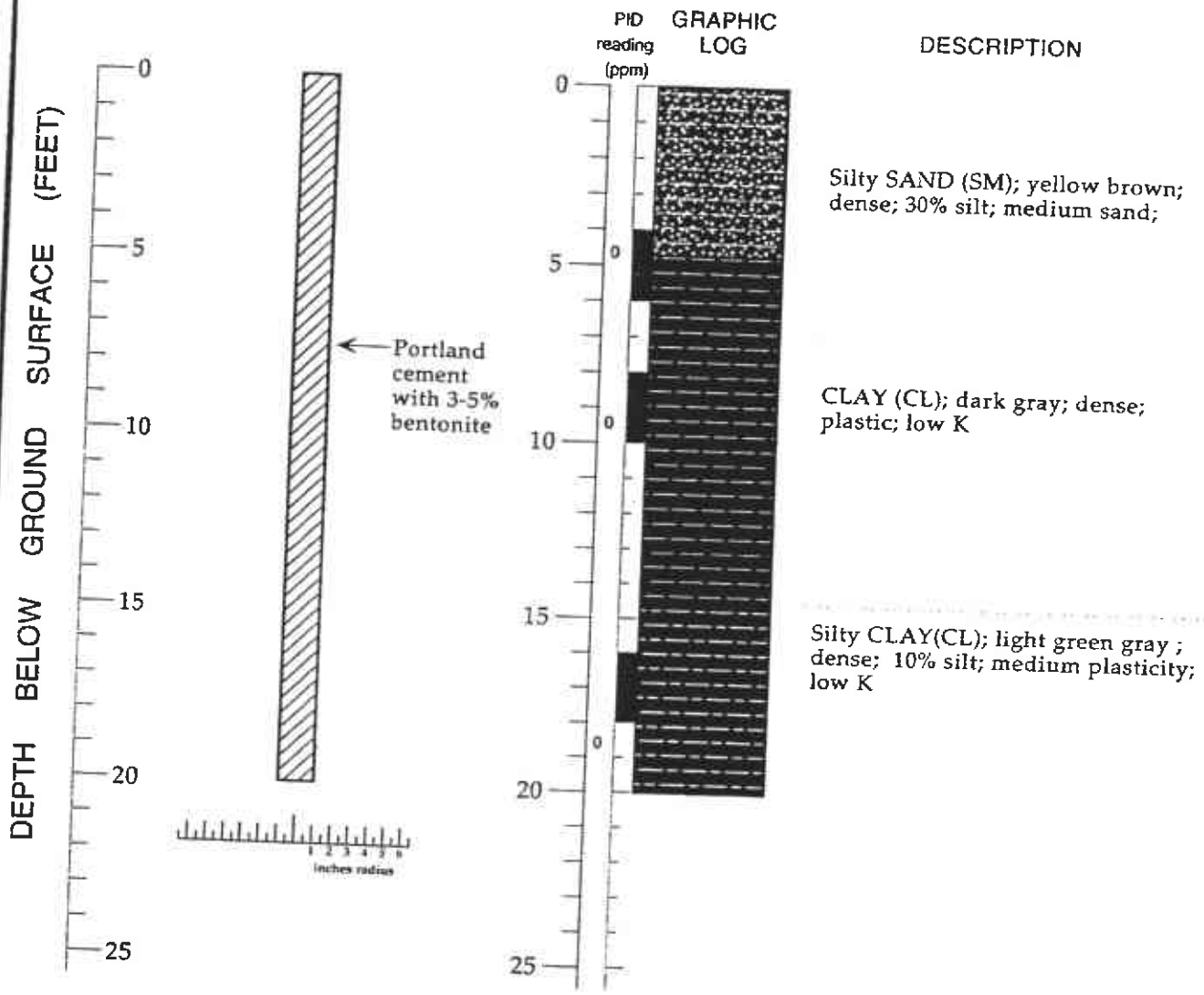
EXPLANATION

- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Chuck Headlee
Supervisor: Jim Carmody; CEG 1576
Drilling Company: Interphase Inc.
License Number: C57-485165
Driller: Rick Nessinger
Drilling Method: Geoprobe
Date Drilled: August 18, 1996
Type of Sampler: Geoprobe Sampler
PID: Photoionization detector

Lithographic Log Details - Lithographic Log SVS-3, Shell Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, California

LITHOLOGIC LOG SVS-5



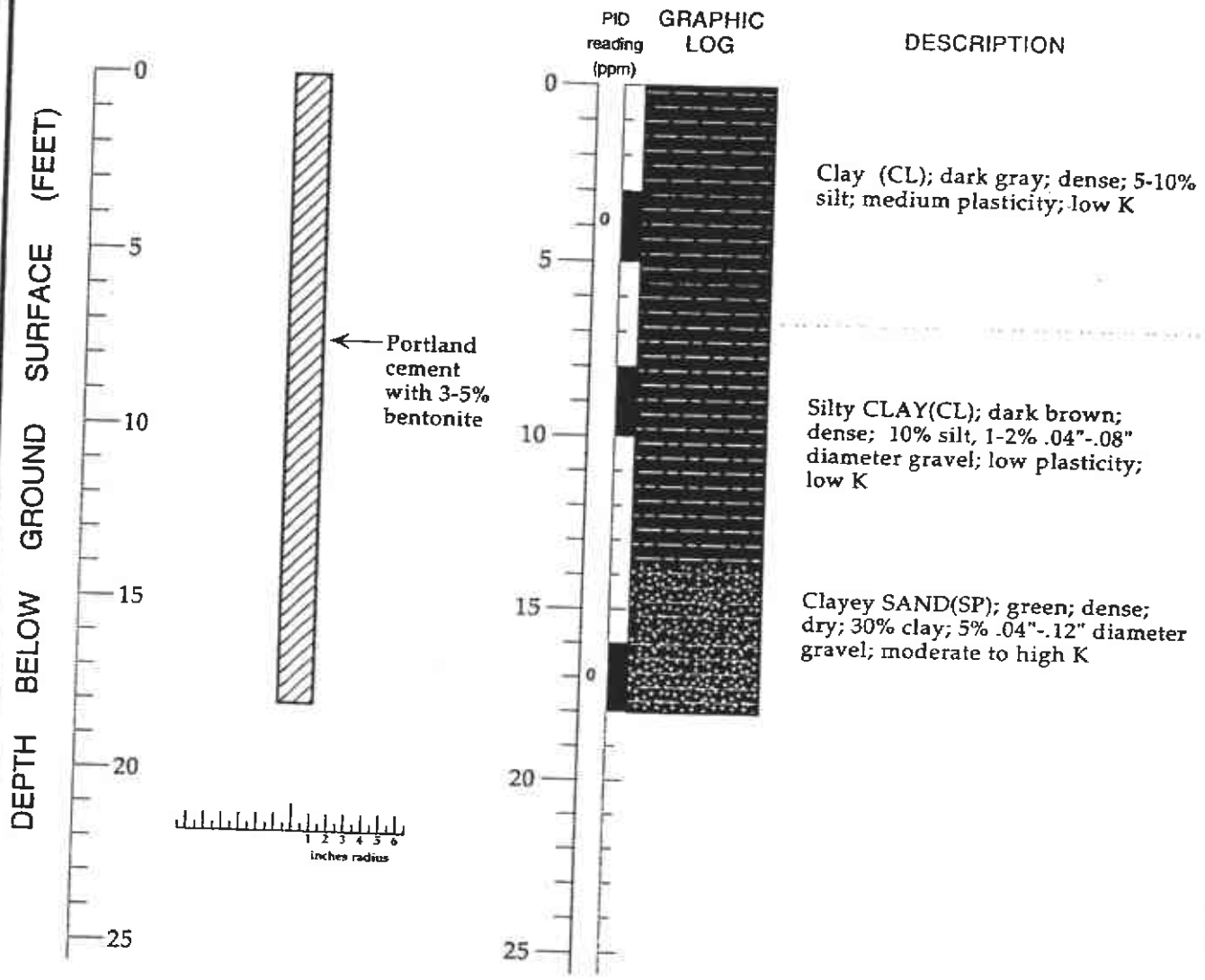
EXPLANATION

- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Chuck Headlee
Supervisor: Jim Carmody, CEG 1576
Drilling Company: Interphase Inc.
License Number: C57-606481
Driller: Rick Nessinger
Drilling Method: Geoprobe
Date Drilled: August 18, 1996
Type of Sampler: Geoprobe Sampler
PID: Photoionization detector

Lithographic Log Details - Lithographic Log SVS-5, Shell Service Station, WIC#204-6852-1404, 1784 150th Avenue, San Leandro, California

LITHOLOGIC LOG SVS-9



EXPLANATION

- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Chuck Headlee
Supervisor: Jim Carmody, CEG 1576
Drilling Company: Interphase Inc.
License Number: C57-606481
Driller: Rick Nessinger
Drilling Method: Geoprobe
Date Drilled: July 19, 1996
Type of Sampler: Geoprobe Sampler
PID: Photionization detector

Lithographic Log Details - Lithographic Log SVS-9, Shell Service Station, WIC#204-6852-1404, 1784 150th Avenue San Leandro, California

ATTACHMENT C

Well Survey Results

Table 1. D Weiss Associates Well Survey Results - 1992
Shell-branded Service Station, 1784 150th Street, San Leandro, California - Incident # 98996068

ED	Owner		Use	Year Drilled
1	Fairmont Hospital	15400 Foothill Blvd.	Domestic	1952
2-3	Howard E. Green	14752 Craft Avenue	Irrigation	1977
4	Robert W. Bennett, Jr.	14830 Sylvia Way	Irrigation	1977
5	Carl C. McEbcoy	14852 Towers Street	Irrigation	1977
6-11	Triequity	15035 E 14th Street	Monitoring	1990
12	John Deburn	1614 Halsey	Irrigation	1977
13-14	Mohammad A. Wahhoon	15101 Freedom Ave (Arco Service Station)	Monitoring	1989
15-17	Fairmont Hospital	15400 Foothill Blvd.	Monitoring	1989
18	Phillip Gonsales	Oriole & Liberty	Irrigation	1977
19	Paul M. Fearson	1573 153rd Avenue	Irrigation	1977
20	C&H Development Co.	150th Ave & E 14th Street	Monitoring	1988
21	August Farias	1725 Halsey	Irrigation	1977

Notes and Abbreviations:

Well table information from Weiss Associates April 1992 report

G:\San Leandro 1784 150th\Well Survey\[1784 150th Well Survey Table 1992.xls]1994 WA Table

ATTACHMENT D

Historical Groundwater Data

Table 2. Groundwater Analytical Results - Shell-branded Service Station, Incident # 98996068, 1784 150th Avenue, San Leandro, California

Sample ID	Sample Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2 DCA	EDB	Ethanol
		← (ppb) →												
BH-1	6/6/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
BH-2	6/6/1994	**5,200 a**	**8.8**	<0.50	**9.1**	<0.50	---	---	---	---	---	---	---	---
BH-3	6/6/1994	**120,000 b**	**25,000**	**14,000**	**3,100**	**13,000**	---	---	---	---	---	---	---	---
BH-4	6/7/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
BH-5	6/7/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
BH-6	6/7/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
BH-7-17-W	2/14/1995	**100**	**1.0**	**1.0**	<0.5	<0.5	---	---	---	---	---	---	---	---
BH-9-20-W	2/14/1995	**90**	**0.9**	**0.9**	<0.5	<0.5	---	---	---	---	---	---	---	---
SVS-11-W1	11/10/1998	**130,000**	**18,000**	**1,800**	**5,700**	**31,000**	**1,500**	---	---	---	---	---	---	---
SVS-12-W1	11/11/1998	**64,000**	**1,800**	**770**	**2,700**	**17,000**	<250	---	---	---	---	---	---	---
SVS-14-W1	11/11/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---
SVS-15-W1	11/11/1998	<50	<0.50	<0.50	<0.50	**0.80**	<2.5	---	---	---	---	---	---	---
SVS-16-W1	11/11/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---
MW7-W	10/03/02	**60,000**	**59**	**590**	**1,900**	**7,300**	<100	---	---	---	---	---	---	---
MW8-W	10/04/02	**83,000**	**810**	**2,000**	**3,700**	**17,000**	<500	---	---	---	---	---	---	---
SB9-W	10/04/02	**78,000**	**2,200**	**8,200**	**2,300**	**13,000**	<500	---	---	---	---	---	---	---
SB-10-W	6/23/03	<50	**1.1**	**0.84**	<0.50	**1.7**	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50	<50
SB-11-W	6/24/03	**75**	**0.84**	**0.53**	**1.5**	**7.1**	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50	<50
SB-12-W	6/24/03	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50	<50
SB-13-W	6/23/03	<50	**0.89**	**0.52**	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50	<50
SB-14-W	6/24/03	**67,000**	<100	**280**	**3,800**	**16,000**	<100	<1000	<400	<400	<400	<100	<100	<1000

Table 2. Groundwater Analytical Results - Shell-branded Service Station, Incident # 98996068, 1784 150th Avenue, San Leandro, California

Sample ID	Sample Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2 DCA	EDB	Ethanol
		← (ppb) →												
SB-15-W	6/26/03	**6,800**	**530**	<25	**380**	**560**	**40**	<250	<100	<100	<100	<25	<25	<2500
SB-16-W	6/23/03	<50	**0.67**	<0.50	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50	<50
SB-17-W	09/13/04	<50	<0.50	**4.2**	**2.0**	**7.9**	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50	<50
SB-18-W	09/13/04	**55**	<0.50	**5.5**	**2.5**	**10.0**	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50	<50

Abbreviations and Notes:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015 in 1998, and by EPA Method 8260B afterwards.

Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020 in 1998, and by EPA Method 8260B afterwards.

MTBE = methyl tertiary butyl ether by EPA Method 8020 in 1998 and by EPA Method 8260B afterwards

TBA = Tert-Butyl alcohol, analyzed by EPA Method 8260B.

ETBE = Ethyl tert butyl ether, analyzed by EPA Method 8260B.

DIPE = Di-isopropyl Ether, analyzed by EPA Method 8260B.

TAME = tert-Amyl methyl ether, analyzed by EPA Method 8260B.

1,2-DCA = 1,2-dichloroethane

EDB = Ethyl di-bromide, analyzed by EPA Method 8260B.

Ethanol analyzed by EPA Method 8260B.

ppb = parts per billion

--- = not analyzed

a - Chromatogram pattern as weathered gasoline

b - Chromatogram pattern as gasoline

ATTACHMENT E

Soil Vapor Sample Results

Table 1. Analytic Results for Vapor Samples - Shell Service Station WIC #204-6852-1404, 1784 - 150th Avenue, San Leandro, California.

Sample ID	Sample Depth (ft)	B	E	T	X	O_2	CO_2	CH_4
		← parts per billion by volume (ppbv) →				← percent by volume →		
SVS-1	4	37	130	100	390	18	2.1	<0.002
SVS-2	4	50	36	85	150	19	2.8	<0.002
SVS-3	1	410	190	560	660	18	3.8	<0.002
SVS-3	2	130	75	350	220[m]	18	3.0	0.003
SVS-3	3	230	84	420	200[m]	17	5.4	<0.002
SVS-3	8	210	210	190	340	21	0.23	<0.002
SVS-3	18	26	61	170	230	20	0.45	0.004
SVS-4	4	140	160	320	280[m]	15	7.9	<0.002
SVS-5	3	7,600	1,200	4,900	4,500[m]	5.8	23	1.6
SVS-5	13	1,400	55[m]	260	660[m]	21	0.57	0.036
SVS-5dup	13	1,400	96[m]	270	620[m]	N/A	N/A	N/A
SVS-5	20	2,500	300	570	740	20	0.38	0.039
SV-6	4	180[m]	33	180	170[m]	21	0.066	<0.002
SVS-7	4	25	66	21	70	20	0.049	<0.002
SVS-8	5	180	88	190	330	21	0.057	<0.002
SVS-8dup	5	N/A	N/A	N/A	N/A	22	0.057	<0.002
SVS-9	3	21	25	24	230[m]	21	0.058	<0.002
SVS-9	6.5	150[m]	68	72	380	21	0.099	<0.002
SVS-9	13	360	290	180	220	21	0.056	0.003
SVS-9	18	320	49	110	70	21	0.046	<0.002
SVS-10	3	110	100	89	430[m]	19	1.8	<0.002

Table 1. Analytic Results for Vapor Samples - Shell Service Station WIC #204-6852-1404, 1784 - 150th Avenue, San Leandro, California (continued).

Abbreviations:

B = Benzene by Modified California Air Resources Board Method 410A
E = Ethylbenzene by Modified California Air Resources Board Method 410A
T = Toluene by Modified California Air Resources Board Method 410A
X = Xylenes by Modified California Air Resources Board Method 410A
O_2 = Oxygen by ASTM Method D3416
CO_2 = Carbon dioxide by ASTM Method D3416
CH_4 = Methane by ASTM Method D3416
<n = Not detected at detection limits of n ppbv
m = Reported value may be biased due to apparent matrix interferences
N/A = Duplicate sample not analyzed for these compounds

Notes:

Samples collected on 7/18/96 and 7/19/96 by Weiss Associates and analyzed by Air Toxics, Folsom, California

Soil Vapor Analytical Data - Shell-branded Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, CA

Sample ID	Date	TPHg C5 + Hydrocarbons	TPHg C2-C4 Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylenes
		← (Concentrations in ppmv) →					
SVS-11-5	11/10/1998	**1.0**	**0.10**	<0.0029	**0.029**	<0.0029	<0.0029
SVS-11-10	11/10/1998	**0.67**	**0.029**	**0.0025**	**0.065**	<0.0023	<0.0023
SVS-11-15	11/10/1998	**1.4**	**0.063**	**0.0060**	**0.012**	<0.0023	<0.0023
SVS-12-5	11/10/1998	**1.2**	**0.035**	**0.0070**	**0.014**	**0.0032**	**0.017**
SVS-12-10	11/10/1998	**1.3**	**0.056**	**0.0038**	**0.024**	**0.0034**	**0.015**
SVS-12-15	11/10/1998	**1.4**	**0.072**	**0.0053**	**0.010**	<0.0025	**0.0038**
SVS-12-20	11/10/1998	**1.5**	**0.053**	**0.0045**	**0.017**	**0.0034**	**0.011**
SVS-13-5	11/10/1998	**1.6**	**0.033**	<0.0024	**0.011**	**0.0031**	**0.012**
SVS-13-10	11/10/1998	**1.4**	**0.060**	**0.0043**	**0.0099**	<0.0023	**0.0031**
SVS-13-15	11/10/1998	**1.4**	**0.090**	**0.0036**	**0.011**	<0.0034	**0.0042**
SVS-13-20	11/10/1998	**1.6**	**0.033**	<0.0033	<0.0033	<0.0033	<0.0033
SVS-14-5	11/11/1998	**1.9**	**0.043**	<0.0035	**0.0081**	**0.0036**	**0.0064**
SVS-14-10	11/11/1998	**2.7**	**0.056**	**0.0077**	**0.035**	**0.0084**	**0.037**
SVS-14-15	11/11/1998	**2.1**	**0.070**	<0.0023	**0.0086**	<0.0023	**0.0024**
SVS-14-15 D	11/11/1998	**1.9**	**0.061**	<0.0023	**0.0069**	<0.0023	**0.0018**
SVS-15-5	11/11/1998	**0.70**	**0.034**	<0.0034	**0.0069**	<0.0034	<0.0034
SVS-15-10	11/11/1998	**1.2**	**0.17**	**0.0056**	**0.016**	<0.0045	<0.0045
SVS-15-15	11/11/1998	**1.1**	<0.045	<0.0045	**0.010**	<0.0045	<0.0045
SVS-15-20	11/11/1998	**1.4**	**0.038**	<0.0035	**0.018**	<0.0035	<0.0035
SVS-16-5	11/11/1998	**1.3**	**0.075**	**0.0099**	**0.039**	<0.0033	**0.0041**
SVS-16-10	11/11/1999	**1.9**	**0.12**	**0.0074**	**0.020**	<0.0023	<0.0023

Soil Vapor Analytical Data - Shell-branded Service Station WIC# 204-6852-1404, 1784 150th Avenue, San Leandro, CA

Sample ID	Date	TPHg C5 + Hydrocarbons	TPHg C2-C4 Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylenes
		← (Concentrations in ppmv) →					
SVS-16-10 D	11/11/1999	**2.0**	**0.11**	**0.0072**	**0.018**	<0.0023	<0.0023
SVS-16-15	11/11/1999	**2.0**	**0.038**	**0.0023**	**0.0073**	<0.0023	<0.0023

Abbreviations and Notes:

TPHg = Total petroleum hydrocarbons as gasoline by Modified CARB 410A

Benzene, toluene, ethylbenzene, and total xylenes by Modified CARB 410A

ppmv = Parts per million by volume

<**n** = Below detection limit of **n** ppmv

D = Duplicate

ATTACHMENT F

GWE and DPE Data Tables

Table 1: Mobile Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98996068, 1784 150th Avenue, San Leandro, Calif

					TPPH			Benzene			MTBE		
Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)
07/03/02	MW-2	482	482	06/18/02	72,000	0.28958	0.28958	9,500	0.03821	0.03821	29,000	0.11664	0.11664
07/17/02	MW-2	834	1,316	06/18/02	72,000	0.50106	0.79064	9,500	0.06611	0.10432	29,000	0.20182	0.31845
07/31/02	MW-2	213	1,529	06/18/02	72,000	0.12797	0.91861	9,500	0.01688	0.12121	29,000	0.05154	0.37000
08/14/02	MW-2	664	2,193	06/18/02	72,000	0.39893	1.31754	9,500	0.05264	0.17384	29,000	0.16068	0.53068
09/16/02	MW-2	662	2,855	06/18/02	72,000	0.39773	1.71527	9,500	0.05248	0.22632	29,000	0.16019	0.69087
10/14/02	MW-2	501	3,356	09/18/02	48,000	0.20067	1.91593	7,600	0.03177	0.25809	8,700	0.03637	0.72724
11/11/02	MW-2	547	3,903	09/18/02	48,000	0.21909	2.13502	7,600	0.03469	0.29278	8,700	0.03971	0.76695
12/09/02	MW-2	106	4,009	09/18/02	48,000	0.04246	2.17748	7,600	0.00672	0.29950	8,700	0.00770	0.77465
01/08/03	MW-2	652	4,661	12/27/02	40,000	0.21762	2.39510	5,900	0.03210	0.33160	19,000	0.10337	0.87802
02/04/03	MW-2	326	4,987	12/27/02	40,000	0.10881	2.50391	5,900	0.01605	0.34765	19,000	0.05168	0.92970
03/05/03	MW-2	647	5,634	03/05/03	62,000	0.33473	2.83863	13,000	0.07018	0.41784	21,000	0.11337	1.04308
04/08/03	MW-2	434	6,068	03/05/03	62,000	0.22453	3.06316	13,000	0.04708	0.46491	21,000	0.07605	1.11913
05/06/03	MW-2	736	6,804	03/05/03	62,000	0.38077	3.44393	13,000	0.07984	0.54475	21,000	0.12897	1.24810
06/06/03	MW-2	348	7,152	03/05/03	62,000	0.18004	3.62397	13,000	0.03775	0.58250	21,000	0.06098	1.30908
07/14/03	MW-2	391	7,543	06/24/03	19,000	0.06199	3.68596	9,500	0.03100	0.61350	14,000	0.04568	1.35475
08/12/03	MW-2	591	8,134	06/24/03	19,000	0.09370	3.77966	9,500	0.04685	0.66035	14,000	0.06904	1.42380
09/12/03	MW-2	399	8,533	06/24/03	19,000	0.06326	3.84292	9,500	0.03163	0.69198	14,000	0.04661	1.47041
10/10/03	MW-2	837	9,370	09/25/03	65,000	0.45397	4.29689	24,000	0.16762	0.85960	19,000	0.13270	1.60311
11/12/03	MW-2	259	9,629	09/25/03	65,000	0.14048	4.43737	24,000	0.05187	0.91147	19,000	0.04106	1.64417
12/05/03	MW-2	727	10,356	09/25/03	65,000	0.39431	4.83168	24,000	0.14559	1.05706	19,000	0.11526	1.75943
01/02/04	MW-2	1,168	11,524	12/15/03	67,000	0.65300	5.48468	18,000	0.17543	1.23249	11,000	0.10721	1.86664
02/03/04	MW-2	962	12,486	12/15/03	67,000	0.53783	6.02251	18,000	0.14449	1.37698	11,000	0.08830	1.95494
03/02/04	MW-2	343	12,829	12/15/03	67,000	0.19176	6.21427	18,000	0.05152	1.42850	11,000	0.03148	1.98642
03/16/04	MW-2	856	13,685	03/04/04	72,000	0.51428	6.72855	27,000	0.19285	1.62136	13,000	0.09286	2.07928
04/06/04	MW-2	652	14,337	03/04/04	72,000	0.39172	7.12026	27,000	0.14689	1.76825	13,000	0.07073	2.15001
04/28/04	MW-2	400	14,737	03/04/04	72,000	0.24032	7.36058	27,000	0.09012	1.85837	13,000	0.04339	2.19340

Table 1: Mobile Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98996068, 1784 150th Avenue, San Leandro, Calif

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)
					TPPH			Benzene			MTBE		
05/04/04	MW-2	700	15,437	03/04/04	72,000	0.42056	7.78114	27,000	0.15771	2.01608	13,000	0.07593	2.26933
05/11/04	MW-2	600	16,037	03/04/04	72,000	0.36048	8.14161	27,000	0.13518	2.15126	13,000	0.06509	2.33442
05/18/04	MW-2	1,169	17,206	03/04/04	72,000	0.70233	8.84394	27,000	0.26337	2.41463	13,000	0.12681	2.46122
05/25/04	MW-2	867	18,073	03/04/04	72,000	0.52089	9.36483	27,000	0.19533	2.60996	13,000	0.09405	2.55527
06/02/04	MW-2	1,533	19,606	05/27/04	74,000	0.94660	10.31143	6,000	0.07675	2.68671	19,000	0.24305	2.79832
06/08/04	MW-2	809	20,415	05/27/04	74,000	0.49954	10.81097	6,000	0.04050	2.72722	19,000	0.12826	2.92658
06/15/04	MW-2	1,462	21,877	05/27/04	74,000	0.90276	11.71373	6,000	0.07320	2.80041	19,000	0.23179	3.15837
06/22/04	MW-2	1,720	23,597	05/27/04	74,000	1.06207	12.77580	6,000	0.08611	2.88653	19,000	0.27269	3.43106
06/29/04	MW-2	1,100	24,697	05/27/04	74,000	0.67923	13.45503	6,000	0.05507	2.94160	19,000	0.17440	3.60546
07/06/04	MW-2	1,595	26,292	05/27/04	74,000	0.98488	14.43992	6,000	0.07986	3.02145	19,000	0.25288	3.85834
07/16/04	MW-2	1,643	27,935	05/27/04	74,000	1.01452	15.45444	6,000	0.08226	3.10371	19,000	0.26049	4.11882
07/20/04	MW-2	1,578	29,513	05/27/04	74,000	0.97439	16.42883	6,000	0.07900	3.18272	19,000	0.25018	4.36900
07/27/04	MW-2	1,660	31,173	05/27/04	74,000	1.02502	17.45385	6,000	0.08311	3.26583	19,000	0.26318	4.63218
08/10/04	MW-2	28	31,201	05/27/04	74,000	0.01729	17.47114	6,000	0.00140	3.26723	19,000	0.00444	4.63662
08/24/04	MW-2	1,273	32,474	05/27/04	74,000	0.78606	18.25719	6,000	0.06373	3.33096	19,000	0.20182	4.83845
03/23/04	MW-11	142	142	03/04/04	68,000	0.08057	0.08057	5,300	0.00628	0.00628	8,300	0.00983	0.00983
04/20/04	MW-11	122	264	03/04/04	68,000	0.06922	0.14980	5,300	0.00540	0.01168	8,300	0.00845	0.01828
04/28/04	MW-11	101	365	03/04/04	68,000	0.05731	0.20711	5,300	0.00447	0.01614	8,300	0.00700	0.02528
05/04/04	MW-11	216	581	03/04/04	68,000	0.12256	0.32967	5,300	0.00955	0.02569	8,300	0.01496	0.04024
05/11/04	MW-11	268	849	03/04/04	68,000	0.15207	0.48174	5,300	0.01185	0.03755	8,300	0.01856	0.05880
05/18/04	MW-11	200	1,049	03/04/04	68,000	0.11348	0.59522	5,300	0.00885	0.04639	8,300	0.01385	0.07265
05/25/04	MW-11	60	1,109	03/04/04	68,000	0.03404	0.62926	5,300	0.00265	0.04905	8,300	0.00416	0.07681
06/02/04	MW-11	100	1,209	05/27/04	86,000	0.07176	0.70103	8,500	0.00709	0.05614	25,000	0.02086	0.09767
06/08/04	MW-11	250	1,459	05/27/04	86,000	0.17940	0.88043	8,500	0.01773	0.07387	25,000	0.05215	0.14982
06/15/04	MW-11	150	1,609	05/27/04	86,000	0.10764	0.98807	8,500	0.01064	0.08451	25,000	0.03129	0.18111

Table 1: Mobile Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98996068, 1784 150th Avenue, San Leandro, Calif

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)
					TPPH			**Benzene**			**MTBE**		
06/22/04	MW-11	50	1,659	05/27/04	86,000	0.03588	1.02395	8,500	0.00355	0.08806	25,000	0.01043	0.19154
06/29/04	MW-11	100	1,759	05/27/04	86,000	0.07176	1.09571	8,500	0.00709	0.09515	25,000	0.02086	0.21240
07/06/04	MW-11	52	1,811	05/27/04	86,000	0.03732	1.13303	8,500	0.00369	0.09884	25,000	0.01085	0.22325
07/16/04	MW-11	100	1,911	05/27/04	86,000	0.07176	1.20479	8,500	0.00709	0.10593	25,000	0.02086	0.24411
07/20/04	MW-11	50	1,961	05/27/04	86,000	0.03588	1.24067	8,500	0.00355	0.10948	25,000	0.01043	0.25454
07/27/04	MW-11	50	2,011	05/27/04	86,000	0.03588	1.27655	8,500	0.00355	0.11302	25,000	0.01043	0.26497
08/10/04	MW-11	15	2,026	05/27/04	86,000	0.01076	1.28732	8,500	0.00106	0.11409	25,000	0.00313	0.26810
08/24/04	MW-11	80	2,106	05/27/04	86,000	0.05741	1.34473	8,500	0.00567	0.11976	25,000	0.01669	0.28479
Total Gallons Extracted:			**34,580**		**Total Pounds Removed:**		**19.60192**			**3.45072**			**5.12324**
					Total Gallons Removed:		**3.21343**			**0.47270**			**0.82633**

Abbreviations & Notes:

TPPH = Total purgeable hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
ppb = Parts per billion
gal = Gallon
Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10^6µg) x (pound/453.6g) x (3.785 L/gal)
Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)
TPPH, benzene, and MTBE analyzed by EPA Method 8260
If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.
Groundwater extracted by vacuum trucks provided by Onyx. Water disposed of at a Martinez Refinery.

Table 2. Temporary Groundwater Extraction Sytem Mass Removal Data, Shell-branded Service Station, 1784 150th Ave, San Leandro, CA

Date Baker Tank Purged	Extraction Well	Purged Volume (gal)	Cumulative Volume Pumped (gal)	Estimated System Flow Rate (gpm)	Sample Date	TPHg Concentration (ppb)	TPHg Removed (pounds)	Cumulative TPHg Removed (pounds)	Benzene Concentration (ppb)	Benzene removed (ppb)	Cumulative Benzene Removed (ppb)	MTBE Concentration (ppb)	MTBE Removed (pounds)	Cumulative MTBE Removed (pounds)
09/15/04	MW-2	385	385	0.05	5/27/2004[1]	74,000	0.238	0.238	6,000	0.019	0.019	19,000	0.061	0.061
09/24/04	MW-2	653	1,038	0.05	9/24/2004[2]	<100	0.202	0.440	<1.0	0.016	0.036	130	0.052	0.113
10/14/04	MW-2	0	1,038	0.00	10/14/04	360	0.000	0.440	<2.5	0.000	0.036	330	0.000	0.113
10/28/04	MW-2	2,958	3,996	0.15			0.009	0.448		0.00003	0.036		0.008	0.121
							subtotal	0.448		subtotal	0.036		subtotal	0.121
November 2004 Dual-Phase Extraction														
11/11/04	MW-2	7,445 a	11,441	1.85	11/22/2004[3]	8,800	0.55	1.00	1,200	0.075	0.110	2,200	0.14	0.258
11/13/04	MW-1	5,714 a	17,155	3.34	11/22/2004[3]	100,000	4.77	5.76	2,500	0.119	0.229	130	0.006	0.264
							subtotal	5.31		subtotal	0.194		subtotal	0.143
01/26/05	MW-11	4,845	22,000	0.05	1/14/05	96,000	3.88	9.64	8,300	0.336	0.565	20,000	0.809	1.07
02/18/05	MW-11	4,809	26,809	0.15	2/17/05	11,000	0.441	10.1	520	0.021	0.586	270	0.011	1.08
03/02/05	MW-11	5,746	32,555	0.33	3/1/05	83,000	3.98	14.1	7,700	0.369	0.955	18,000	0.863	1.95
03/16/05	MW-11	5,022	37,577	0.25			3.48	17.5		0.323	1.28		0.754	2.70
03/30/05	MW-11	4,725	42,302	0.23			3.27	20.8		0.304	1.58		0.710	3.41
04/06/05	MW-11	5,022	47,324	0.50			3.48	24.3		0.323	1.90		0.754	4.16
04/13/05	MW-11	540	47,864	0.05	4/14/05	120,000	0.541	24.8	3,400	0.015	1.92	8,500	0.038	4.20
							subtotal	19.1		subtotal	1.69		subtotal	3.94
			Total Gallons Extracted:		**47,864**	**Total Pounds Removed:**		**24.8**	**Total Pounds Removed:**		**1.92**	**Total Pounds Removed:**		**4.20**
						Total Gallons Removed:		**4.07**	**Total Gallons Removed:**		**0.263**	**Total Gallons Removed:**		**0.678**

Abbreviations & Notes:

TPHg = Total purgeable hydrocarbons as gasoline
MTBE = Methyl tertiary butyl ether
ppb = Parts per billion, equivalent to µg/L
µg/L = Micrograms per liter
L = Liter
gal = Gallon
g = Gram
NA = Not Available
Extracted groundwater transported by Onyx-Industrial to Martinez Refinery Corporation for disposal.
TPHg, benzene, and MTBE analyzed by EPA Method 8260b.
1. TPHg, benzene, and MTBE concentration from 2Q04 groundwater monitoring event.
2. TPHg, benzene, and MTBE concentration from 3Q04 groundwater monitoring event.
3. TPHg, benzene, and MTBE concentration from 4Q04 groundwater monitoring event.
a- Purged volume totals reflect multiple truckloads
When constituents are not detected, the concentration is assumed to be equal to half the detection limit in subsequent calculations.
Mass removed (pounds) based on the formula: volume(gal) x concentration(µg/L) x ($g/10^6 \mu g$) x (pound/453.6g) x (3.785 L/gal)
Volume removed (gallons) based on the formula: [mass(pounds) x 453.6(g/pound) x (gal/3.785L) x ($L/1000cm^3$)] / density(g/cm^3)
Density inputs: TPHg = 0.73 g/cc, benzene = 0.88 g/cc, MTBE = 0.74 g/cc

Table 3. Dual Phase Extraction - Vapor Phase - Mass Removal Data - Shell-branded Service Station, Incident# 98996068, 1784 150th Ave, San Leandro, CA

Date/Time	Hour Meter (hours)	Cumulative Operation (hours)	Well Head				Hydrocarbon Concentrations			TPHg		Benzene		MTBE	
			Vacuum		Flow Rate		TPHg	Benzene	MTBE	Removal Rate	Cumulative Removed	Removal Rate	Cumulative Removed	Removal Rate	Cumulative Removed
			Gage(in WC)	Abs(in WC)	(ACFM)	(SCFM)	(Concentrations in ppmv)			(#/hour)	(#)	(#/hour)	(#)	(#/hour)	(#)
Well MW-11															
11/8/2004 13:15	2556.6	0.0	29.6	377.2	59.0	54.7	**5,300**	**<3.1**	**<1.4**	3.88	0.00	0.001	0.000	0.000	0.000
13:45	2557.1	0.5	61.6	345.2	*130.0*	110.3	4,700			7.82	3.91	0.002	0.001	0.001	0.000
14:15	2557.6	1.0	46.7	360.1	*130.0*	115.1	9,900			8.15	7.98	0.002	0.002	0.001	0.001
14:45	2558.1	1.5	39.7	367.1	90.0	81.2	10,650			5.75	10.9	0.002	0.003	0.001	0.001
15:15	2558.6	2.0	70.0	336.8	*130.0*	107.6	5,100			11.9	16.8	0.016	0.011	0.002	0.002
15:45	2559.1	2.5	22.0	384.8	36.0	34.1	10,400			3.78	18.7	0.005	0.013	0.001	0.003
16:15	2559.7	3.1	22.5	384.3	*130.0*	122.8	**8,300**	**12**	**<2.8**	13.6	26.9	0.018	0.024	0.002	0.004
11/9/2004 7:45	2575.6	19.0	22.0	384.8	71.0	67.2				5.34	112	0.008	0.148	0.001	0.017
8:15	2576.1	19.5	20.0	386.8	80.0	76.1	**3,600**	**7.2**	**<1.4**	3.66	114	0.007	0.152	0.001	0.018
8:45	2576.6	20.0	21.0	385.8	27.0	25.6	230			1.23	114	0.002	0.153	0.0002	0.018
9:15	2577.1	20.5	20.0	386.8	57.0	54.2	250			2.61	116	0.005	0.155	0.0005	0.018
9:45	2577.6	21.0	20.0	386.8	25.0	23.8	305			1.14	116	0.002	0.156	0.0002	0.018
10:15	2578.1	21.5	39.0	367.8	5.0	4.5	318			0.218	116	0.000	0.156	0.00004	0.018
10:45	2578.6	22.0	40.0	366.8	9.2	8.3	375			0.333	116	0.001	0.157	0.0002	0.018
11:15	2579.1	22.5	39.5	367.3	8.5	7.7	408			0.308	117	0.001	0.157	0.0002	0.018
11:45	2579.6	23.0	24.0	382.8	14.0	13.2	395			0.528	117	0.001	0.158	0.0003	0.019
12:15	2580.1	23.5	24.0	382.8	21.0	19.8	408			0.792	117	0.002	0.159	0.001	0.019
12:45	2580.6	24.0	25.0	381.8	29.0	27.2	**3,000**	**8.5**	**2.1**	1.09	118	0.003	0.160	0.001	0.019
13:15	2581.1	24.5	24.5	382.3	29.5	27.7	405			1.11	118	0.003	0.162	0.001	0.019
11/10/2004 7:30	2599.9	43.3	22.5	384.3	32.6	30.8				0.885	135	0.003	0.210	0.001	0.031
8:00	2600.4	43.8	22.0	384.8	34.0	32.2	25			0.559	135	0.002	0.211	0.0005	0.031
8:30	2600.9	44.3	24.0	382.8	37.0	34.8	**1,300**	**5.2**	**1.2**	0.605	136	0.002	0.212	0.001	0.032
9:00	2601.4	44.8	23.0	383.8	29.0	27.4	230			0.475	136	0.002	0.213	0.0004	0.032
9:30	2602.0	45.4	5.3	401.5	85.0	83.9				1.46	137	0.005	0.216	0.001	0.032
10:00	2602.5	45.9	5.8	401.0	*130.0*	128.1				2.23	138	0.008	0.220	0.002	0.033
11:00	2603.5	46.9	2.2	404.6	20.0	19.9	220			0.984	139	0.003	0.223	0.001	0.035
12:00	2604.5	47.9	2.2	404.6	54.0	53.7	1,200			2.66	141	0.008	0.231	0.004	0.039
12:30	2605.0	48.4	*2.2*	404.6	*54.0*	53.7	**3,700**	**13**	**6.0**	2.66	143	0.008	0.236	0.004	0.041
15:30	2608.0	48.4	*2.4*	404.4	*13.3*	13.2				0.654	143	0.002	0.236	0.001	0.041
15:50	2608.4	48.8	2.4	404.4	13.3	13.2	2,830			0.654	143	0.002	0.237	0.001	0.041
11/11/2004 7:15	2624.2	64.6	2.0	404.8	11.1	11.0				0.001	143	0.00002	0.237	0.00001	0.041
8:00	2625.0	65.4	1.7	405.1	12.0	12.0	<5			0.001	143	0.00002	0.237	0.00001	0.041
8:30	2625.5	65.9	1.7	405.1	12.3	12.2	**<14**	**<0.31**	**<0.14**	0.001	143	0.00002	0.237	0.00001	0.041
9:30	2626.5	66.9	1.7	405.2	13.1	13.0				0.001	143	0.00002	0.237	0.00001	0.041
10:00	2627.1	67.5	*1.7*	405.1	*13.1*	13.0				0.001	143	0.00002	0.237	0.00001	0.041
11/12/2004 11:15	2629.1	67.5	15.5	391.3	76.6	73.7	2,950			5.023	143	0.013	0.237	0.005	0.041
11:30	2629.4	67.8	12.5	394.3	74.5	72.2	**5,100**	**14**	**5.7**	4.923	145	0.012	0.241	0.005	0.043

Table 3. Dual Phase Extraction - Vapor Phase - Mass Removal Data - Shell-branded Service Station, Incident# 98996068, 1784 150th Ave, San Leandro, CA

			Well Head				Hydrocarbon Concentrations			TPHg		Benzene		MTBE	
	Hour Meter	Cumulative Operation	Vacuum		Flow Rate		TPHg	Benzene	MTBE	Removal Rate	Cumulative Removed	Removal Rate	Cumulative Removed	Removal Rate	Cumulative Removed
Date/Time	(hours)	(hours)	Gage(in WC)	Abs(in WC)	(ACFM)	(SCFM)	(Concentrations in ppmv)			(#/hour)	(#)	(#/hour)	(#)	(#/hour)	(#)
11:45	2629.7	68.1	20.7	386.1	45.1	42.8	2,760			2.918	145	0.007	0.243	0.003	0.044
14:30	2632.5	70.9	10.4	396.4	17.7	17.2	1,547			1.176	149	0.003	0.251	0.001	0.047
11/13/2004 4:30	2646.3	84.7	*10.4*	396.4	*17.7*	17.2				1.176	165	0.003	0.291	0.001	0.063
Well MW-2															
11/10/2004 12:30	2605.0	0.0								0.000	0.000	0.00000	0.00000	0.00000	0.00000
13:00	2605.5	0.5	3.1	403.7	15.2	15.1	20			0.018	0.009	0.00003	0.00001	0.00001	0.00001
13:30	2606.0	1.0	3.1	403.8	15.4	15.3	**88**	**<0.31**	**<0.14**	0.018	0.018	0.00003	0.00003	0.00001	0.00001
14:00	2606.5	1.5	4.8	402.0	22.1	21.8	76			0.026	0.031	0.00004	0.00005	0.00002	0.00002
14:20	2606.9	1.9	11.9	394.9	37.1	36.0				0.042	0.048	0.00007	0.00008	0.00003	0.00003
14:40	2607.2	2.2	7.5	399.3	28.3	41.5	50			0.014	0.052	0.00008	0.00010	0.00004	0.00004
14:50	2607.4	2.4	16.6	390.2	41.5	25.3	47			0.008	0.054	0.00005	0.00011	0.00002	0.00005
15:00	2607.5	2.5	6.7	400.1	25.3	24.9				0.008	0.054	0.00005	0.00011	0.00002	0.00005
15:30	2608.0	3.0	*6.7*	400.1	*25.3*	24.9	**25**	**<0.31**	**<0.14**	0.008	0.058	0.00005	0.00014	0.00002	0.00006
11/11/2004 10:00	2627.1	3.0	7.6	399.2	21.9	21.5	<5			0.007	0.058	0.00004	0.00014	0.00002	0.00006
12:00	2629.1	5.0	*7.6*	399.2	*21.9*	21.5				0.007	0.073	0.00004	0.00022	0.00002	0.00010
Total Pounds Removed:										**TPHg =**	**165**	**Benzene =**	**0.292**	**MTBE =**	**0.064**

Abbreviations and Notes:

ACFM = Actual cubic feet per minute

SCFM = Standard cubic feet per minute.

SCFM = (ACFM) (Applied Absolute Vacuum / Atmospheric Absolute Vacuum)

ppmv = Parts per million by volume

= Pounds

TPHG, Benzene, and MTBE analyzed by EPA Method 8260 respectively from 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.
(Rate = Laboratory analytical concentration (ppmv) x wellhead flow rate (scfm) x (1lb-mole/386ft3) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE) x 60 min/hour x 1/1,000,000)

Cumulative TPHg / Benzene / MTBE removal = Previous removal rate multiplied by the hour-interval of operation plus the previous total

Italicized Hour Meter data is calculated from Date/Time data

Italicized TPHg Concentration data is field measured data

Italicized vacuum and flow data are estimates (data not collected or measurable at time).

ATTACHMENT G

Groundwater Elevation and Analytical Data

WELL CONCENTRATIONS
Shell-branded Service Station
1784 150th Avenue
San Leandro, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-1	3/8/1990	510	120	1.5	0.8	<0.5	5.4	NA	NA	NA	NA	NA	NA	NA	NA	49.13	25.29	23.84	NA	NA
MW-1	6/12/1990	390	100	86	1.3	0.7	6.2	NA	NA	NA	NA	NA	NA	NA	NA	49.13	25.85	23.28	NA	NA
MW-1	9/13/1990	100	130	56	0.75	2.4	2.8	NA	NA	NA	NA	NA	NA	NA	NA	49.13	27.49	21.64	NA	NA
MW-1	12/18/1990	480	<50	54	1.7	3.3	3.7	NA	NA	NA	NA	NA	NA	NA	NA	49.13	27.41	21.72	NA	NA
MW-1	3/7/1991	80	<50	266	<0.5	1.2	<1.5	NA	NA	NA	NA	NA	NA	NA	NA	49.13	25.79	23.34	NA	NA
MW-1	6/7/1991	510	<50	130	3.8	6.1	11	NA	NA	NA	NA	NA	NA	NA	NA	49.13	25.64	23.49	NA	NA
MW-1	9/17/1991	330	120a	67	<0.5	3.0	2.2	NA	NA	NA	NA	NA	NA	NA	NA	49.13	27.54	21.59	NA	NA
MW-1	12/9/1991	140a	80	<0.5	<0.5	1.7	4.7	NA	NA	NA	NA	NA	NA	NA	NA	49.13	27.81	21.32	NA	NA
MW-1	2/13/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	25.57	23.56	NA	NA
MW-1	2/24/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	22.83	26.30	NA	NA
MW-1	2/27/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	23.09	26.04	NA	NA
MW-1	3/1/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	49.13	23.26	25.87	NA	NA
MW-1	6/3/1992	1,500	NA	520	180	72	230	NA	NA	NA	NA	NA	NA	NA	NA	49.13	24.64	24.49	NA	NA
MW-1	9/1/1992	130	NA	16	1.4	1.8	3.4	NA	NA	NA	NA	NA	NA	NA	NA	49.13	26.74	22.39	NA	NA
MW-1	10/6/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	27.18	21.95	NA	NA
MW-1	11/11/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	27.99	21.14	NA	NA
MW-1	12/4/1992	150	NA	360	0.7	1.8	2.1	NA	NA	NA	NA	NA	NA	NA	NA	49.13	27.14	21.99	NA	NA
MW-1	1/22/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	20.09	29.04	NA	NA
MW-1	2/10/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	24.26	24.87	NA	NA
MW-1	3/3/1993	<50	NA	1.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	49.13	20.50	28.63	NA	NA
MW-1	5/11/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	21.70	27.43	NA	NA
MW-1	6/17/1993	1,600	NA	340	120	120	440	NA	NA	NA	NA	NA	NA	NA	NA	49.13	22.42	26.71	NA	NA
MW-1	9/10/1993	2,600	NA	670	340	310	730	NA	NA	NA	NA	NA	NA	NA	NA	49.13	24.11	25.02	NA	NA
MW-1	12/13/1993	11,000	NA	470	320	380	2,300	NA	NA	NA	NA	NA	NA	NA	NA	49.13	23.73	25.40	NA	NA
MW-1	3/3/1994	16,000	NA	700	690	480	3,200	NA	NA	NA	NA	NA	NA	NA	NA	49.13	22.08	27.05	NA	NA
MW-1	6/6/1994	7,500	NA	420	280	200	1,000	NA	NA	NA	NA	NA	NA	NA	NA	49.13	23.10	26.03	NA	NA
MW-1	9/12/1994	1,200	NA	110	21	3.3	420	NA	NA	NA	NA	NA	NA	NA	NA	49.13	25.19	23.94	NA	NA
MW-1	12/19/1994	4,600	NA	470	330	230	1,300	NA	NA	NA	NA	NA	NA	NA	NA	49.13	23.06	26.07	NA	NA
MW-1	2/28/1995	500	NA	59	32	6.8	68	NA	NA	NA	NA	NA	NA	NA	NA	49.13	20.90	28.23	NA	NA
MW-1	3/24/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	18.28	30.85	NA	NA
MW-1	6/26/1995	5,500	NA	740	420	300	1,800	NA	NA	NA	NA	NA	NA	NA	NA	49.13	20.40	28.73	NA	NA
MW-1	9/13/1995	84,000	NA	1,900	2,600	3,000	14,000	NA	NA	NA	NA	NA	NA	NA	NA	49.13	22.62	26.51	NA	NA
MW-1	12/19/1995	80,000	NA	660	350	170	18,000	NA	NA	NA	NA	NA	NA	NA	NA	49.13	22.10	27.03	NA	NA

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-1	3/7/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	18.83	30.34	0.05	NA
MW-1	6/28/1996	270,000	NA	2,800	820	1,000	16,000	<0.5	NA	NA	NA	NA	NA	NA	NA	49.13	21.46	27.67	NA	NA
MW-1 (D)	6/28/1996	790,000	NA	2,200	780	1,000	13,000	15,000	NA	NA	NA	NA	NA	NA	NA	49.13	21.46	27.67	NA	NA
MW-1	9/26/1996	29,000	NA	1,100	260	270	1,900	<1,000	NA	NA	NA	NA	NA	NA	NA	49.13	23.57	25.57	0.01	NA
MW-1	9/26/1996	25,000	NA	1,200	320	240	1,900	<1,000	NA	NA	NA	NA	NA	NA	NA	49.13	NA	NA	NA	NA
MW-1	12/10/1996	13,000	NA	510	240	230	1,200	100	NA	NA	NA	NA	NA	NA	NA	49.13	21.43	27.70	NA	1.0
MW-1 (D)	12/10/1996	8,400	NA	420	130	140	680	81	NA	NA	NA	NA	NA	NA	NA	49.13	21.43	27.70	NA	1.0
MW-1	3/10/1997	4,200	NA	13	8.8	16	74	<12	NA	NA	NA	NA	NA	NA	NA	49.13	20.08	29.05	NA	2.0
MW-1 (D)	3/10/1997	5,100	NA	12	8.9	17	79	<25	NA	NA	NA	NA	NA	NA	NA	49.13	20.08	29.05	NA	2.0
MW-1	6/30/1997	5,700	NA	320	120	140	700	47	NA	NA	NA	NA	NA	NA	NA	49.13	21.68	27.45	NA	1.6
MW-1 (D)	6/30/1997	5,300	NA	300	95	120	580	45	NA	NA	NA	NA	NA	NA	NA	49.13	21.68	27.45	NA	1.6
MW-1	9/12/1997	6,300	NA	120	26	82	260	30	NA	NA	NA	NA	NA	NA	NA	49.13	21.78	27.35	NA	2.1
MW-1 b	12/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.13	20.78	28.35	NA	1.3
MW-1	2/2/1998	84	NA	5.1	<0.50	<0.50	2.1	2.5	NA	NA	NA	NA	NA	NA	NA	49.13	19.65	29.48	NA	2.0
MW-1	6/24/1998	13,000	NA	3,000	260	410	1,400	<250	NA	NA	NA	NA	NA	NA	NA	49.13	19.65	29.48	NA	2.5
MW-1 (D)	6/24/1998	12,000	NA	3,800	250	47	1,400	710	NA	NA	NA	NA	NA	NA	NA	49.13	19.65	29.48	NA	2.5
MW-1	8/26/1998	3,100	NA	1,200	27	170	50	88	NA	NA	NA	NA	NA	NA	NA	49.13	20.49	28.64	NA	2.1
MW-1	12/23/1998	45,000	NA	5,300	220	1,000	3,600	970	NA	NA	NA	NA	NA	NA	NA	49.13	21.22	27.91	NA	3.8
MW-1	3/1/1999	22,300	NA	2,540	436	753	3,370	<400	NA	NA	NA	NA	NA	NA	NA	49.13	19.27	29.86	NA	1.8
MW-1	6/14/1999	18,800	NA	6,820	210	436	958	1,360	NA	NA	NA	NA	NA	NA	NA	49.13	20.80	28.33	NA	2.2
MW-1	9/28/1999	21,500	NA	7,470	281	467	927	1,800	NA	NA	NA	NA	NA	NA	NA	49.13	22.55	26.58	NA	2.0
MW-1	12/8/1999	22,300	NA	6,140	135	256	367	232	NA	NA	NA	NA	NA	NA	NA	49.13	23.12	26.01	NA	2.1
MW-1	3/14/2000	6,690	NA	1,880	63.5	134	307	460	NA	NA	NA	NA	NA	NA	NA	49.13	18.87	30.26	NA	2.3
MW-1	6/28/2000	8,080	NA	2,690	85.1	149	514	701	NA	NA	NA	NA	NA	NA	NA	49.13	21.12	28.01	NA	2.4
MW-1	9/6/2000	17,800	NA	7,390	212	329	1,270	<1,000	NA	NA	NA	NA	NA	NA	NA	49.13	21.90	27.23	NA	3.0
MW-1	12/14/2000	8,900	NA	4,870	79.2	106	370	1,840	673*	NA	NA	NA	NA	NA	NA	49.13	22.60	26.53	NA	2.0
MW-1	3/5/2001	7,520	NA	2,120	66.0	107	129	668	NA	NA	NA	NA	NA	NA	NA	49.13	20.06	29.07	NA	0.4
MW-1	6/11/2001	30,000	NA	7,400	390	600	2,300	NA	170	NA	NA	NA	NA	NA	NA	49.13	22.39	26.74	NA	1.6
MW-1	9/12/2001	23,000	NA	7,500	120	280	910	NA	320	NA	NA	NA	NA	NA	NA	49.13	23.37	25.76	NA	2.2
MW-1	12/27/2001	16,000	NA	2,400	190	330	1,500	NA	350	NA	NA	NA	NA	NA	NA	49.13	20.97	28.16	NA	1.3
MW-1	2/27/2002	26,000	NA	6,100	330	510	2,000	NA	210	NA	NA	NA	NA	NA	NA	49.10	20.47	28.63	NA	1.3
MW-1	6/18/2002	29,000	NA	8,100	280	510	1,800	NA	140	NA	NA	NA	NA	NA	NA	49.10	21.99	27.11	NA	2.2
MW-1	9/18/2002	34,000	NA	5,900	350	700	3,000	NA	<250	NA	NA	NA	NA	NA	NA	49.10	23.21	25.89	NA	0.8

WELL CONCENTRATIONS
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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-1	12/27/2002	7,500	NA	1,200	30	120	410	NA	230	<5.0	<5.0	<5.0	310	31	<5.0	49.10	20.10	29.00	NA	0.6
MW-1	3/5/2003	17,000	NA	1,600	88	400	1,400	NA	230	NA	NA	<10	290	<10	NA	49.10	21.05	28.05	NA	1.7
MW-1	6/24/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49.10	NA	NA	NA	NA
MW-1	6/25/2003	14,000	NA	5,300	250	440	2,100	NA	100	NA	NA	<200	<500	<50	NA	49.10	21.93	27.17	NA	0.9
MW-1	9/25/2003	33,000	NA	7,700	250	860	3,400	NA	130	NA	NA	<200	<500	<50	NA	49.10	23.21	25.89	NA	1.7
MW-1	12/15/2003	63,000	NA	14,000	360	1,300	3,900	NA	150	NA	NA	<400	<1000	<100	NA	49.10	22.08	27.02	NA	1.5
MW-1	3/4/2004	28,000	NA	8,000	180	640	2,100	NA	79	NA	NA	<200	<500	<50	NA	49.10	19.85	29.25	NA	0.2
MW-1	5/27/2004	33,000	NA	8,700	260	840	2,700	NA	81	NA	NA	<200	<500	<50	NA	49.10	22.15	26.95	NA	0.2
MW-1	9/24/2004	26,000	NA	5,700	210	830	2,900	NA	<50	<200	<200	<200	<500	<50	<50	49.10	23.69	25.41	NA	1.5
MW-1	11/22/2004	100,000	NA	2,500	920	4,100	22,000	NA	130	NA	NA	<200	<500	<50	NA	49.10	23.19	25.91	NA	NA
MW-1	3/2/2005	110,000	NA	1,300	670	4,000	23,000	NA	87	NA	NA	<100	<500	<25	NA	49.10	19.35	29.75	NA	NA
MW-1	**6/30/2005**	**94,000**	**NA**	**6,500**	**1,100**	**3,900**	**21,000**	**NA**	**900**	**NA**	**NA**	**<1,000**	**<2,500**	**<250**	**NA**	**49.10**	**20.64**	**28.46**	**NA**	**0.6**
MW-2	2/13/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	22.22	23.61	NA	NA
MW-2	2/24/1992	17,000	2,700a	6,200	1,600	550	1,900	NA	NA	NA	NA	NA	NA	NA	NA	45.83	19.61	26.22	NA	NA
MW-2	2/27/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	19.92	25.91	NA	NA
MW-2	3/1/1992	86,000	1,000a	30,000	34,000	2,300	16,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	21.11	24.72	NA	NA
MW-2	6/3/1992	87,000	NA	28,000	18,000	2,000	10,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	21.58	24.25	NA	NA
MW-2	9/1/1992	110,000	NA	21,000	13,000	1,900	7,800	NA	NA	NA	NA	NA	NA	NA	NA	45.83	23.46	22.37	NA	NA
MW-2	10/6/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	23.99	21.84	NA	NA
MW-2	11/11/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	24.25	21.58	NA	NA
MW-2	12/4/1992	42,000	NA	15,000	2,400	960	2,900	NA	NA	NA	NA	NA	NA	NA	NA	45.83	23.89	21.94	NA	NA
MW-2	1/22/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.03	28.80	NA	NA
MW-2	2/10/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	18.08	27.75	NA	NA
MW-2	3/3/1993	160,000	NA	36,000	3,800	32,000	21,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.28	28.55	NA	NA
MW-2 (D)	3/3/1993	150,000	NA	31,000	3,100	20,000	14,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.28	28.55	NA	NA
MW-2	5/11/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	18.41	27.42	NA	NA
MW-2	6/17/1993	65,000	NA	34,000	15,000	3,200	11,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	19.06	26.77	NA	NA
MW-2 (D)	6/17/1993	62,000	NA	28,000	14,000	2,700	10,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	19.06	26.77	NA	NA
MW-2	9/10/1993	72,000	NA	24,000	16,000	2,300	11,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	20.88	24.95	NA	NA
MW-2 (D)	9/10/1993	71,000	NA	23,000	15,000	2,300	10,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	20.88	24.95	NA	NA
MW-2	12/13/1993	19,000	NA	5,400	4,900	680	3,100	NA	NA	NA	NA	NA	NA	NA	NA	45.83	20.42	25.41	NA	NA
MW-2 (D)	12/13/1993	17,000	NA	6,200	5,500	720	3,500	NA	NA	NA	NA	NA	NA	NA	NA	45.83	20.42	25.41	NA	NA

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-2	3/3/1994	110,000	NA	21,000	24,000	2,000	13,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	18.48	27.35	NA	NA
MW-2 (D)	3/3/1994	93,000	NA	19,000	22,000	1,800	12,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	18.48	27.35	NA	NA
MW-2	6/6/1994	10,000	NA	1,900	3,300	2,500	13,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	20.26	25.57	NA	NA
MW-2 (D)	6/6/1994	99,000	NA	9,900	12,000	2,400	12,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	20.26	25.57	NA	NA
MW-2	9/12/1994	160,000	NA	22,000	33,000	3,400	23,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	21.80	24.03	NA	NA
MW-2 (D)	9/12/1994	150,000	NA	23,000	34,000	3,500	23,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	21.80	24.03	NA	NA
MW-2	12/19/1994	80,000	NA	17,000	16,000	2,300	14,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	19.66	26.17	NA	NA
MW-2 (D)	12/19/1994	100,000	NA	28,000	26,000	3,400	20,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	19.66	26.17	NA	NA
MW-2	2/28/1995	100,000	NA	24,000	18,000	2,300	17,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.51	28.32	NA	NA
MW-2 (D)	2/28/1995	100,000	NA	31,000	21,000	3,200	18,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.51	28.32	NA	NA
MW-2	3/24/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	14.88	30.95	NA	NA
MW-2	6/26/1995	45,000	NA	14,000	12,000	1,500	7,500	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.58	28.25	NA	NA
MW-2 (D)	6/26/1995	68,000	NA	13,000	11,000	1,800	7,700	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.58	28.25	NA	NA
MW-2	9/13/1995	110,000	NA	19,000	19,000	2,800	15,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	19.28	26.55	NA	NA
MW-2 (D)	9/13/1995	120,000	NA	20,000	20,000	2,900	15,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	19.28	26.55	NA	NA
MW-2	12/19/1995	180,000	NA	18,000	29,000	4,100	24,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	18.61	27.22	NA	NA
MW-2 (D)	12/19/1995	160,000	NA	18,000	28,000	3,800	24,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	18.61	27.22	NA	NA
MW-2	3/6/1996	120,000	NA	28,000	15,000	3,900	17,000	NA	NA	NA	NA	NA	NA	NA	NA	45.83	15.41	30.42	NA	NA
MW-2	6/28/1996	96,000	NA	20,000	20,000	4,100	22,000	2,400	NA	NA	NA	NA	NA	NA	NA	45.83	17.84	27.99	NA	NA
MW-2	9/26/1996	87,000	NA	7,600	11,000	2,500	15,000	990	840	NA	NA	NA	NA	NA	NA	45.83	19.60	26.23	NA	NA
MW-2	12/10/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	18.15	27.88	0.25	NA
MW-2	3/10/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.02	28.97	0.20	NA
MW-2	6/30/1997	57,000	NA	3,600	4,600	1,300	9,700	2,300	NA	NA	NA	NA	NA	NA	NA	45.83	19.42	26.41	NA	2.4
MW-2	9/12/1997	88,000	NA	7,800	8,800	2,600	16,000	3,200	NA	NA	NA	NA	NA	NA	NA	45.83	19.40	26.43	NA	1.7
MW-2 (D)	9/12/1997	90,000	NA	8,300	9,400	2,700	17,000	3,400	NA	NA	NA	NA	NA	NA	NA	45.83	19.40	26.43	NA	1.7
MW-2 b	12/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.83	17.56	28.27	NA	1.3
MW-2	2/2/1998	<50	NA	0.6	1.9	0.93	6.0	9.3	NA	NA	NA	NA	NA	NA	NA	45.83	18.14	27.69	NA	2
MW-2 (D)	2/2/1998	56	NA	1.0	2.8	1.4	9.3	13	NA	NA	NA	NA	NA	NA	NA	45.83	18.14	27.69	NA	2
MW-2	6/24/1998	20,000	NA	<200	620	560	4,500	<1,000	NA	NA	NA	NA	NA	NA	NA	45.83	16.08	29.75	NA	2.4
MW-2	8/26/1998	22,000	NA	380	1,100	560	4,400	330	NA	NA	NA	NA	NA	NA	NA	45.83	19.25	26.58	NA	NA
MW-2 (D)	8/26/1998	11,000	NA	180	130	290	500	1,400	NA	NA	NA	NA	NA	NA	NA	45.83	19.25	26.58	NA	NA
MW-2	12/23/1998	100,000	NA	4,100	6,500	2,400	16,000	<500	NA	NA	NA	NA	NA	NA	NA	45.83	18.29	27.54	NA	3.8
MW-2	3/1/1999	50,800	NA	3,910	7,480	1,890	13,100	9,620	NA	NA	NA	NA	NA	NA	NA	45.83	22.81	23.02	NA	2.0

WELL CONCENTRATIONS
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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-2	6/14/1999	4,930	NA	128	270	139	1,040	2,200	2,540*	NA	NA	NA	NA	NA	NA	45.83	18.86	26.97	NA	1.6
MW-2	9/28/1999	16,200	NA	647	1,070	542	4,130	5,320	4,790	NA	NA	NA	NA	NA	NA	45.83	21.41	24.42	NA	1.8
MW-2	12/8/1999	25,700	NA	1,670	2,110	977	6,600	6,190	5,970	NA	NA	NA	NA	NA	NA	45.83	21.89	23.94	NA	1.8
MW-2	3/14/2000	45,100	NA	2,070	4,710	1,920	12,800	16,700	18,300*	NA	NA	NA	NA	NA	NA	45.83	15.57	30.26	NA	2.0
MW-2	6/28/2000	52,100	NA	5,150	4,200	1,880	13,300	15,500	13,500*	NA	NA	NA	NA	NA	NA	45.83	17.79	28.04	NA	1.9
MW-2	9/6/2000	39,500	NA	4,490	3,290	2,100	14,000	18,500	9,060*	NA	NA	NA	NA	NA	NA	45.83	18.65	27.18	NA	3.5
MW-2	12/14/2000	209	NA	3.51	1.11	1.00	64.4	79.4	NA	NA	NA	NA	NA	NA	NA	45.83	19.00	26.83	NA	1.5
MW-2	3/5/2001	38,200	NA	2,010	927	1,250	8,300	13,100	15,400	NA	NA	NA	NA	NA	NA	45.83	16.66	29.17	NA	1.0
MW-2	6/11/2001	50,000	NA	4,400	2,200	1,800	11,000	NA	26,000	NA	NA	NA	NA	NA	NA	45.83	18.93	26.90	NA	1.7
MW-2	9/12/2001	59,000	NA	6,100	2,800	2,300	14,000	NA	21,000	NA	NA	NA	NA	NA	NA	45.83	19.85	25.98	NA	1.6
MW-2	12/27/2001	74,000	NA	8,600	2,500	2,500	17,000	NA	25,000	NA	NA	NA	NA	NA	NA	45.83	17.85	27.98	NA	2.6
MW-2	2/27/2002	70,000	NA	8,100	2,600	2,100	13,000	NA	32,000	NA	NA	NA	NA	NA	NA	45.79	17.15	28.64	NA	2.0
MW-2	6/18/2002	72,000	NA	9,500	3,000	2,200	13,000	NA	29,000	NA	NA	NA	NA	NA	NA	45.79	18.49	27.30	NA	0.6
MW-2	9/18/2002	48,000	NA	7,600	850	1,300	6,300	NA	8,700	NA	NA	NA	NA	NA	NA	45.79	19.95	25.84	NA	1.0
MW-2	12/27/2002	40,000	NA	5,900	1,200	1,400	7,800	NA	19,000	<50	<50	55	10,000	<50	<50	45.79	16.71	29.08	NA	1.0
MW-2	3/5/2003	62,000	NA	13,000	1,400	2,000	7,900	NA	21,000	NA	NA	<50	10,000	<50	NA	45.79	17.72	28.07	NA	1.4
MW-2	6/24/2003	19,000	NA	9,500	530	700	2,900	NA	14,000	NA	NA	<400	6,000	<100	NA	45.79	18.30	27.49	NA	1.4
MW-2	9/25/2003	65,000	NA	24,000	1,500	2,400	9,700	NA	19,000	NA	NA	<1,000	6,400	<250	NA	45.79	20.05	25.74	NA	1.3
MW-2	12/15/2003	67,000	NA	18,000	1,800	1,900	7,200	NA	11,000	NA	NA	<400	3,700	<100	NA	45.79	18.80	26.99	NA	0.1
MW-2	3/4/2004	72,000	NA	27,000	1,200	2,100	7,600	NA	13,000	NA	NA	<400	6,800	<100	NA	45.79	16.75	29.04	NA	0.2
MW-2	5/27/2004	74,000	NA	6,000	2,000	2,500	15,000	NA	19,000	NA	NA	<400	8,500	<100	NA	45.79	18.85	26.94	NA	0.8
MW-2	9/24/2004	<100	NA	<1.0	<1.0	<1.0	<2.0	NA	130	<4.0	<4.0	<4.0	46	19	<1.0	45.79	16.10	29.69	NA	5.1
MW-2	11/22/2004	8,800	NA	1,200	230	350	1,900	NA	2,200	NA	NA	<40	1,300	<10	NA	45.79	19.83	25.96	NA	0.3
MW-2	3/2/2005	960	NA	150	21	30	220	NA	630	NA	NA	<10	460	<2.5	NA	45.79	15.90	29.89	NA	0.5
MW-2	**6/30/2005**	**970**	**NA**	**130**	**19**	**27**	**210**	**NA**	**320 e**	**NA**	**NA**	**<2.0**	**220**	**0.98**	**NA**	**45.79**	**17.14**	**28.65**	**NA**	**0.7**
MW-3	2/13/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	27.97	24.00	NA	NA
MW-3	2/24/1992	4,500	1,300a	97	<5	78	18	NA	NA	NA	NA	NA	NA	NA	NA	51.97	25.60	26.37	NA	NA
MW-3	2/27/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	25.88	26.09	NA	NA
MW-3	3/1/1992	2,200	440	69	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	26.00	25.97	NA	NA
MW-3	6/3/1992	4,100	NA	13	72	44	65	NA	NA	NA	NA	NA	NA	NA	NA	51.97	27.70	24.27	NA	NA
MW-3	9/1/1992	1,900	NA	20	6.8	5.5	<5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	29.46	22.51	NA	NA
MW-3 (D)	9/1/1992	1,900	NA	21	6.6	3.4	<5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	29.46	22.51	NA	NA
MW-3	10/6/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	30.01	21.96	NA	NA

WELL CONCENTRATIONS
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MW-3	11/11/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	30.26	21.71	NA	NA
MW-3	12/4/1992	2,400	NA	8.2	<5	<5	<5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	29.93	22.04	NA	NA
MW-3 (D)	12/4/1992	2,100	NA	11	<0.5	5.7	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	29.93	22.04	NA	NA
MW-3	1/22/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	22.76	29.21	NA	NA
MW-3	2/10/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	21.40	30.57	NA	NA
MW-3	3/3/1993	5,100	NA	63	61	75	150	NA	NA	NA	NA	NA	NA	NA	NA	51.97	23.08	28.89	NA	NA
MW-3	5/11/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	24.51	27.46	NA	NA
MW-3	6/17/1993	4,000	NA	94	140	82	150	NA	NA	NA	NA	NA	NA	NA	NA	51.97	25.21	26.76	NA	NA
MW-3	9/10/1993	3,200	NA	140	12.5	12.5	12.5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	26.95	25.02	NA	NA
MW-3	12/13/1993	6,200	NA	<12.5	<12.5	<12.5	<12.5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	26.52	25.45	NA	NA
MW-3	3/3/1994	4,500	NA	73	<5	<5	<5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	24.50	27.47	NA	NA
MW-3	6/6/1994	3,200	NA	<0.5	<0.5	3.1	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	26.33	25.64	NA	NA
MW-3	9/12/1994	3,900	NA	<0.5	<0.5	9.6	4.1	NA	NA	NA	NA	NA	NA	NA	NA	51.97	27.98	23.99	NA	NA
MW-3	12/19/1994	2,400	NA	21	22	4.2	2.6	NA	NA	NA	NA	NA	NA	NA	NA	51.97	25.63	26.34	NA	NA
MW-3	2/28/1995	4,000	NA	58	<0.5	7.1	3.5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	23.45	28.52	NA	NA
MW-3	3/24/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	21.07	30.90	NA	NA
MW-3	6/26/1995	3,900	NA	8.1	<0.5	12	2.4	NA	NA	NA	NA	NA	NA	NA	NA	51.97	23.64	28.33	NA	NA
MW-3	9/13/1995	4,100	NA	58	5.5	5.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	51.97	25.40	26.57	NA	NA
MW-3	12/19/1995	3,600	NA	<0.5	4.3	2.1	1.1	NA	NA	NA	NA	NA	NA	NA	NA	51.97	24.53	27.44	NA	NA
MW-3	3/7/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	21.59	30.41	0.04	NA
MW-3	6/28/1996	2,400	NA	55	<0.5	<0.5	11	120	NA	NA	NA	NA	NA	NA	NA	51.97	23.95	28.02	NA	NA
MW-3	9/26/1996	2,500	NA	<5.0	<5.0	<5.0	<5.0	160	NA	NA	NA	NA	NA	NA	NA	51.97	25.89	26.08	NA	NA
MW-3	12/10/1996	1,600	NA	28	4.2	<2.0	3.9	110	NA	NA	NA	NA	NA	NA	NA	51.97	24.22	27.75	NA	0.8
MW-3	3/10/1997	130	NA	<0.50	<0.50	<0.50	1.4	4.2	NA	NA	NA	NA	NA	NA	NA	51.97	23.05	28.92	NA	2.8
MW-3	6/30/1997	1,200	NA	21	2.3	<2.0	<2.0	69	NA	NA	NA	NA	NA	NA	NA	51.97	24.34	27.63	NA	2.3
MW-3	9/12/1997	440	NA	8.3	0.82	<0.50	1.9	3.4	NA	NA	NA	NA	NA	NA	NA	51.97	24.47	27.50	NA	1.9
MW-3 b	12/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.97	23.54	28.43	NA	0.8
MW-3	2/2/1998	400	NA	9.3	0.68	<0.50	<0.50	9	NA	NA	NA	NA	NA	NA	NA	51.97	21.92	30.05	NA	1.5
MW-3	6/24/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	NA	51.97	22.35	29.62	NA	1.9
MW-3	8/26/1998	140	NA	7.4	<0.50	<0.50	2.5	13	NA	NA	NA	NA	NA	NA	NA	51.97	23.45	28.52	NA	1.3
MW-3	12/23/1998	1,200	NA	50	<2.0	<2.0	<2.0	69	NA	NA	NA	NA	NA	NA	NA	51.97	24.01	27.96	NA	4.2
MW-3	3/1/1999	2,550	NA	<0.500	<0.500	<0.500	0.658	32.4	NA	NA	NA	NA	NA	NA	NA	51.97	22.08	29.89	NA	2.0
MW-3	6/14/1999	514	NA	18.1	0.728	<0.500	<0.500	15.9	NA	NA	NA	NA	NA	NA	NA	51.97	23.15	28.82	NA	1.7

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MW-3	9/28/1999	1,180	NA	<1.00	<1.00	<1.00	<1.00	<10.0	NA	NA	NA	NA	NA	NA	NA	51.97	25.36	26.61	NA	1.2
MW-3	12/8/1999	1,740	NA	71.5	23.0	24.2	61.3	103	NA	NA	NA	NA	NA	NA	NA	51.97	25.75	26.22	NA	2.0
MW-3	3/14/2000	1,410	NA	5.63	35.6	<5.00	8.41	38.7	NA	NA	NA	NA	NA	NA	NA	51.97	21.64	30.33	NA	2.1
MW-3	6/28/2000	2,460	NA	<5.00	9.48	<5.00	28.4	64.0	NA	NA	NA	NA	NA	NA	NA	51.97	23.84	28.13	NA	2.87
MW-3	9/6/2000	887	NA	<1.00	<1.00	<1.00	<1.00	<10.0	NA	NA	NA	NA	NA	NA	NA	51.97	24.73	27.24	NA	2.0
MW-3	12/14/2000	955	NA	25.4	1.96	<0.500	1.13	10.2	NA	NA	NA	NA	NA	NA	NA	51.97	25.45	26.52	NA	2.1
MW-3	3/5/2001	2,100	NA	4.90	56.5	<2.00	3.62	261	NA	NA	NA	NA	NA	NA	NA	51.97	22.83	29.14	NA	0.8
MW-3	6/11/2001	2,000	NA	1.0	<0.50	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	51.97	25.20	26.77	NA	0.7
MW-3	9/12/2001	1,500	NA	0.50	0.54	<0.50	1.8	NA	<5.0	NA	NA	NA	NA	NA	NA	51.97	26.15	25.82	NA	1.5
MW-3	12/27/2001	2,100	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	51.97	23.67	28.30	NA	1.9
MW-3	2/27/2002	2,300	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	51.92	23.23	28.69	NA	1.5
MW-3	6/18/2002	2,000	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	51.92	24.74	27.18	NA	2.0
MW-3	9/18/2002	2,600	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	51.92	26.05	25.87	NA	1.4
MW-3	12/27/2002	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.92	NA	NA	NA	NA
MW-3	3/5/2003	2,300	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	<2.0	<50	13	NA	51.92	23.84	28.08	NA	1.3
MW-3	6/24/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.92	NA	NA	NA	NA
MW-3	6/25/2003	1,800 c	NA	0.71	<0.50	<0.50	<1.0	NA	0.54	NA	NA	<2.0	<5.0	1.1	NA	51.92	24.48	27.44	NA	1.3
MW-3	9/25/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.92	25.99	25.93	NA	NA
MW-3	12/15/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.92	24.94	26.98	NA	NA
MW-3	3/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.92	22.50	29.42	NA	NA
MW-3	5/27/2004	2,500	NA	<0.50	<0.50	<0.50	<1.0	NA	1.1	NA	NA	<2.0	<5.0	0.82	NA	51.92	24.94	26.98	NA	0.5
MW-3	9/24/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.92	26.55	25.37	NA	NA
MW-3	11/22/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.92	25.92	26.00	NA	NA
MW-3	3/2/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.92	22.12	29.80	NA	NA
MW-3	**6/30/2005**	**3,700**	**NA**	**<2.0**	**2.4**	**<2.0**	**<4.0**	**NA**	**<2.0**	**<8.0**	**<8.0**	**<8.0**	**<20**	**<2.0**	**NA**	**51.92**	**23.31**	**28.61**	**NA**	**1.2**
MW-4	3/24/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	40.51	9.16	31.35	NA	NA
MW-4	6/26/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	40.51	12.06	28.45	NA	NA
MW-4	9/13/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	40.51	13.90	26.61	NA	NA
MW-4	12/19/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	40.51	12.90	27.61	NA	NA
MW-4	3/6/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	40.51	9.63	30.88	NA	NA
MW-4	6/28/1996	40	NA	<0.5	0.59	0.97	3.8	26	NA	NA	NA	NA	NA	NA	NA	40.51	12.30	28.21	NA	NA
MW-4	9/26/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	14.12	26.39	NA	NA

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MW-4	12/10/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	12.31	28.20	NA	1.2
MW-4	3/10/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	11.34	29.17	NA	NA
MW-4	6/30/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	13.80	26.71	NA	1.9
MW-4	9/12/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	13.99	26.52	NA	1.7
MW-4 b	12/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.51	12.02	28.49	NA	1.8
MW-4	2/2/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	11.23	29.28	NA	1
MW-4	6/24/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	10.58	29.93	NA	1.9
MW-4	8/26/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	11.75	28.76	NA	1.2
MW-4	12/23/1998	<50	NA	0.60	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	NA	40.51	12.41	28.10	NA	4.2
MW-4	3/1/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.00	NA	NA	NA	NA	NA	NA	NA	40.51	10.38	30.13	NA	2.1
MW-4	6/14/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	NA	40.51	11.91	28.60	NA	2.4
MW-4	9/28/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	NA	NA	40.51	10.19	30.32	NA	2.2
MW-4	12/8/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	NA	40.51	10.67	29.84	NA	1.8
MW-4	3/14/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	NA	40.51	9.95	30.56	NA	2.5
MW-4	6/28/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	NA	40.51	12.22	28.29	NA	0.9
MW-4	9/6/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.51	13.17	27.34	NA	3.0
MW-4	12/14/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.51	8.65	31.86	NA	NA
MW-4	3/5/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.51	11.07	29.44	NA	NA
MW-4	6/11/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	40.51	13.62	26.89	NA	1.3
MW-4	9/12/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.51	14.61	25.90	NA	NA
MW-4	12/27/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.51	12.19	28.32	NA	NA
MW-4	2/27/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	11.64	28.81	NA	NA
MW-4	6/18/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	40.45	13.22	27.23	NA	0.6
MW-4	9/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	14.46	25.99	NA	NA
MW-4	12/27/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	11.23	29.22	NA	NA
MW-4	3/5/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	12.22	28.23	NA	NA
MW-4	6/24/2003	57 c	NA	<0.50	<0.50	<0.50	<1.0	NA	12	NA	NA	NA	NA	NA	NA	40.45	12.79	27.66	NA	1.6
MW-4	9/25/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	14.45	26.00	NA	NA
MW-4	12/15/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	13.24	27.21	NA	NA
MW-4	3/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	10.93	29.52	NA	NA
MW-4	5/27/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	40.45	13.42	27.03	NA	0.5
MW-4	9/24/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	15.11	25.34	NA	NA
MW-4	11/22/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	14.42	26.03	NA	NA

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-4	3/2/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.45	10.17	30.28	NA	NA
MW-4	**6/30/2005**	**<50 d**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**<0.50**	**<2.0**	**<2.0**	**<2.0**	**<5.0**	**NA**	**NA**	**40.45**	**11.60**	**28.85**	**NA**	**0.8**
MW-5	1/29/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.46	12.82	28.64	NA	NA
MW-5	2/27/2002	190	NA	<0.50	<0.50	0.85	1.5	NA	<5.0	NA	NA	NA	NA	NA	NA	41.46	12.85	28.61	NA	1.9
MW-5	6/18/2002	650	NA	1.4	3.0	52	28	NA	<0.50	NA	NA	NA	NA	NA	NA	41.46	13.65	27.81	NA	0.8
MW-5	9/18/2002	390	NA	0.72	0.51	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	41.46	15.57	25.89	NA	1.1
MW-5	12/27/2002	380	NA	<0.50	<0.50	0.56	<0.50	NA	<0.50	<2.0	<2.0	<2.0	<50	<2.0	<2.0	41.46	12.51	28.95	NA	1.9
MW-5	3/5/2003	290	NA	<0.50	1.7	9.4	22	NA	<5.0	NA	NA	NA	NA	NA	NA	41.46	13.39	28.07	NA	2.6
MW-5	6/24/2003	220	NA	<0.50	1.0	19	1.3	NA	<0.50	NA	NA	NA	NA	NA	NA	41.46	13.91	27.55	NA	1.7
MW-5	9/25/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.46	15.58	25.88	NA	2.1
MW-5	12/15/2003	200 c	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.46	14.45	27.01	NA	0.21
MW-5	3/4/2004	170 c	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.46	12.52	28.94	NA	0.1
MW-5	5/27/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.46	14.49	26.97	NA	0.5
MW-5	9/24/2004	<50	NA	0.71	<0.50	<0.50	<1.0	NA	<0.50	<2.0	<2.0	<2.0	<5.0	NA	NA	41.46	16.08	25.38	NA	1.7
MW-5	11/22/2004	<50 d	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.46	15.48	25.98	NA	0.3
MW-5	3/2/2005	190	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<2.0	<10	<0.50	NA	41.46	11.52	29.94	NA	0.4
MW-5	**6/30/2005**	**3,200**	**NA**	**<5.0**	**25**	**200**	**270**	**NA**	**<5.0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**41.46**	**12.33**	**29.13**	**NA**	**0.9**
MW-6	1/29/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.50	3.88	37.62	NA	NA
MW-6	1/31/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.50	12.43	29.07	NA	NA
MW-6	2/27/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	41.50	12.82	28.68	NA	4.1
MW-6	6/18/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	41.50	4.26	37.24	NA	3.9
MW-6	9/18/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	41.50	5.26	36.24	NA	4.2
MW-6	12/27/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<2.0	<2.0	<2.0	<50	<2.0	<2.0	41.50	12.11	29.39	NA	3.0
MW-6	3/5/2003	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	41.50	13.47	28.03	NA	4.9
MW-6	6/24/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.50	13.71	27.79	NA	5.8
MW-6	9/25/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.50	NA	NA	NA	NA
MW-6	12/15/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.50	13.17	28.33	NA	5.7
MW-6	3/4/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.50	11.15	30.35	NA	1.0
MW-6	5/27/2004	<50	NA	0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.50	13.68	27.82	NA	1.0
MW-6	9/24/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.50	10.71	30.79	NA	3.1
MW-6	11/22/2004	<50 d	NA	0.65	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.50	7.60	33.90	NA	6.5

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-6	3/2/2005	<100	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<2.0	<10	<0.50	NA	41.50	6.77	34.73	NA	6.2
MW-6	**6/30/2005**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**41.50**	**12.87**	**28.63**	**NA**	**1.2**
MW-7	10/21/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44.45	18.90	25.55	NA	NA
MW-7	12/27/2002	49,000	NA	830	980	2,000	5,200	NA	<10	<10	<10	<10	<100	<10	<10	44.45	15.43	29.02	NA	2.1
MW-7	3/5/2003	32,000	NA	370	490	1,600	2,900	NA	<100	NA	NA	NA	NA	NA	NA	44.45	16.34	28.11	NA	2.6
MW-7	6/24/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44.45	NA	NA	NA	NA
MW-7	9/25/2003	8,700	NA	57	34	450	290	NA	<5.0	NA	NA	NA	NA	NA	NA	44.45	18.36	26.09	NA	1.2
MW-7	12/15/2003	27,000	NA	170	260	1,200	1,500	NA	<10	NA	NA	NA	NA	NA	NA	44.45	17.44	27.01	NA	1.3
MW-7	3/4/2004	13,000	NA	200	190	1,200	1,200	NA	<5.0	NA	NA	NA	NA	NA	NA	44.45	15.45	29.00	NA	0.1
MW-7	5/27/2004	16,000	NA	76	56	860	420	NA	<5.0	NA	NA	NA	NA	NA	NA	44.45	17.50	26.95	NA	0.5
MW-7	9/24/2004	8,400	NA	26	14	340	200	NA	<5.0	<20	<20	<20	<50	NA	NA	44.45	18.94	25.51	NA	1.1
MW-7	11/22/2004	14,000	NA	92	60	790	730	NA	<5.0	NA	NA	NA	NA	NA	NA	44.45	18.47	25.98	NA	0.2
MW-7	3/2/2005	13,000	NA	130	140	740	980	NA	<10	NA	NA	<20	<100	<5.0	NA	44.45	14.53	29.92	NA	0.7
MW-7	**6/30/2005**	**9,900**	**NA**	**27**	**48**	**380**	**520**	**NA**	**<10**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**44.45**	**15.92**	**28.53**	**NA**	**0.9**
MW-8	10/21/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43.27	17.70	25.57	NA	NA
MW-8	12/27/2002	30,000	NA	280	220	2,000	5,300	NA	<10	<10	<10	<10	<100	<10	<10	43.27	14.25	29.02	NA	1.2
MW-8	3/5/2003	30,000	NA	220	150	2,100	4,200	NA	<100	NA	NA	NA	NA	NA	NA	43.27	15.36	27.91	NA	1.3
MW-8	6/24/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43.27	NA	NA	NA	NA
MW-8	9/25/2003	26,000	NA	240	53	1,600	2,600	NA	<50	NA	NA	NA	NA	NA	NA	43.27	17.43	25.84	NA	1.0
MW-8	12/15/2003	38,000	NA	290	140	2,200	5,200	NA	<13	NA	NA	NA	NA	NA	NA	43.27	16.24	27.03	NA	0.4
MW-8	3/4/2004	19,000	NA	180	95	1,400	3,900	NA	<13	NA	NA	NA	NA	NA	NA	43.27	14.63	28.64	NA	0.1
MW-8	5/27/2004	19,000	NA	230	41	1,100	2,200	NA	<13	NA	NA	NA	NA	NA	NA	43.27	16.41	26.86	NA	0.5
MW-8	9/24/2004	21,000	NA	270	42	1,200	2,600	NA	<13	<50	<50	<50	<130	NA	NA	43.27	18.10	25.17	NA	0.7
MW-8	11/22/2004	24,000	NA	200	64	1,400	4,100	NA	<13	NA	NA	NA	NA	NA	NA	43.27	17.28	25.99	NA	1.0
MW-8	3/2/2005	16,000	NA	100	44	890	2,300	NA	<10	NA	NA	<20	<100	<5.0	NA	43.27	13.35	29.92	NA	0.6
MW-8	**6/30/2005**	**19,000**	**NA**	**110**	**41**	**700**	**2,100**	**NA**	**<10**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**43.27**	**14.91**	**28.36**	**NA**	**0.8**
MW-9	12/10/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.65	15.15	26.50	NA	NA
MW-9	12/15/2003	<50	NA	<0.50	<0.50	<0.50	1.3	NA	2.5	NA	NA	NA	NA	NA	NA	41.65	14.48	27.17	NA	0.9
MW-9	3/4/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.65	12.15	29.50	NA	0.2
MW-9	5/27/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.65	14.55	27.10	NA	0.5

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-9	9/24/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	<2.0	<2.0	<2.0	<5.0	NA	NA	41.65	16.37	25.28	NA	1.0
MW-9	11/22/2004	<50 d	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	NA	41.65	15.62	26.03	NA	0.3
MW-9	3/2/2005	100	NA	<0.50	<1.0	1.4	3.8	NA	<1.0	NA	NA	<2.0	<10	<0.50	NA	41.65	11.40	30.25	NA	0.4
MW-9	**6/30/2005**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**41.65**	**12.70**	**28.95**	**NA**	**1.3**
MW-10	12/10/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50.64	24.33	26.31	NA	NA
MW-10	12/15/2003	6,400	NA	3.1	<1.0	33	20	NA	<1.0	NA	NA	<4.0	<10	<1.0	NA	50.64	23.58	27.06	NA	0.3
MW-10	3/4/2004	1,400	NA	1.2	<1.0	16	3.4	NA	<1.0	NA	NA	<4.0	<10	<1.0	NA	50.64	21.20	29.44	NA	0.1
MW-10	5/27/2004	810	NA	<1.0	<1.0	8.3	<2.0	NA	<1.0	NA	NA	<4.0	<10	<1.0	NA	50.64	23.63	27.01	NA	0.5
MW-10	9/24/2004	790	NA	1.2	<1.0	7.3	<2.0	NA	<1.0	<4.0	<4.0	<4.0	<10	<1.0	<1.0	50.64	25.30	25.34	NA	1.5
MW-10	11/22/2004	1,100	NA	1.1	<0.50	17	<1.0	NA	<0.50	NA	NA	<2.0	<5.0	<0.50	NA	50.64	24.62	26.02	NA	0.4
MW-10	3/2/2005	920	NA	0.60	<1.0	3.5	<1.0	NA	<1.0	NA	NA	<2.0	<10	<0.50	NA	50.64	20.72	29.92	NA	0.4
MW-10	**6/30/2005**	**470 f**	**NA**	**<0.50**	**<0.50**	**1.4**	**<1.0**	**NA**	**<0.50**	**NA**	**NA**	**<2.0**	**<5.0**	**<0.50**	**NA**	**50.64**	**21.48**	**29.16**	**NA**	**1.4**
MW-11	12/10/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.58	19.10	26.48	NA	NA
MW-11	12/15/2003	110,000	NA	9,900	3,300	3,900	23,000	NA	20,000	NA	NA	<800	18,000	<200	NA	45.58	18.50	27.08	NA	0.3
MW-11	3/4/2004	68,000	NA	5,300	3,000	3,600	23,000	NA	8,300	NA	NA	<200	12,000	<50	NA	45.58	16.67	28.91	NA	0.1
MW-11	5/27/2004	86,000	NA	8,500	3,200	13,000	22,000	NA	25,000	NA	NA	<400	18,000	<100	NA	45.58	18.60	26.98	NA	1.6
MW-11	9/24/2004	63,000	NA	7,200	2,000	3,000	15,000	NA	26,000	<400	<400	<400	17,000	<100	<100	45.58	20.22	25.36	NA	2.2
MW-11	11/22/2004	96,000	NA	7,100	3,700	2,800	15,000	NA	20,000	NA	NA	<400	14,000	<100	NA	45.58	19.56	26.02	NA	0.3
MW-11	3/2/2005	63,000	NA	6,200	6,800	2,200	15,000	NA	16,000	NA	NA	<200	7,800	<50	NA	45.58	15.75	29.83	NA	4.6
MW-11	**6/30/2005**	**100,000**	**NA**	**4,200**	**18,000**	**3,800**	**25,000**	**NA**	**2,500**	**NA**	**NA**	**<400**	**3,400**	**<100**	**NA**	**45.58**	**16.92**	**28.66**	**NA**	**1.0**

WELL CONCENTRATIONS
Shell-branded Service Station
1784 150th Avenue
San Leandro, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to June 11, 2001, analyzed by EPA Method 8015.
TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015.
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to June 11, 2001, analyzed by EPA Method 8020.
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether, analyzed by EPA Method 8260
ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260
TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260
TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260
1,2-DCA = 1,2-dichloroethane, analyzed by EPA Method 8260
EDB = 1,2-dibromomethane or ethlyene dibromide, analyzed by EPA Method 8260
TOC = Top of Casing Elevation
SPH = Separate-Phase Hydrocarbons
GW = Groundwater
DO = Dissolved Oxygen
ug/L = Parts per billion
ppm = Parts per million
MSL = Mean sea level
ft. = Feet
<n = Below detection limit
(D) = Duplicate sample
NA = Not applicable

WELL CONCENTRATIONS
Shell-branded Service Station
1784 150th Avenue
San Leandro, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)

Notes:

a = Chromatogram pattern indicates an unidentified hydrocarbon.

b = Samples not analyzed due to laboratory oversight.

c = Hydrocarbon does not match pattern of laboratory's standard.

d = The concentration reported reflects individual or discrete unidentified peaks not matching a typical fuel pattern.

e = Estimated value. The concentration exceeded the calibration of analysis.

f = Quantit. of unknown hydrocarbon(s) in sample based on gasoline.

* = Sample analyzed out of EPA recommended hold time.

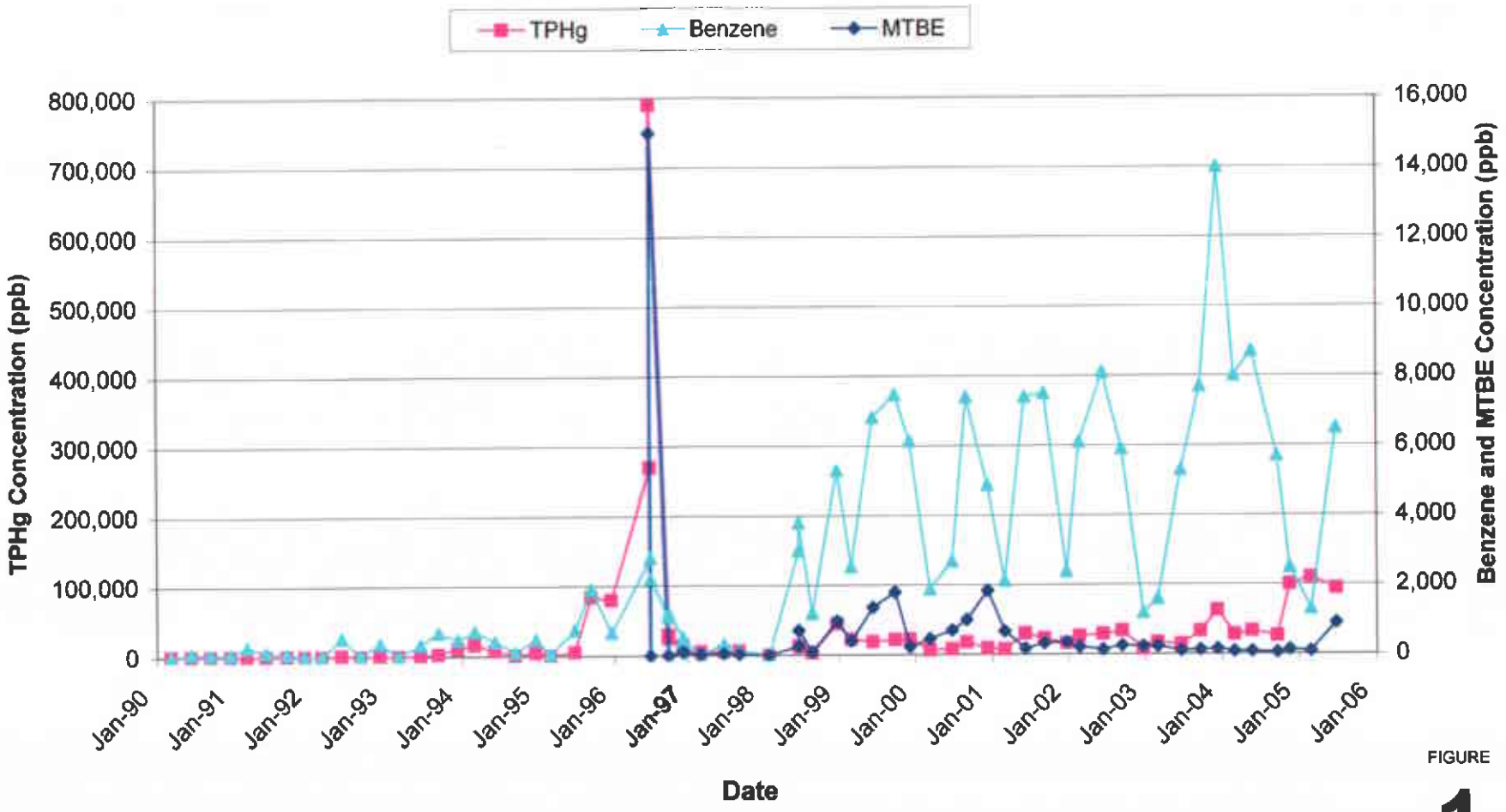
Site surveyed January 23, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.

Survey data for wells MW-7 and MW-8 provided by Cambria Environmental Technology.

Wells MW-9, MW-10, and MW-11 surveyed December 11, 2003 by Virgil Chavez Land Surveying of Vallejo, CA.

ATTACHMENT H

Plots of Chemical Concentration vs. Time and vs. Distance



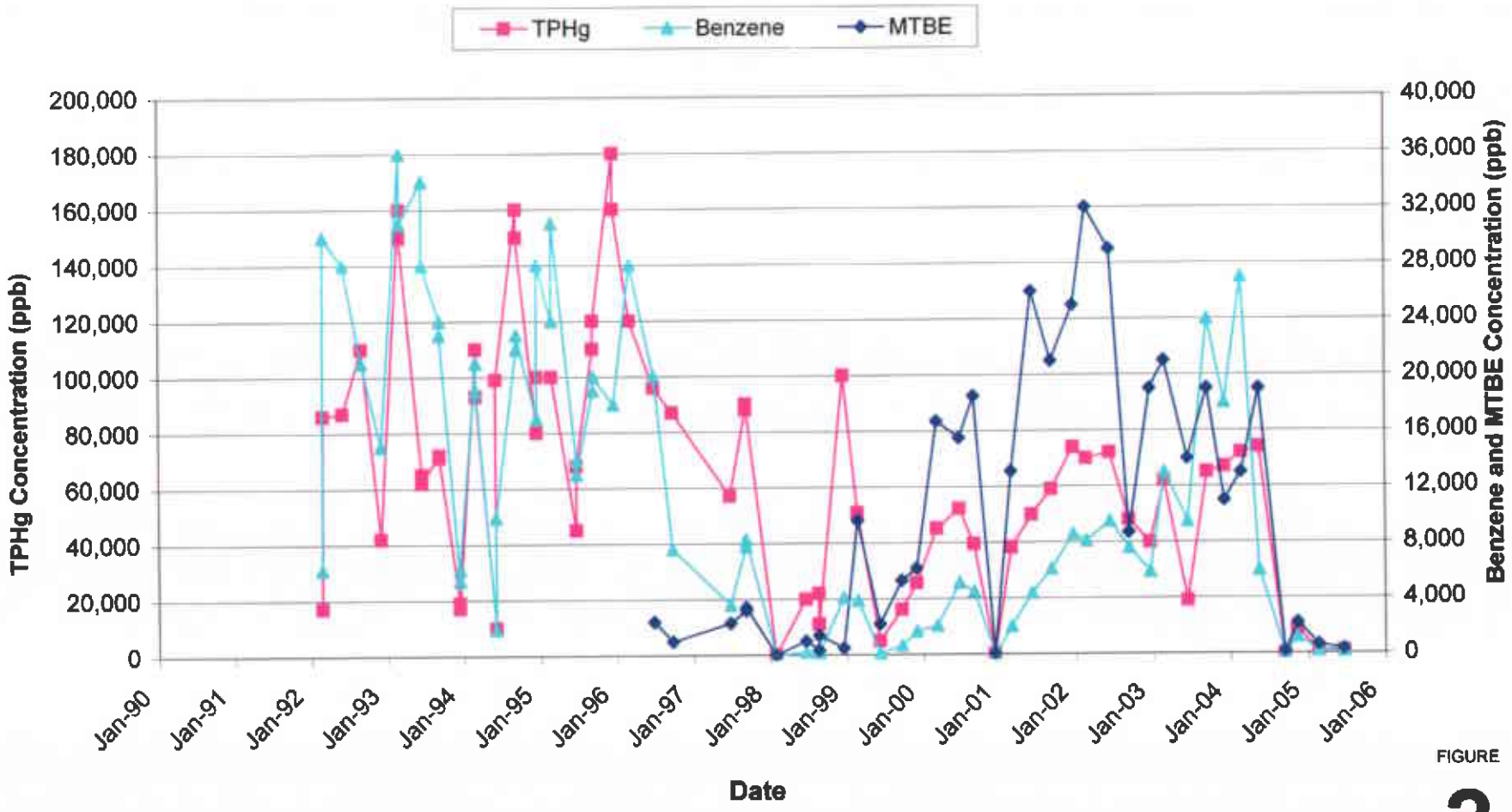
FIGURE

1

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-1 Groundwater Concentrations



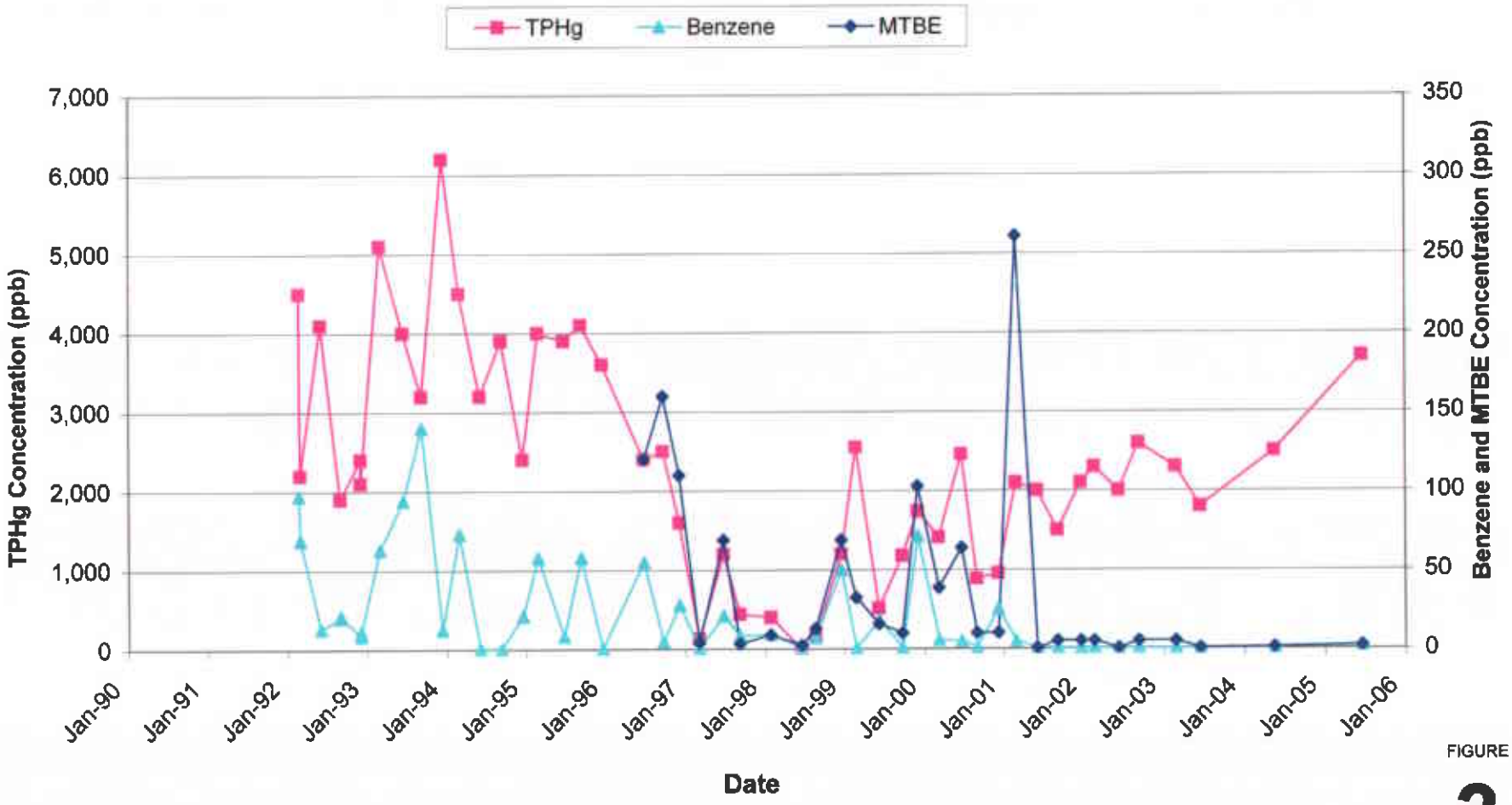
FIGURE

2

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-2 Groundwater Concentrations



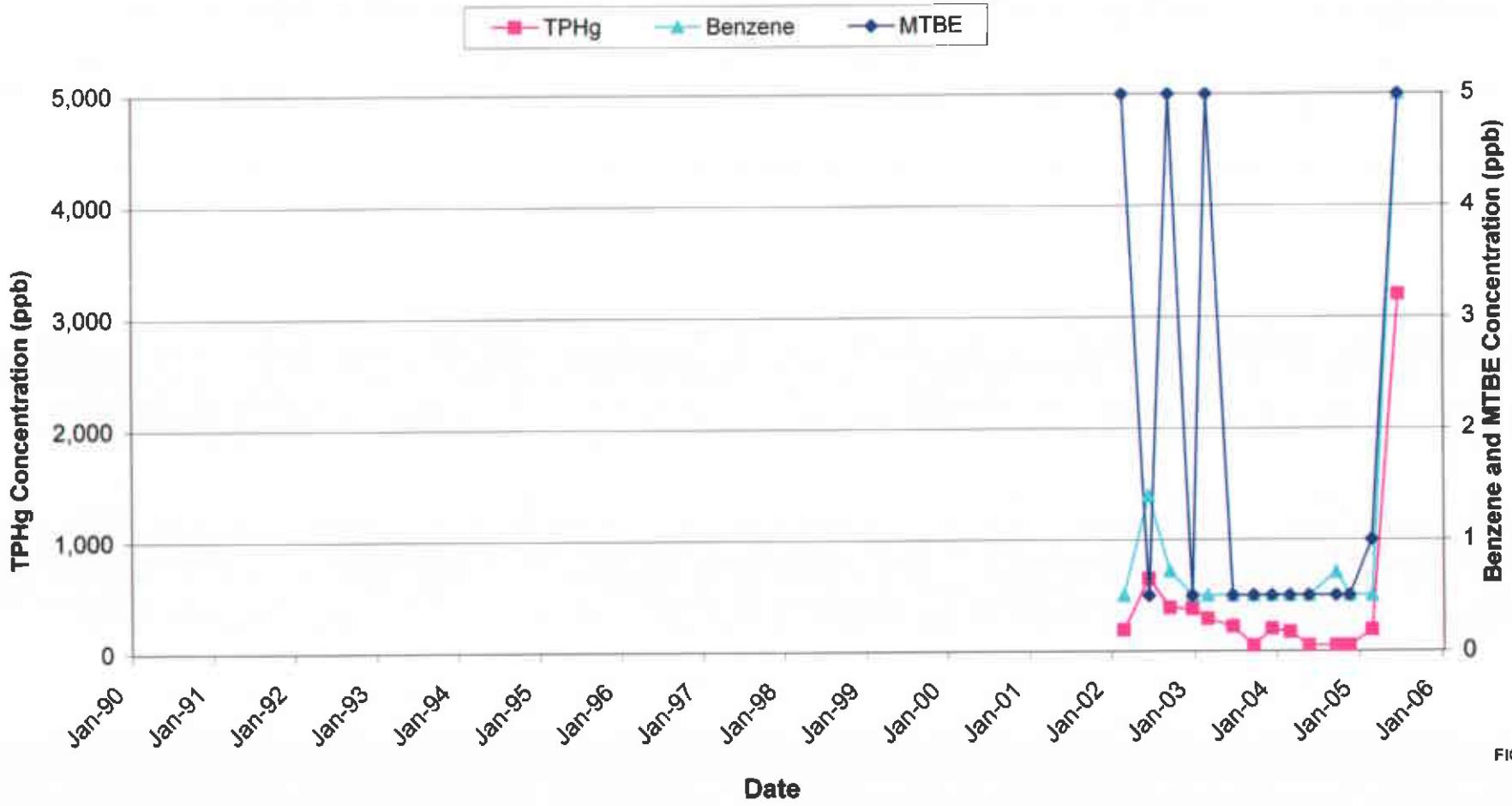
FIGURE

3

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-3 Groundwater Concentrations



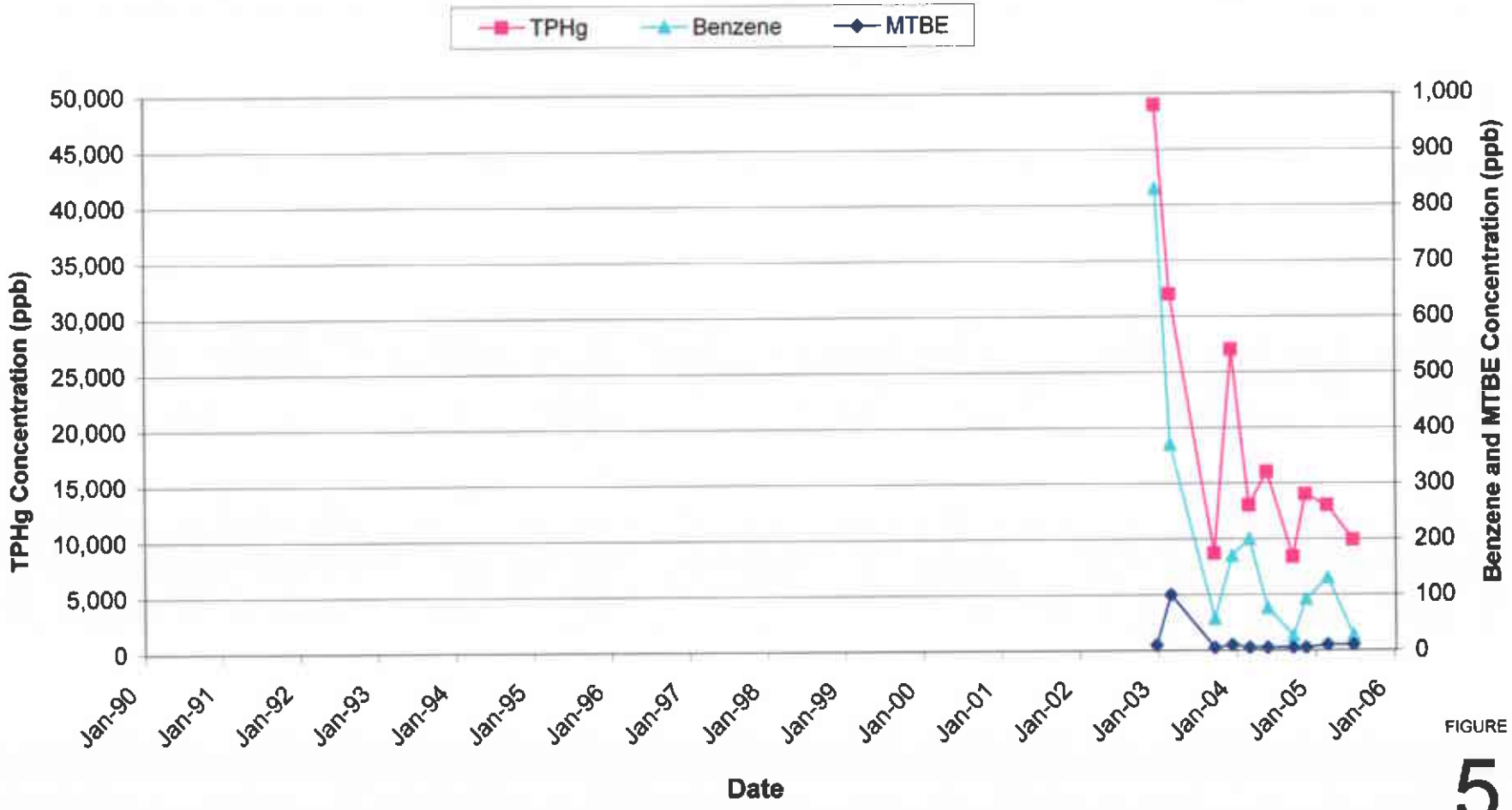
FIGURE

4

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-5 Groundwater Concentrations



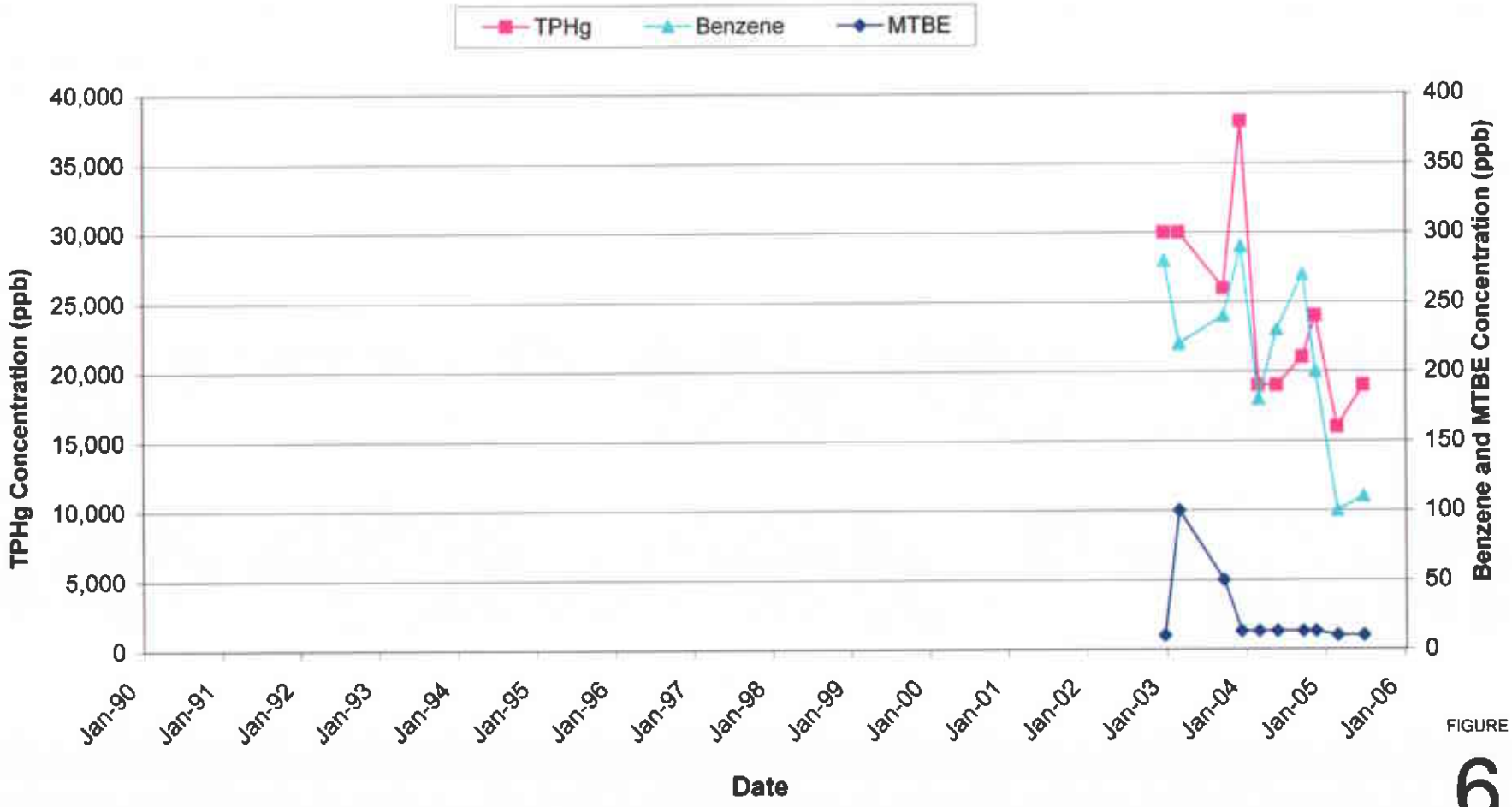
FIGURE

5

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-7 Groundwater Concentrations



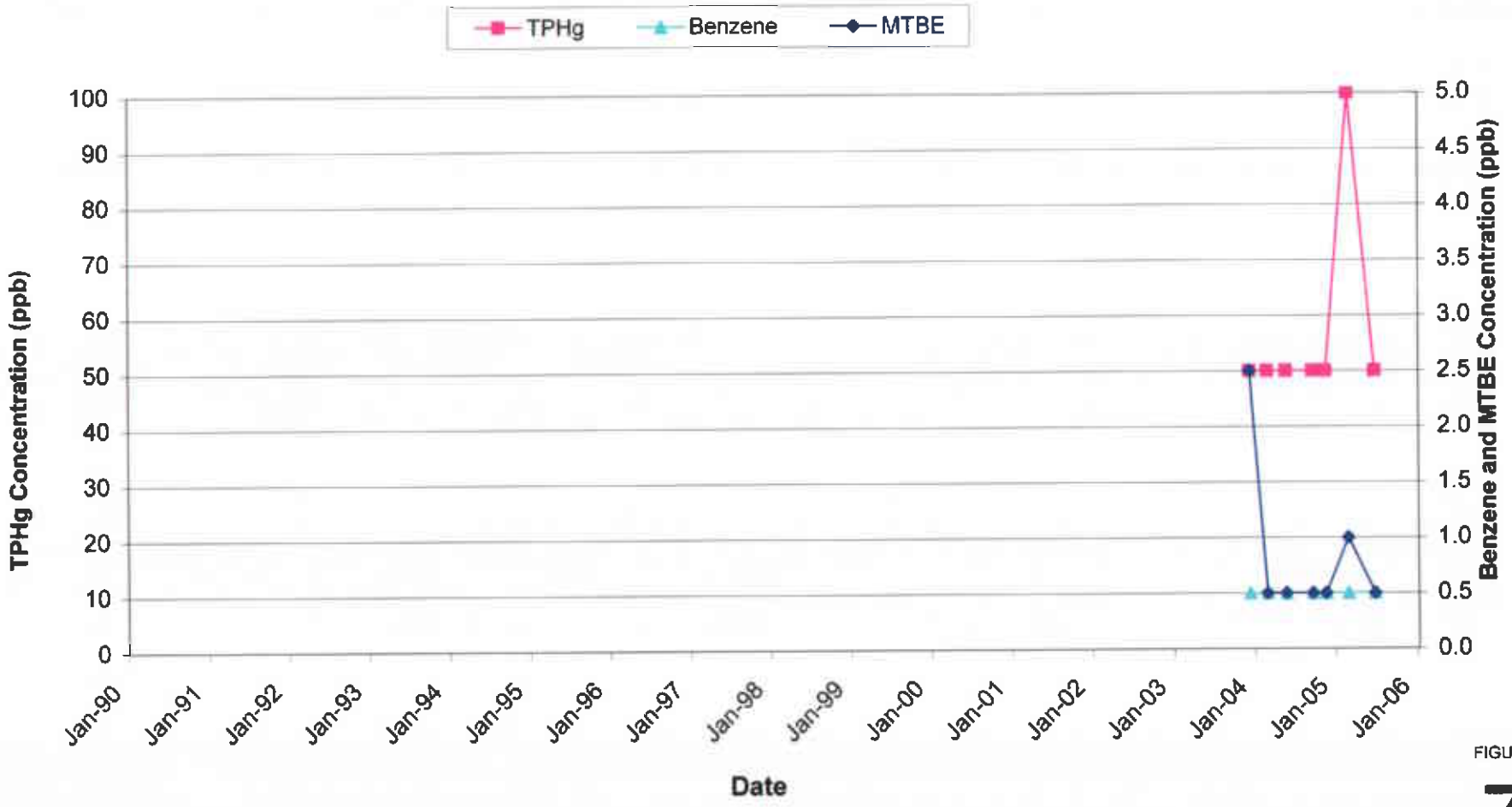
FIGURE

6

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-8 Groundwater Concentrations



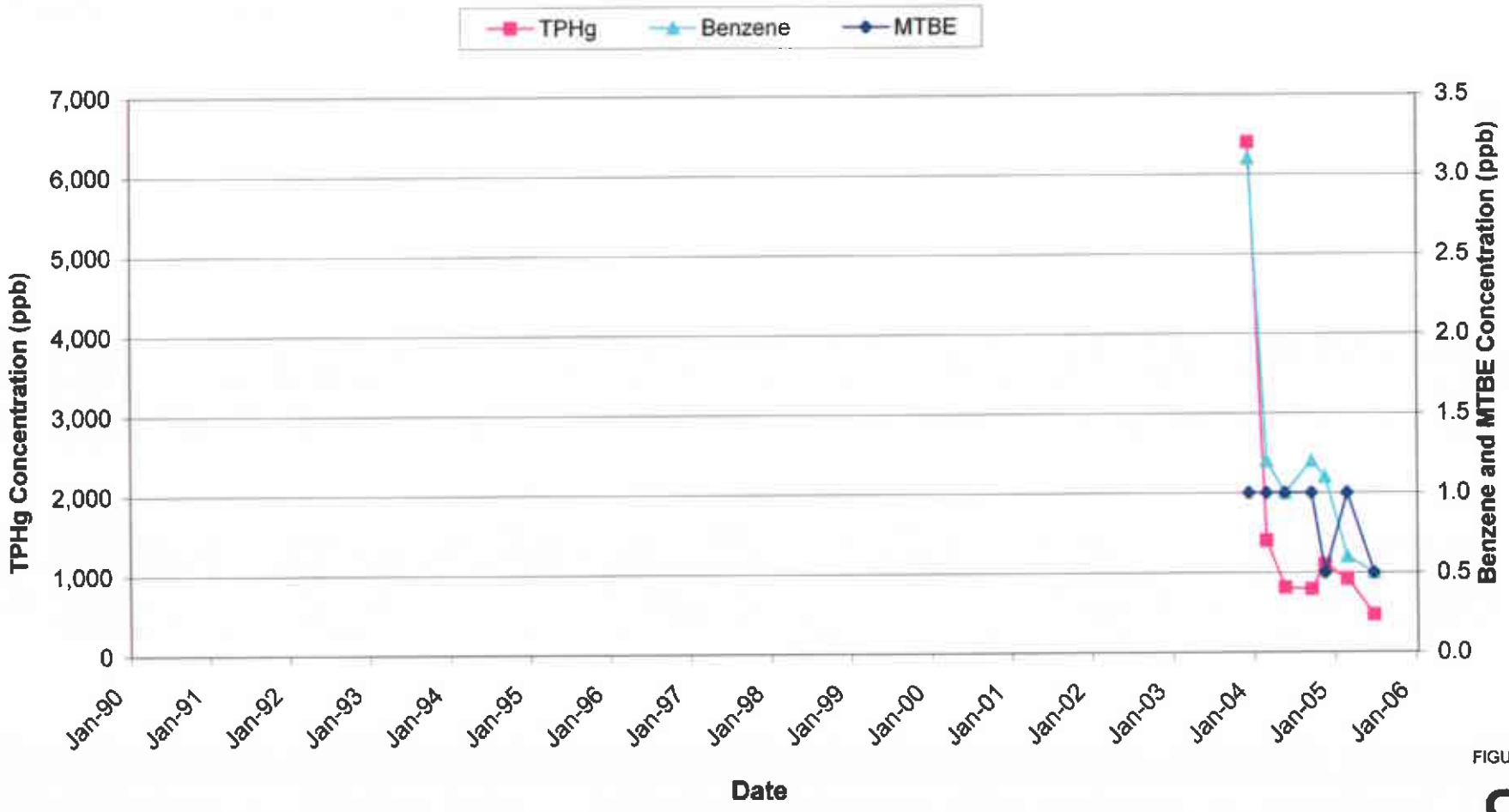
FIGURE

7

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-9 Groundwater Concentrations



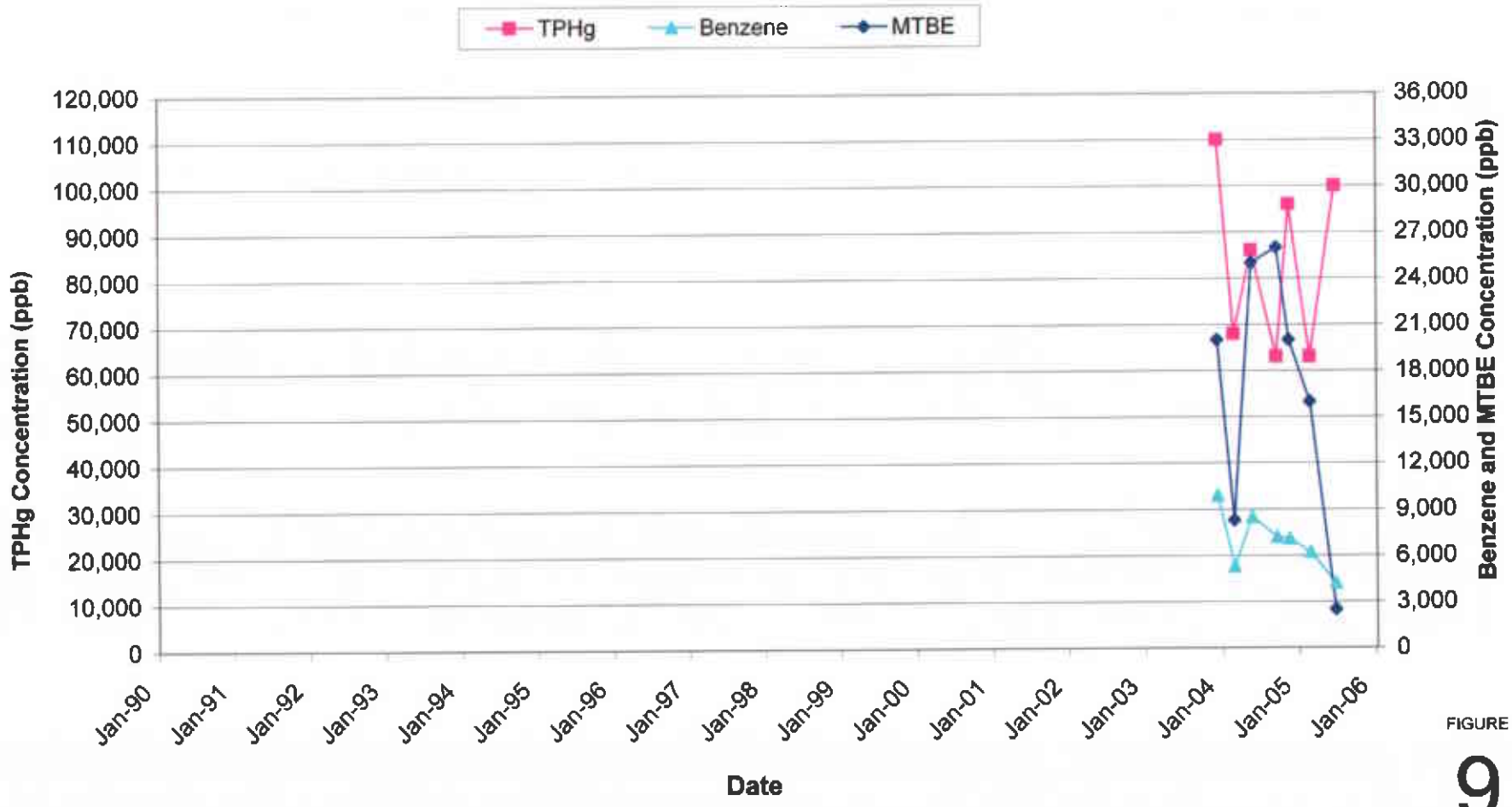
FIGURE

8

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-10 Groundwater Concentrations



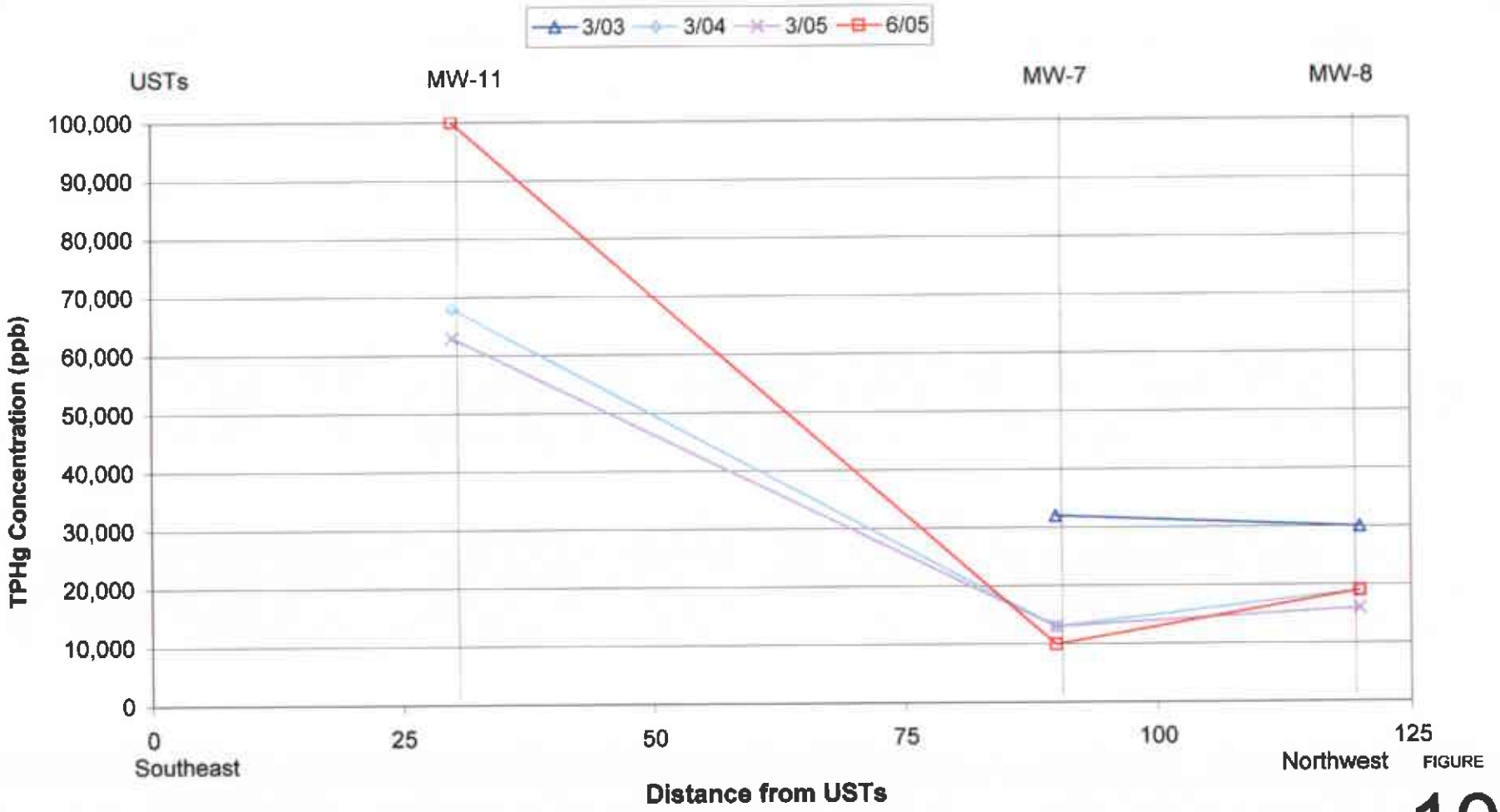
FIGURE

9

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MW-11 Groundwater Concentrations



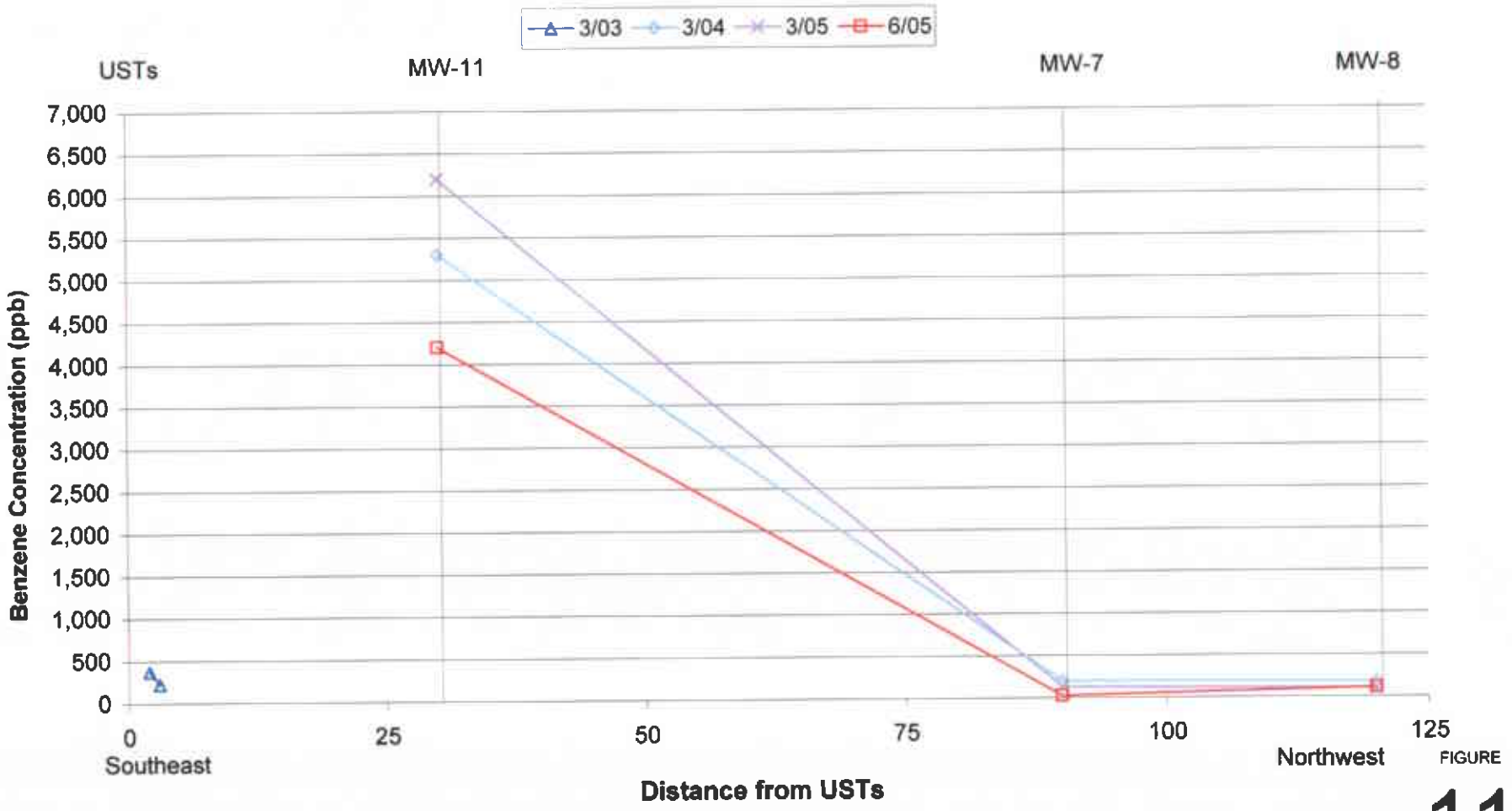
FIGURE

10

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

TPHg Groundwater Concentration in Shallow Zone



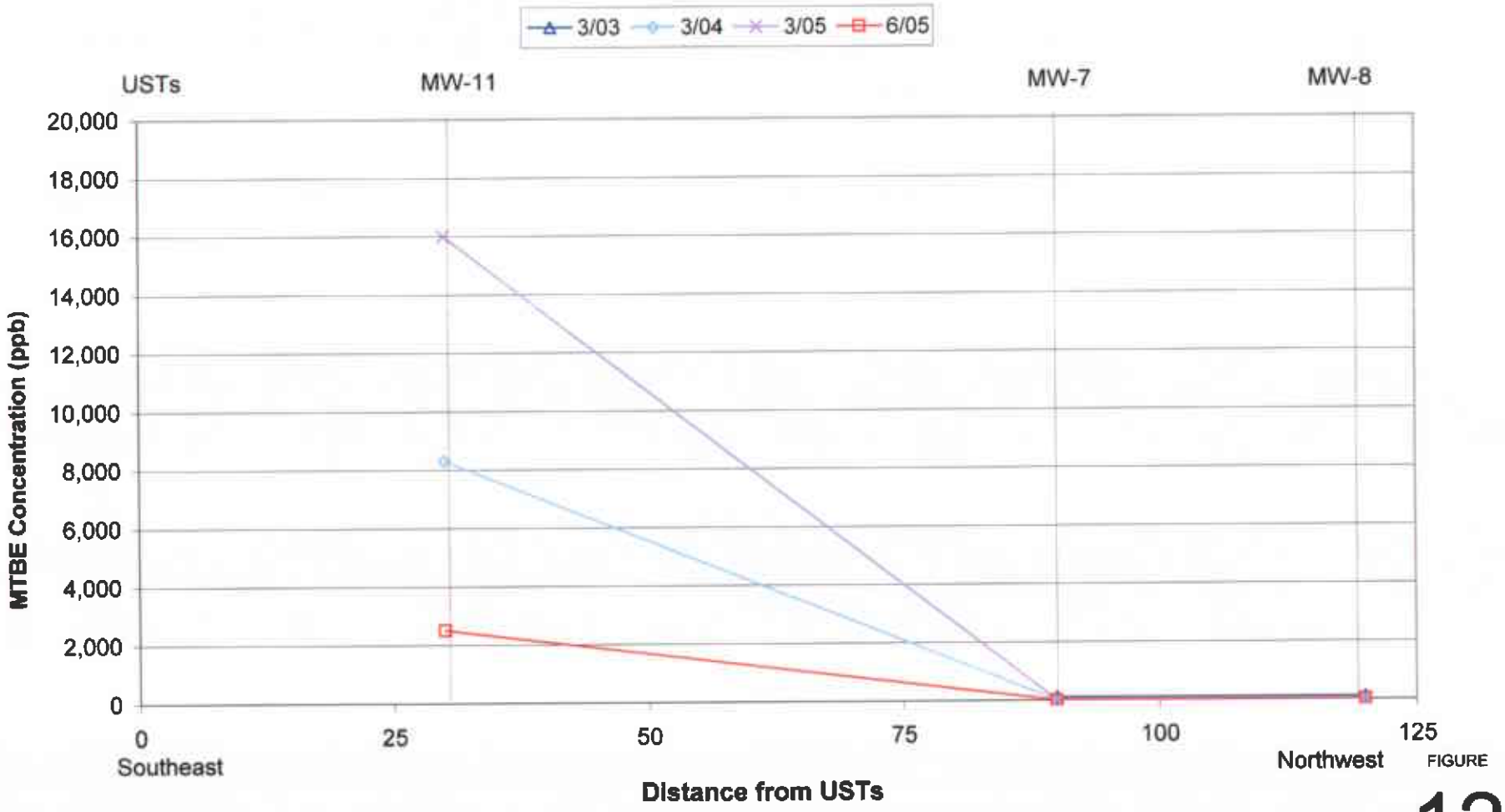
FIGURE

11

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

Benzene Groundwater Concentration in Shallow Zone



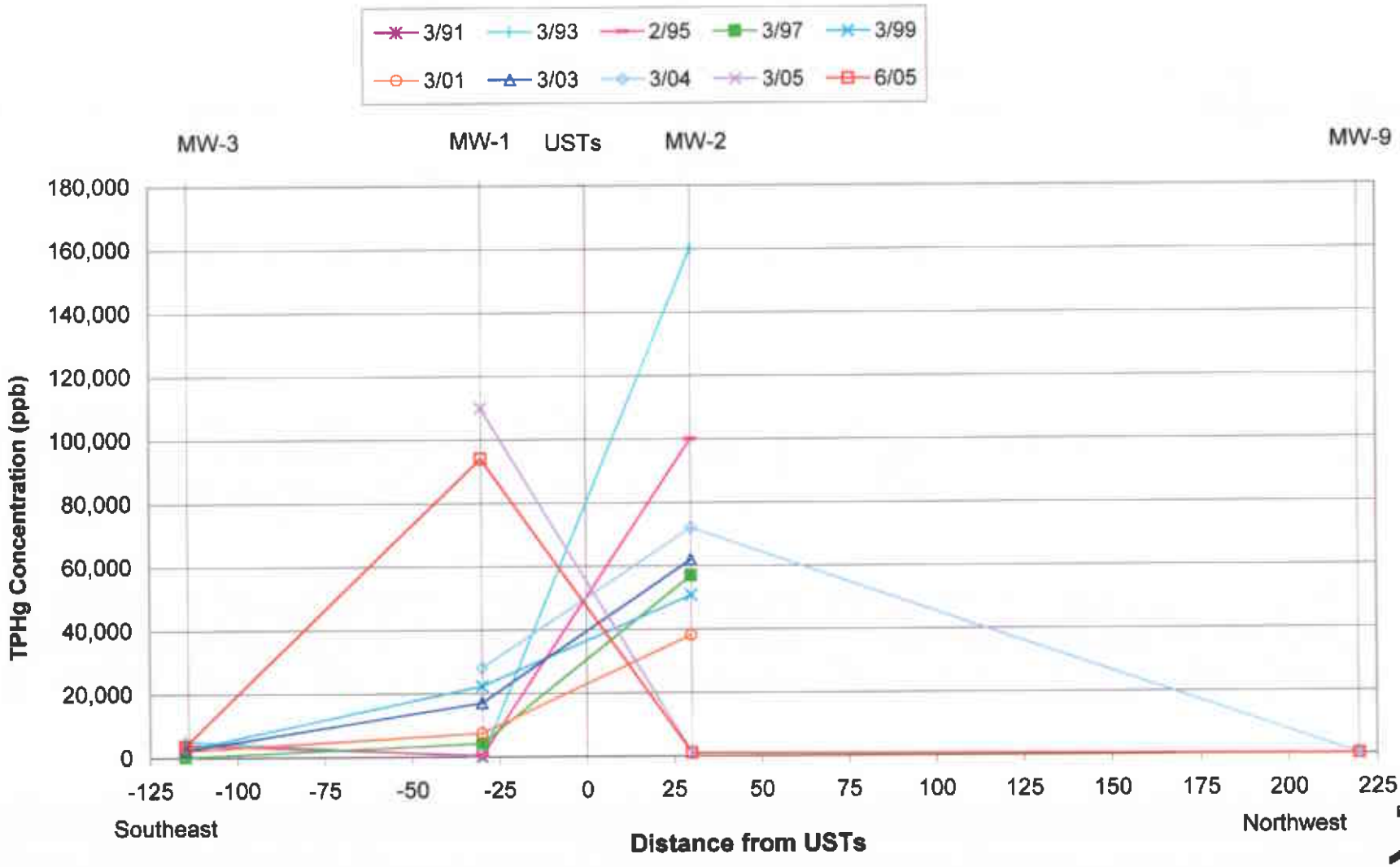
FIGURE

12

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MTBE Groundwater Concentration in Shallow Zone



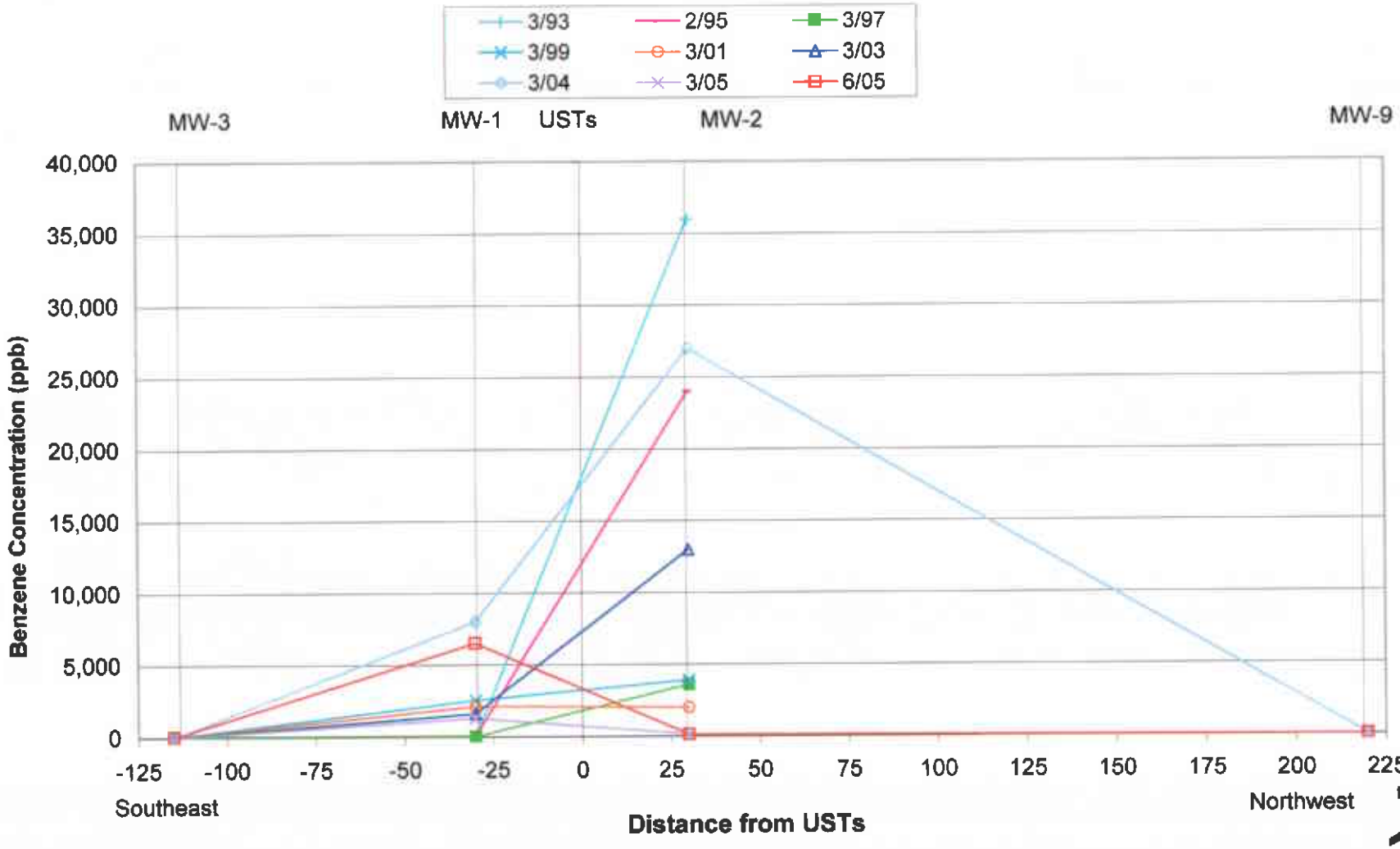
FIGURE

13

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

TPHg Groundwater Concentration in Deep Zone



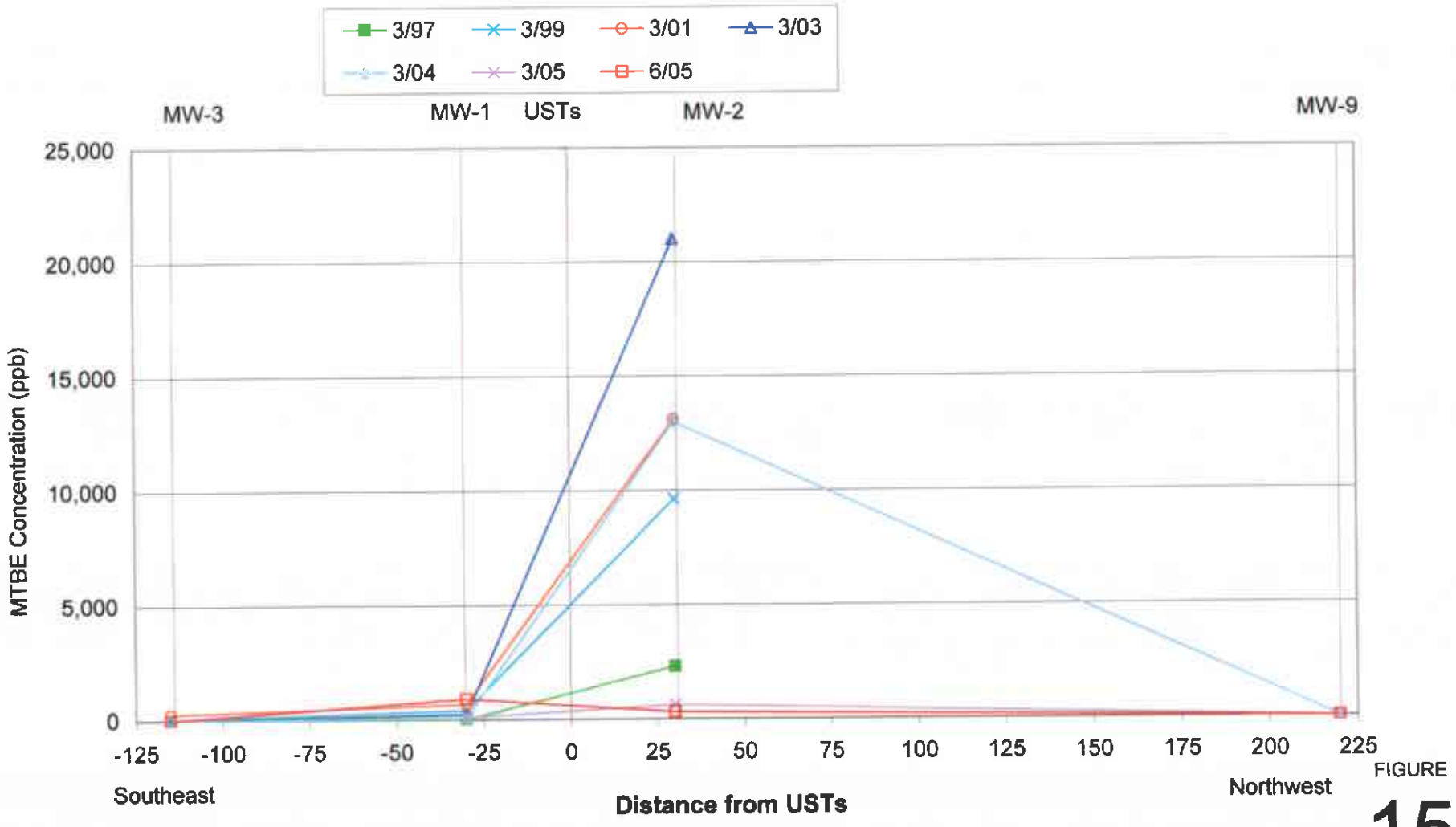
FIGURE

14

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

Benzene Groundwater Concentration in Deep Zone



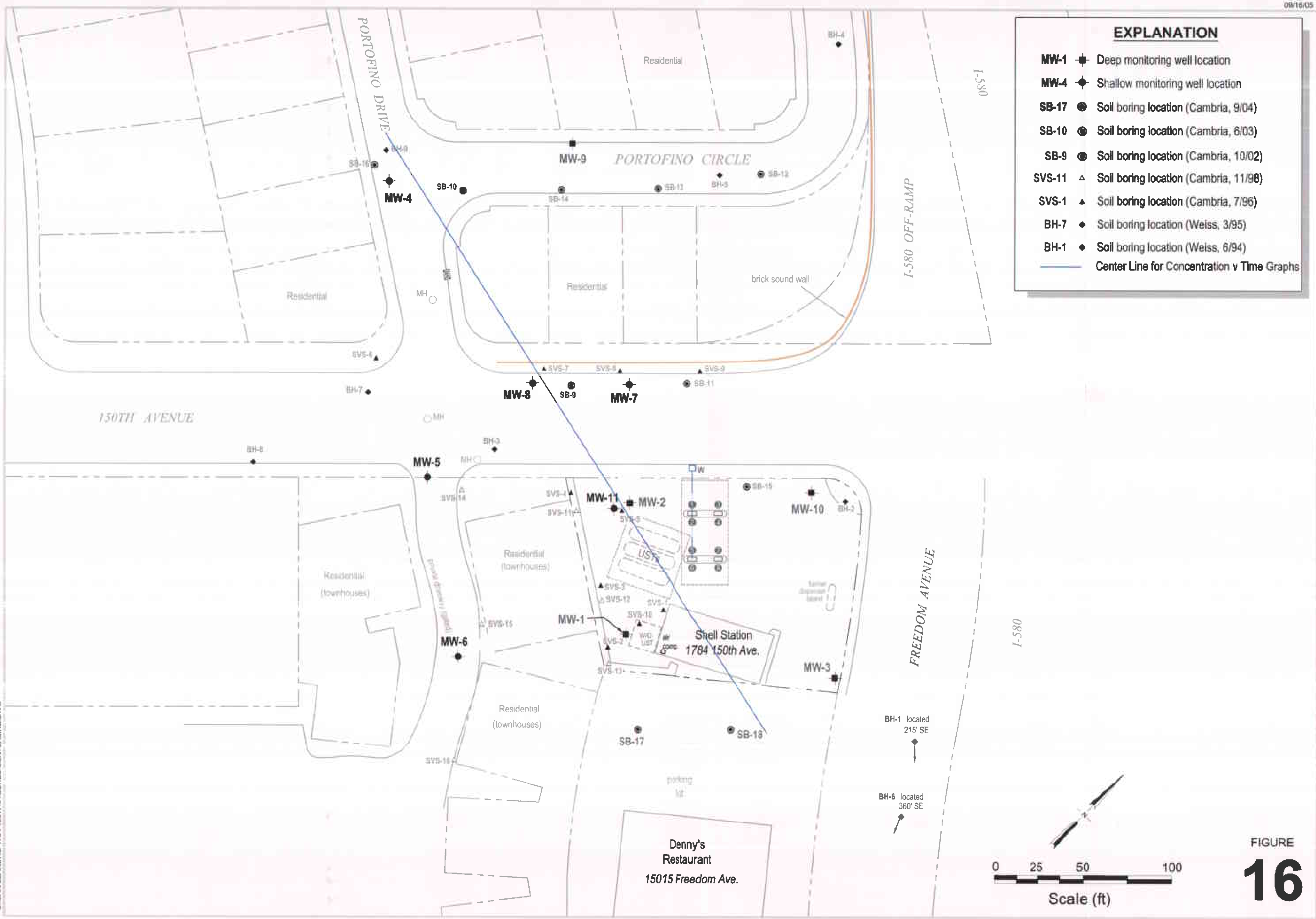
FIGURE

15

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

CAMBRIA

MTBE Groundwater Concentration in Deep Zone



09/16/05
EXPLANATION
MW-1 Deep monitoring well location
MW-4 Shallow monitoring well location
SB-17 Soil boring location (Cambria, 9/04)
SB-10 Soil boring location (Cambria, 6/03)
SB-9 Soil boring location (Cambria, 10/02)
SVS-11 Soil boring location (Cambria, 11/98)
SVS-1 Soil boring location (Cambria, 7/96)
BH-7 Soil boring location (Weiss, 3/95)
BH-1 Soil boring location (Weiss, 6/94)
Center Line for Concentration v Time Graphs
PORTOFINO DRIVE
PORTOFINO CIRCLE
150TH AVENUE
FREEDOM AVENUE
I-580 OFF-RAMP
I-580
Residential
Residential (townhouses)
brick sound wall
Shell Station
1784 150th Ave.
USTs
Denny's Restaurant
15015 Freedom Ave.
parking lot
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11
SB-9
SB-10
SB-17
SB-18
BH-1 located 215' SE
BH-6 located 360' SE
0 25 50 100
Scale (ft)
FIGURE
16
G:\SAN LEANDRO 1784 150TH\FIGURES\CENTERLINE.DWG

Center Line for Concentration v. Time v. Distance Graphs

CAMBRIA

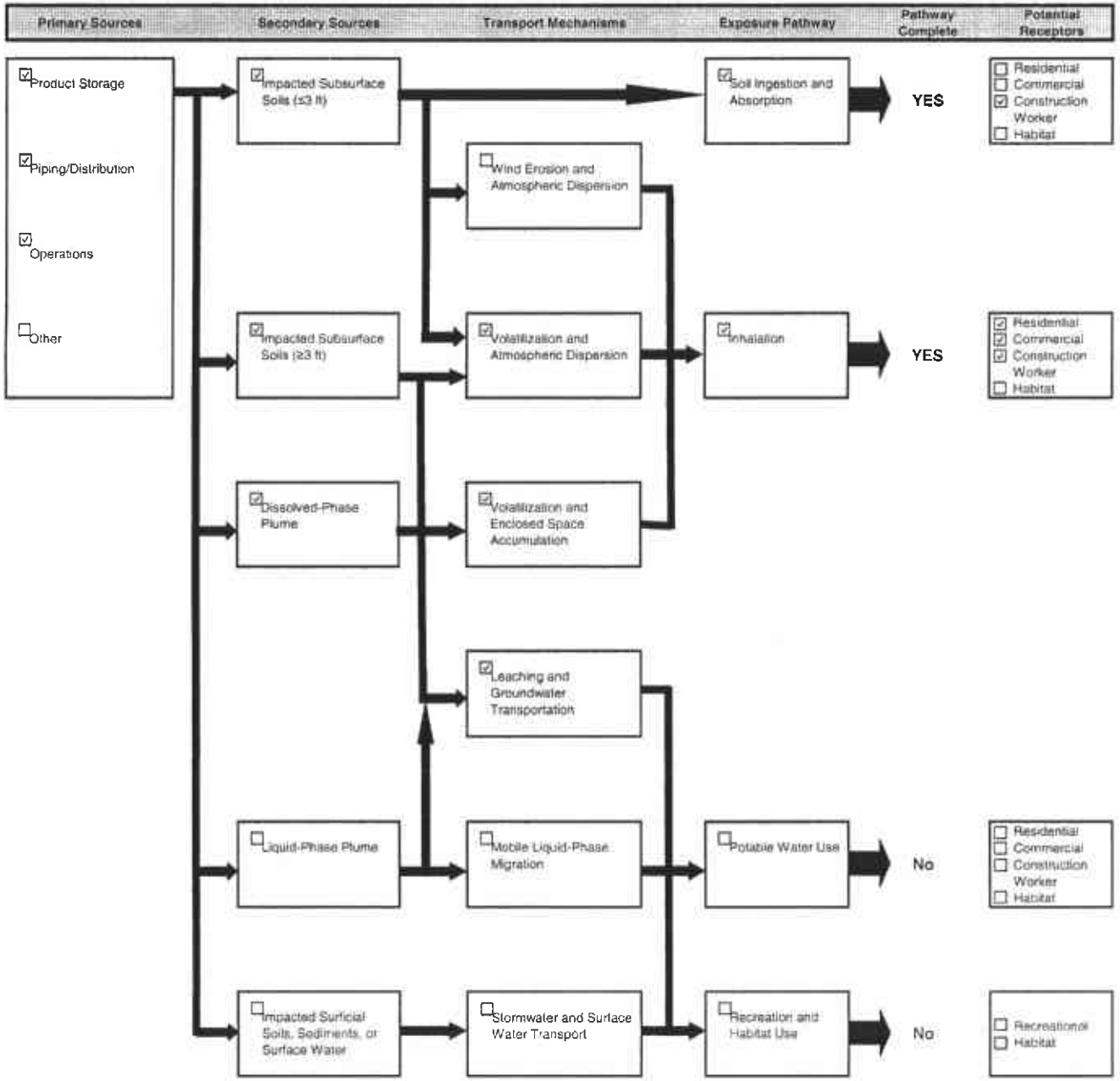
Shell-branded Service Station

1784 150th Avenue
San Leandro, California
Incident No.98996068

ATTACHMENT I

Exposure Evaluation Flowchart

Exposure Evaluation Flowchart - Shell-branded Service Station, 1784 150th Street, San Leandro, California



Flowchart based on ASTM E1739