5900 Hollis Street, Suite A Emeryville, California 94608 CONESTOGA-ROVERS Telephone: (510) 420-0700 & ASSOCIATES Fax: (510) 420-9170 www.CRAworld.com TRANSMITTAL DATE: April 18, 2011 **REFERENCE NO.:** 200497 **PROJECT NAME:** 3790 Hopyard Road, Pleasanton To: Jerry Wickham RECEIVED Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 11:27 am, Apr 19, 2011 Alameda County Alameda, California 94502-6577 Environmental Health **Please find enclosed:**  $\boxtimes$ Draft Final Originals Other **Prints** Sent via: Mail Same Day Courier  $\mathbf{X}$ **Overnight Courier** Other GeoTracker and Alameda County FTP **QUANTITY** DESCRIPTION **Corrective Action Plan** 1 As Requested  $\boxtimes$ For Review and Comment For Your Use **COMMENTS:** If you have any questions regarding the contents of this document, please call Peter Schaefer at (510) 420-3319. Copy to: Denis Brown, Shell Oil Products US (electronic copy) Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street, Pleasanton, CA 94566-6267 Cheryl Dizon, Zone 7 Water Agency, 100 North Canyons Parkway, Livermore, CA 94551 Sam Anabi, CAR Enterprises, 1040 North Benson Avenue, Upland, CA 91786-2157 Signed: John Schup Completed by: Peter Schaefer Filing: **Correspondence File** 



Mr. Jerry Wickham Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577 Denis L. Brown Shell Oil Products US

HSE – Environmental Services 20945 S. Wilmington Ave. Carson, CA 90810-1039 Tel (707) 865 0251 Fax (707) 865 2542 Email <u>denis.1.brown@shell.com</u>

Re:

Shell-branded Service Station 3790 Hopyard Road Pleasanton, California SAP Code 135784 Incident No. 98995842 ACEH No. RO0000363

Dear Mr. Wickham:

The attached document is provided for your review and comment. 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 Senior Program Manager



# **CORRECTIVE ACTION PLAN**

## SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD PLEASANTON, CALIFORNIA

SAP CODE	135784
INCIDENT NO.	98995842
AGENCY NO.	RO0000363

## Prepared by: Conestoga-Rovers & Associates

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Excavation, mobile GWE, and GWE using a dedicated system have been implemented historically at the subject site. The GWE system was operated until reaching its cost-effective limit for removal of petroleum hydrocarbon mass. Magnesium sulfate injection feasibility testing demonstrated its infeasibily for enhancing biodegradation of the remaining source mass. In situ and extraction technologies are limited by the very low permeability soil types, which do not accommodate feasible dispersion or effective mass removal. Collectively, this information demonstrates that on-site residual hydrocarbon mass can not be remediated by any means other than excavation, which is not practical while the station is operating. In addition, there is no practical way to remediate off-site groundwater impacts because they are limited in magnitude and located under Hopyard Road.

Previous investigations identified a possible risk of groundwater reaching Arroyo Mocho Canal; however, there is no data that verifies this assertion. Down-gradient well data show that groundwater impacts have been adequately delineated and there is little possibility that COCs originating from the site would adversely affect the Arroyo Mocho Canal at concentrations exceeding fresh surface water ESLs, which are protective of human and ecological receptors. Based on this reasoning, the preferred remediation option for the site is MNA.

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#### 1. INTRODUCTION

Conestoga-Rovers & Associates (CRA), formerly Cambria Environmental Technology, Inc. (Cambria), prepared this *Corrective Action Plan* (CAP) on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). Alameda County Environmental Health's January 20, 2011 letter requested the preparation of this CAP. This CAP complies with California Code of Regulations, Title 23, Division 3, Chapter 16, Underground Storage Tank Regulations.

The subject site is a Shell-branded service station located on the southwest corner of Hopyard Road and Las Positas Boulevard in a mixed commercial and residential area of Pleasanton, California (Figure 1). The current site layout includes three fuel underground storage tanks (USTs), two product dispenser islands, and a station building (Figure 2).

A summary of previous work performed at the site and additional background information is contained in Appendix A.

#### 2.0 SITE BACKGROUND

#### 2.1 HISTORICAL SITE USE

A review of aerial photographs from 1946 to 2009 indicates that the site was in agricultural use from 1946 to 1968 and that a service station occupied the site from at least 1979 to the present. The surrounding area is of mixed commercial and residential use.

#### 2.2 PRODÙCT RELEASES AND SOURCE AREA

Site assessment activities began in 1986, when hydrocarbons were detected in five borings drilled adjacent to the USTs prior to UST replacement. Release source and volume are unknown. The USTs were replaced in 1988, and the UST pit was over-excavated to 20 feet below grade (fbg). Fuel systems at the site were upgraded in 1998 and 2002. One 550-gallon waste oil tank was removed in 2007.

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#### 2.3 SITE GEOLOGY AND HYDROGEOLOGY

#### 2.3.1 <u>REGIONAL GEOLOGY AND HYDROGEOLOGY</u>

According to the *Evaluation of Ground Water Resources: Livermore and Sunol Valleys* (California Department of Water Resources [DWR] Bulletin No. 118-2, June 1974), the site is located in the Bernal sub-basin of the Livermore Valley groundwater basin. Streams draining Livermore Valley merge in the Bernal sub-basin and then leave the valley as Arroyo de la Laguna.

Shallow sediments below the site are primarily low-permeability silts and clays to a depth of approximately 43 to 53 feet underlain by interbedded sand, silt, and clay. DWR Bulletin No. 118-2 indicates that surface soils extend to 110 fbg in the area of the site and that water-bearing materials below these shallow sediments are comprised of the valley-fill materials. These materials are present as a sequence of sandy gravel and sandy clayey gravel aquifers up to 100 feet in thickness. The aquifers are separated by silty clay confining beds up to 30 feet in thickness.

#### 2.3.2 <u>SOIL TYPES</u>

Available cross-sections and exploratory boring logs are included in Appendix B. The locations of the wells and the soil borings are shown on Figures 2 and 3.

Shallow soils consist of interbedded layers of sandy clay, clayey sand, silty clay, and clay from the surface to approximately 43 to 53 fbg. Shallow groundwater occurs in a sandy lens within a relatively low permeability zone at a depth of approximately 24 fbg. Deeper soils consist of silt and sand interbeds to approximately 75 fbg. The lowermost portion of the shallow low permeability zone consists of silts and clays to approximately the total explored depth of 120 fbg. A sandy layer was encountered at approximately 117 fbg in one boring installed down gradient of the site.

#### 2.3.3 GROUNDWATER DEPTH AND FLOW DIRECTION

The depth to groundwater at the site typically ranges between 12 to 19 fbg. A groundwater contour map for the first quarter 2011 groundwater monitoring event is included as Figure 4. As seen on Figure 4, the groundwater flow direction for the site is predominantly toward the south-southeast to southeast, which is consistent with historical groundwater flow direction.

## 2.3.4 GROUNDWATER QUALITY ASSESSMENT

The California State Water Resources Control Board's Geotracker website file for the environmental case at this site states that the groundwater at this site is considered a "drinking water supply"; however, neighboring properties are served by the local municipal water purveyor for potable water.

## 2.4 PREFERENTIAL PATHWAY ANALYSIS

In 2002 and 2003, Cambria conducted a utility conduit survey to determine the location of potential preferential pathways in the site vicinity. On- and off-site utility locations are shown on Figures 2 and 3.

Cambria used information acquired from the City of Pleasanton and Pacific Gas and Electric (PG&E), in addition to conducting a site visit to identify underground utilities and potential receptors. The identified locations of sanitary and storm sewers, and water, natural gas, and electric utility lines are mapped on Figures 2 and 3 and summarized below:

- One 16-inch diameter water main and one 20-inch diameter water main trend north along Hopyard Road, and another 16-inch diameter water main line trends east along Las Positas Boulevard. City of Pleasanton engineering maps indicate that the water mains are typically buried at a depth of approximately 5.6 to 7.2 feet to the top of the pipe. The bottom of the deepest trench backfill is estimated to be approximately 9 fbg.
- A 15-inch diameter storm drain flows north along Hopyard Road, and an 18-inch diameter storm drain flows east along Las Positas Boulevard. City of Pleasanton engineering maps of the region indicate that the storm drain conduits are typically buried at a depth of approximately 6.5 to 10.2 feet to the top of the pipe. The bottom of the deepest trench backfill is estimated to be approximately 12.5 fbg.
- According to the most recent map of utilities for the area, which predates construction of Las Positas Boulevard, an electric line runs northeast from the site into an electric line of unknown size that trends west-east along Las Positas Boulevard. Electric lines are typically buried at a depth of approximately 2 to 3 fbg.

- A gas line runs along the eastern edge of Hopyard Road and runs across the northern portion of Hopyard Road.
- No sanitary sewer lines were identified on any of the available utility maps.

Groundwater depths have typically ranged from 12 fbg to 19 fbg, although average depths range from 13 to 15 fbg. Groundwater typically flows toward the south-southeast to southeast. Given the approximated depth to the bottom of the aforementioned pipes, it is possible that the storm drain trench backfill intercepts groundwater during times of high water elevation. However, the storm drains are located at shallower depths than groundwater has typically been measured; therefore, they have not likely influenced chemical migration from the site.

#### 2.5 <u>SENSITIVE RECEPTORS</u>

#### 2.5.1 <u>WELL SURVEY</u>

In 2002 and 2003, Cambria conducted a sensitive receptor survey. Cambria reviewed DWR and Alameda County Flood Control & Water Conservation District Zone 7 Water Agency (Zone 7) files to locate records of municipal and private wells within a  $\frac{1}{2}$ -mile radius of the site. A total of six wells, not including monitoring wells, was identified through the DWR and Zone 7 records within the <sup>1</sup>/<sub>2</sub>-mile radius. The predominant groundwater flow direction, as calculated from depth to water measurements in on- and off-site monitoring wells, is toward the south-southeast to southeast (Figure 4). One abandoned well is located either on site or immediately down gradient of the site. According to Wyman Hong of Zone 7, the well was an old farm well formerly owned by Volk McClain Company in 1960. Records show the well specifications to be 12 inches in diameter with a total depth of 172 fbg. The well was last sampled in 1978 by Zone 7. Mr. Hong also stated that Zone 7 could not locate the well, its status is "unlocatable," and it is considered closed by Zone 7. One active municipal well (Hopyard well 6) and one destroyed Zone 7 municipal well (Hopyard well 1) are located approximately 0.3 mile southeast of the site. Two additional active wells of unknown use are located 0.43 mile to the southeast. One destroyed irrigation well is located approximately  $\frac{1}{2}$ -mile east of the site. The well locations identified in the well survey are shown on Figure 1, and a table summarizing well details is presented in Appendix C.

Given the distance from the site to the municipal wells, it is unlikely that hydrocarbons originating from the site will reach these wells. Wells S-14 and S-15 presently serve as sentry wells to monitor possible migration of methyl tert-butyl ether (MTBE) to the municipal well.

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## 2.5.2 SURFACE WATER

Arroyo Mocho, a canal located approximately 400 feet south of the site, is the closest potential surface water receptor to the site. Surface water in Arroyo Mocho flows to the west-southwest at a depth of approximately 25 feet below the surrounding grade. Current concentrations of chemicals of concern (COCs) in wells S-9 and S-12, which are located along the up-gradient boundary of Arroyo Mocho, are compared to San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs)<sup>1</sup> for freshwater surface water in the following table.

	TABLE A	
COCs	Current Maximum Concentrations in Boundary Wells S-9 and S-12 Units in µg/l	ESLs for Freshwater Surface Water Bodies (Table F) Units in µg/l
TPHg	<50	100
Benzene	<0.50	46
Toluene	<0.50	40
Ethylbenzene	<0.50	30
Xylenes	1.8	20
MTBE	13	5.0
Tertiary-Butyl		
Alcohol (TBA)	<10	12

No COCs were detected in well S-12. Given the attenuation of MTBE concentrations between well S-5 and S-9 (Figure 4), and no COC concentrations in well S-12, it is unlikely that water in Arroyo Mocho has been impacted by chemicals from the site.

## 3.0 <u>REMEDIATION</u>

Appendix D presents available tables detailing the historical performance of full-scale remedial actions and remediation feasibility testing. The site history included as Appendix A provides additional details for the events described below.

<sup>&</sup>lt;sup>1</sup> Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater, California Regional Water Quality Control Board, Interim Final – November 2007 [Revised May 2008]

## 3.1 <u>1988 EXCAVATION</u>

In 1988, three fuel USTs were removed and impacted soils were over-excavated to a depth of 20 fbg. Analytical results for soil samples collected during the UST removal are presented in Table 1. Three new fuel USTs were installed in a new location east of the former UST excavation.

### 3.2 <u>2001-2003 MOBILE GROUNDWATER EXTRACTION (GWE)</u>

In May 2001, Advanced Cleanup Technologies Inc. (ACT) conducted three weekly 8-hour mobile GWE events using site monitoring wells S-2 and S-4 and tank backfill well T-2. In August 2001, ACT conducted three additional GWE events. In April 2002, Onyx Industrial Service (Onyx) initiated twice-monthly events extracting from tank backfill well T-2. Between June 2002 and September 2002, Onyx also extracted groundwater from well S-4. Extraction from well S-4 was discontinued due to low extraction volumes. Tank backfill well T-4 was added to the twice-monthly extraction events in October 2002. Through the end of February 2003, an estimated 0.96 pound of total petroleum hydrocarbons as gasoline (TPHg) and 9.31 pounds of MTBE were removed via mobile GWE.

### 3.3 <u>2003-2006 GWE</u>

From July 2003 until May 2006, Cambria and then Delta Consultants (Delta) (beginning in February 2005) operated a full-scale GWE system using three groundwater recovery wells (SR-1 through SR-3) and one UST backfill well (T-3). The GWE system was operated until reaching its cost-effective limit for mass removal. The GWE system extracted and treated an estimated 3,142,212 gallons of water containing an estimated 15.7 pounds of MTBE.

## 3.4 <u>2010 MAGNESIUM SULFATE (MGSO4)</u> INJECTION FEASIBILITY STUDY

In May and August 2010, Delta conducted an MgSO<sub>4</sub> injection feasibility study on wells S-2 and S-4. Approximately 75 gallons of MgSO<sub>4</sub> solution were gravity-fed into each well during each event. Based on subsequent groundwater sampling, Delta concluded

that the MgSO<sub>4</sub> injections were of limited effectiveness, and should not be implemented on a full-scale basis.

## 4.0 **DISTRIBUTION OF COCS**

## 4.1 <u>HYDROCARBON DISTRIBUTION IN SOIL</u>

Hydrocarbons in soils have been adequately delineated to below ESLs and are primarily present in the area of the current and former dispensers and fuel USTs. Vadose zone soil impacts (less than 15 fbg) exceeding ESLs are defined horizontally by soil samples collected from S-3, A1, B1, S-10, S-7, S-5, CPT-5, and SR-1. Deeper soil impacts (greater than 15 fbg) are likely related to groundwater impacts and generally have been found within the area of the historical groundwater plume.

Historical soil analytical data are presented in Tables 1 and 2, and soil sampling locations are presented in Figures 2 and 3.

## 4.2 HYDROCARBON DISTRIBUTION IN GROUNDWATER

Currently, there are 13 shallow monitoring wells, 4 deeper groundwater monitoring wells located both on site and off site, 3 on-site groundwater recovery wells, and 4 UST backfill wells at the site. Groundwater has been monitored on site since November 1987. Historical groundwater data is presented in Tables 3 and 4. During the most recent groundwater monitoring event on January 21, 2011 (Figure 4), maximum concentrations of 2,000 micrograms per liter ( $\mu$ g/L) TPHg, 21  $\mu$ g/1 benzene, 25  $\mu$ g/1 MTBE, and 3,500  $\mu$ g/1 TBA were detected in shallow monitoring well S-2. All COC concentrations in deeper wells are below ESLs. As shown in the following table, MTBE and TBA concentrations are projected to reach ESLs within 10 years, with the exception of TBA in well S-6 which shows an increasing trend. Since TBA is a degradation product of MTBE and MTBE concentrations in S-6 are decreasing, it is anticipated that TBA concentrations will begin to drop in the near future and will reach ESLs in a reasonable timeframe.

		T	ABLE B					
Well ID	Constituent of Concern	January 21 2011 Concentration (µg/L)	RWQCB Drinking Water ESL	Time to Reach Drinking Water ESL				
6.7	MTBE	25	5.0	3				
5-2	TBA	820	12	7				
6.4	MTBE	13	5.0	1				
5-4	TBA	810	12	10				
	MTBE	6.6	5.0	1				
S-6	TBA	3,500	12	Increasing trend, MTBE degrading				
S-7	MTBE	6.9	5.0	1				
S-8	MTBE	5.3	5.0	1				
S-9	MTBE	13	5.0	1				
S-11	MTBE	11	5.0	1				
	MTBE	1.3	5.0	Achieved				
SK-2	TBA	53	12	5				
	MTBE	1.8	5.0	Achieved				
SK-3	TBA	85	12	3				

The hydrocarbon plume in groundwater is adequately delineated down gradient to the south and south east by wells S-12, S-14, and S-15. Trends of MTBE and TBA concentrations in wells S-2, S-4, S-6 through S-9, S-11, SR-2, and SR-3 are presented in Figures 5 through 13.

#### 4.3 2002 SOIL VAPOR INVESTIGATION

In April and July 2002, Cambria conducted a soil gas survey in the UST backfill wells (T-1 through T-4). Soil vapor samples contained up to 10,000 parts per million by volume (ppmv) TPHg, 4.2 ppmv benzene, 1.0 ppmv toluene, 1.2 ppmv xylenes, and 780 ppmv MTBE. Ethylbenzene was not detected in the soil vapor samples. Sample locations are shown on Figure 2 and laboratory data are presented in Table 5.

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## 5.0 FEASIBLITY STUDY/CAP

## 5.1 **PROPOSED SITE CLEANUP GOALS**

Cleanup goals are typically based on one or more of the following criteria:

- California Department of Health Services (DHS) primary or secondary maximum contaminant levels (MCLs) for drinking water,
- ESLs established by the RWQCB,
- Risk-based clean-up levels established by risk assessment or risk-based corrective action (RBCA) analysis,
- Current closure guidelines from the regulatory agencies, such as the California State Water Resources Control Board (SWRCB) criteria for low-risk groundwater cases,
- Application of Best Available Technology based on remediation system operation data that demonstrate asymptotic levels have been achieved for chemical concentrations in soil and/or groundwater,
- Background concentrations of individual pollutants, or
- Technologic and economic feasibility.

The Arroyo Mocho Canal is the primary receptor. As stated above, it does not appear that COCs originating the site have or will reach the Arroyo Mocho Canal at concentrations exceeding fresh surface water ESLs, which are protective of human and ecological receptors. Additionally, this station is part of a service station sale with contract provisions for long-term use of the Shell brand and specific restrictions on site development to commercial uses excluding child day care, elder care, or other similar sensitive uses. We propose commercial ESLs as the remediation goals for the site.

#### 5.2 <u>REMEDIAL ALTERNATIVES DISCUSSION AND APPROACH</u>

Excavation and GWE have been implemented at this site. The GWE system was operated until reaching its cost-effective limits. MgSO<sub>4</sub> testing proved its infeasibility for enhancing biodegradation of the residual mass. Therefore, CRA's opinion is that the remaining source mass can not be actively remediated by any means other than excavation. In situ and extraction technologies, such as air sparging, soil vapor extraction, or multi-phase extraction, are limited by the very low permeability soil types, which do not accommodate feasible dispersion or effective mass removal. In addition, there is no practical way to remediate off-site groundwater impacts because they are limited in magnitude and located under Hopyard Road.

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As stated above, it does not appear that COCs originating from the site reach the Arroyo Mocho Canal at concentrations exceeding fresh surface water ESLs, which are protective of human and ecological receptors. Thus, COC concentrations are currently at acceptable levels.

Given the site conditions and remedial objective, excavation is considered the only feasible source removal method, and excavation is not practical while the service station is in operation. Discharge of COCs to Arroyo Mocho Canal at concentrations exceeding fresh water surface water ESLs is unlikely. Therefore, CRA believes monitored natural attenuation (MNA) is the only remaining feasible technology for mitigating residual hydrocarbon mass, and it is evaluated below.

## 5.2.1 <u>MNA</u>

**Description:** MNA consists of allowing hydrocarbons to biodegrade naturally under the terms of a long-term groundwater monitoring plan. Biodegradation, adsorption, chemical reactions, and volatilization can all naturally degrade hydrocarbons found in impacted groundwater. MNA is performed by monitoring the natural degradation process that can take place in the subsurface. The primary indicator of the success of natural attenuation is a decreasing concentration trend. Secondary indicators such as dissolved oxygen (DO) concentrations, oxidation-reduction potential, alkalinity, nitrate, sulfate, and ferrous iron concentrations can also be used to evaluate the presence of and the potential for natural attenuation.

*Feasibility and Cost-Effectiveness:* MNA is typically a low-cost alternative if cleanup levels can be met in a reasonable timeframe. DO data (Table 3) suggest anaerobic biodegradation is occurring, which is slower than aerobic biodegradation. As previously discussed, it does not appear that COCs originating the site reach the Arroyo Mocho Canal at concentrations exceeding fresh surface water ESLs; thus MNA would be the most cost-effective approach.

#### 6.0 <u>CONCLUSIONS</u>

The Arroyo Mocho Canal is the primary potential receptor. Groundwater impacts are adequately delineated, and, as stated above, it does not appear that COCs originating from the site reach the Arroyo Mocho Canal at concentrations exceeding fresh surface water ESLs, which are protective of human and ecological receptors. Additionally, this station is part of a service station sale with contract provisions for long term use of the Shell brand and specific restrictions on site development to commercial uses excluding child day care, elder care, or other similar sensitive uses. We propose commercial ESLs as the remediation goals for the site.

Residual source mass can not be removed efficiently or cost effectively. Additionally, the apparent risk to receptors does not warrant active remediation.

## 7.0 <u>RECOMMENDATIONS</u>

Based on the information presented, CRA recommends implementing MNA and continuing semiannual groundwater monitoring following the established monitoring program.

## All of Which is Respectfully Submitted, CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG



for Nun h

William Brasher, PE

FIGURES





I:\6-chars\2004--\200497\200497-FIGURES\200497 SITE PLAN.DWG (03/31/2011)



I:\6-chars\2004--\200497\200497-FIGURES\200497 EXT. SITE PLAN.DWG (03/31/2011)



I:\Shell\6-chars\2004--\200497-Pleasanton 3790 Hopyard\200497-REPORTS\200497-RPT1-1Q11\200497 1QM11-GW.DWG (04/01/2011)

## Figure 5: Predicted Time to Reach Environmental Screening Levels in Well S-2

 $y = b e^{ax}$  $x = \ln(y/b) / a$ where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether Tert-Butyl Alcohol (MTBE) (TBA) Constituent Given ESL : 12 5 y Constant: 5.94E+28 6.73E+26 b Constant: -1.55E-03 -1.37E-03 а Starting date for current trend: 1/21/2009 4/11/2008 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.25 1.22 1.39 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Mar 2014 Jun 2018 TBA MTBE Depth to Groundwater 100,000 13 10,000 15 Depth to Groundwater (fbg) Concentration (µg/L) 1,000 17 -1.37E-03x TBA: v 6.73E+26e 100 19 10 21 MTBE:  $y = 5.94E + 28e^{-1.55E - 03x}$ 23 1 Van US 1211.02 Jan.03 Jan 04 Jan 06 Janon 1211-98 1211-99 1211.00 121-01 and Patr Jar. MOBILE GWE Date GWE SYSTEM OPERATION SHELL-BRANDED SERVICE STATION S-2: MTBE AND TBA CONCENTRATIONS 3790 HOPYARD RD AND DEPTH TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

## Figure 6: Predicted Time to Reach Environmental Screening Levels in Well S-4

 $y = b e^{ax}$  $x = \ln(y/b) / a$ where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether Tert-Butyl Alcohol (MTBE) (TBA) Constituent Given ESL : 5 12 y Constant: 7.60E+27 1.98E+22 b Constant: -1.53E-03 -1.10E-03 а Starting date for current trend: 7/12/2006 4/11/2008 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.25 1.24 1.73 Estimated Date to Reach ESL: Dec 2011 Aug 2021  $(x = \ln(y/b) / a)$ - TBA Depth to Groundwater 100,000.0 10 10.000.0 14 Depth to Groundwater (fbg) Concentration (µg/L) 1,000.0 18 TBA:  $y = 1.98E + 22e^{-1.10E - 03x}$ 100.0 22 10.0 26 MTBE:  $y = 7.60E + 27e^{-1.53E - 03x}$ 1.0 30 34 0.1Janos 1211.06 Jan-96 lan-98 1an-00 Jan 04 Janon angl ang Varial Parily Parily 1an.or 1211-09 1an-10 1an-1 MOBILE GWE Date GWE SYSTEM OPERATION SHELL-BRANDED SERVICE STATION S-4: MTBE AND TBA CONCENTRATIONS 3790 HOPYARD RD AND DEPTH TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

## Figure 7: Predicted Time to Reach Environmental Screening Levels in Well S-6

 $y = b e^{ax}$  $x = \ln(y/b) / a$ where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether Tert-Butyl Alcohol (MTBE) (TBA) Constituent Given ESL : 12 5 y Constant: 5.84E+15 NA b Constant: -8.46E-04 NA а Starting date for current trend: 1/22/2007 7/12/2006 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.25 2.24 Increasing trend Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Apr 2012 Increasing trend - TBA Depth to Groundwater 100,000 10 10,000 14 Depth to Groundwater (fbg) Concentration (µg/L) 1,000 18 100 22 10 26 MTBE:  $y = 5.84E + 15e^{-8.46E - 04x}$ 30 1 Janob 1211-01 Jan.O2 Jan.03 Jan 04 Vanob Janon 1211.00 1211-98 Pari 125 MOBILE GWE Date GWE SYSTEM OPERATION SHELL-BRANDED SERVICE STATION S-6: MTBE AND TBA CONCENTRATIONS 3790 HOPYARD RD AND DEPTH TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

## Figure 8: Predicted Time to Reach Environmental Screening Levels in Well S-7

 $y = b e^{ax}$  $x = \ln(y/b) / a$ where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether (MTBE) Constituent Given ESL : 5 y Constant: 7.99E+20 b Constant: -1.14E-03 а Starting date for current trend: 7/12/2006 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.25 1.66 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Sep 2011 Depth to Groundwater 10,000.0 12 1,000.0 14 Depth to Groundwater (fbg) MTBE:  $y = 7.99E + 20e^{-1.14E - 03x}$ Concentration (µg/L) 100.0 16 10.0 18 1.0 20 22 0.1 Jan.06 1amol4 Janob Van of 1211-98 1an-00 Jan OS Janol 1an-08 Van-96 lan 9 Janol Janol Jan 09 Jan-10 Janil MOBILE GWE Date GWE SYSTEM OPERATION SHELL-BRANDED SERVICE STATION S-7: MTBE CONCENTRATIONS AND DEPTH 3790 HOPYARD RD TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

## Figure 9: Predicted Time to Reach Environmental Screening Levels in Well S-8

 $y = b e^{ax}$  $x = \ln(y/b) / a$ where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether (MTBE) Constituent Given ESL : 5 y Constant: 6.25E+23 b Constant: -1.31E-03 а Starting date for current trend: 4/11/2008 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.25 1.45 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Feb 2011 MTBE Depth to Groundwater 100 10 Depth to Groundwater (fbg) Concentration (µg/L) 10 16 MTBE:  $y = 6.25E+23e^{-1.31E-03x}$ 22 1 1211.06 Janob Van-96 1211-98 1ando Janol Jan.O2 Jan 03 Jan 04 Janol angi 1211-09 Janos Van-11 Jan 09 Patril MOBILE GWE Date GWE SYSTEM OPERATION SHELL-BRANDED SERVICE STATION S-8: MTBE CONCENTRATIONS AND DEPTH 3790 HOPYARD RD TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

## Figure 10: Predicted Time to Reach Environmental Screening Levels in Well S-9

 $y = b e^{ax}$  $x = \ln(y/b) / a$ where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether (MTBE) Constituent Given ESL : 5 y Constant: 1.81E+31 b Constant: -1.72E-03 а Starting date for current trend: 7/12/2006 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.25 1.10 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Jan 2012 MTBE Depth to Groundwater 1,000 0 MTBE:  $y = 1.81E + 31e^{-1.72E - 03x}$ Depth to Groundwater (fbg) Concentration (µg/L) 100 10 10 20 30 1 Jan.06 Janon Varu-06 1211-98 lan-9 1an.00 Janol Janol Jan 03 Jan 04 Janob angi Janos Jan 09 Jan-10 1an-11 MOBILE GWE Date GWE SYSTEM OPERATION SHELL-BRANDED SERVICE STATION S-9: MTBE CONCENTRATIONS AND DEPTH 3790 HOPYARD RD TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

## Figure 11: Predicted Time to Reach Environmental Screening Levels in Well S-11

 $y = b e^{ax}$  $x = \ln(y/b) / a$ ---> where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether (MTBE) Constituent Given ESL : 5 y Constant: 1.65E+26 b Constant: -1.44E-03 а Starting date for current trend: 1/22/2007 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.25 1.32 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Sep 2011 MTBE Depth to Groundwater 100.0 0 MTBE:  $y = 1.65E+26e^{-1.44E-03x}$ Depth to Groundwater (fbg) Concentration (µg/L) 10.0 10 1.0 20 30 0.1 1an-OS Jan-06 Jan O2 1an.03 Janola Janual Janob Jan 09 Janilo Janil MOBILE GWE STOPPED Date GWE SYSTEM OPERATION SHELL-BRANDED SERVICE STATION S-11: MTBE CONCENTRATIONS AND DEPTH 3790 HOPYARD RD TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

## Figure 12: Predicted Time to Reach Environmental Screening Levels in Well SR-2

 $y = b e^{ax}$  $x = \ln(y/b) / a$ ---> where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether Tert-Butyl Alcohol (MTBE) (TBA) Constituent Given ESL : 12 5 y Constant: 7.40E+04 7.16E+17 b Constant: -2.46E-04 -9.10E-04 а Starting date for current trend: 7/9/2007 1/22/2007 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.25 7.71 2.09 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Nov 2006 Mar 2016 MTBE - TBA Depth to Groundwater 100,000 10 10,000 15 Depth to Groundwater (fbg) TBA:  $y = 7.16E + 17e^{-9.10E-04x}$ Concentration (µg/L) 1,000 20 100 25 10 30 MTBE:  $y = 7.40E + 04e^{-2.46E - 04x}$ 35 1 1211-09 1an-O2 Van OS Janos 1an-08 Janilo Janil MOBILE GWE STOPPED Date GWE SYSTEM OPERATION ----SHELL-BRANDED SERVICE STATION SR-2: MTBE AND TBA CONCENTRATIONS 3790 HOPYARD RD AND DEPTH TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

## Figure 13: Predicted Time to Reach Environmental Screening Levels in Well SR-3

 $y = b e^{ax}$  $x = \ln(y/b) / a$ ---> where:  $y = \text{concentration in } \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether Tert-Butyl Alcohol (MTBE) (TBA) Constituent Given ESL : 12 5 y Constant: 6.97E+22 2.73E+38 b Constant: -1.28E-03 -2.07E-03 а Starting date for current trend: 7/9/2007 4/13/2007 Calculate Attenuation Half Life (years):  $(-\ln(2)/a)/365.25$ 1.48 0.92 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Jan 2009 Oct 2013 - TBA MTBE Depth to Groundwater -100,000.0 10 10,000.0 14 Depth to Groundwater (fbg) TBA:  $y = 2.73E + 38e^{-2.07E - 03x}$ Concentration (µg/L) 1,000.0 18 100.0 22 10.0 26 1.0 30 MTBE:  $y = 6.97E + 22e^{-1.28E-03x}$ 0.134 Janos Vanuts 1an-OA 1an-06 Janon Janos Janoz 1an.C. land ar MOBILE GWE STOPPED Date GWE SYSTEM OPERATION SHELL-BRANDED SERVICE STATION SR-3: MTBE AND TBA CONCENTRATIONS 3790 HOPYARD RD AND DEPTH TO GROUNDWATER PLEASANTON, CALIFORNIA CONESTOGA-ROVERS & ASSOCIATES

TABLES

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#### TABLE 1

#### HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Sample ID	Date	Depth (fbg)	0&G	TPHwo	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2- DCA	EDB	Ethanol
S-A	1/22/1986	7-8.5		ND	 4. 1		<u> </u>											
S-B	1/22/1986	4 - 5.5	<u></u>			30	0.3	0.2	<u></u>	2.3ª						5	27 <del>-</del>	<u>-</u>
S-B	1/22/1986	8 - 9.5			<u> </u>	74	4.3	6.8		<b>8.8</b> ª						<u> </u>	<u> </u>	
S-B	1/22/1986	11.5 - 13				79	0.4	0.1	<u></u> -2	0.8 <sup>a</sup>								
S-C	1/22/1986	4 - 5.5	<u>.</u>	<u></u>		. 2	<0,10	<0.1		0.8ª								
S-C	1/22/1986	7 - 8.5	. <u> </u>			5,100	14	130		1,200 <sup>ª</sup>	·		<u> </u>	2			<u></u>	
S-C	1/22/1986	11.5 - 13	÷÷.			420	4	48	<u> </u>	110ª	-		· ·	÷				- <del>17</del>
S-D	1/23/1986	4 - 5.5				2	0.2	0.2		<0.4 <sup>a</sup>		<u> </u>		· · ·			S	
S-D	1/23/1986	7 - 8.5				10	<0.1	0.1		0.7ª			·				, <del></del>	<u> </u>
S-D	1/23/1986	11.5 - 13				110	0.8	0.2		12 <sup>a</sup>		<del></del>			÷÷	- <del>1</del> 1-		
S-E	1/23/1986	4 - 5.5	<u>.</u>			<2.0	<0.1	<0.1		<0.4ª	s — 1					· · •••		
S-E	1/23/1986	7 - 8.5			. <u></u>	6	<0.1	<0.1	<u>.</u>	<0.4 <sup>a</sup>	28 - <u>-</u> 23	فنفيد	- <u></u> -					
S-E	1/23/1986	11.5 - 13	-			6	0.4	<0.1		1.0ª	· · .		 1.5			<del></del>		
ST-1	10/28/1987	13.0 - 14.5				13	2.7	0.3		1.4		·	<del></del>					
ST-2	10/28/1987	<b>13.0 - 14</b> .5				23	0.22	0.7		4.3	<del></del> `			<sup>1</sup> .				
S-1	10/28/1987	<b>14.0 - 15</b> .5				57	5.3	0.3		6.8	·		·					
S-1	10/28/1987	<b>19.0 - 20.</b> 5				9	0.43	0.1		0.8								
S-1	10/28/1987	33.5 - 35.0				<5	<0.05	<0.1		<0.4								
S-2	10/28/1987	14.0 - 15.5				53	6.7	0.1		8								
S-2	10/28/1987	19.0 - 20.5				5	0.07	<0.1		0.4								
S-2	10/28/1987	33.5 - 35.0				<5	< 0.05	<0.1		<0.4								

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#### TABLE 1

#### HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

	Depth								Ethyl-	Total						1,2-			
Sample ID	Date	(fbg)	0&G	TPHwo	TPHd	TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	DCA	EDB	Ethanol	
S-3	1/26/1988	19.0 - 20.5				<5	<0.05	<0.1		<0.4									
S-4	1/26/1988	19.0 - 20.5				41	6.2	<0.1		5.9		·							
S-5	1/26/1988	19.0 - 20.5		'		4,700	50	170		900									
A1	8/3/1988	14	2 <del>-</del>		<u> </u>	1.300	13	110	45	230	·	194 <del>4</del>	9 ( <u>1</u> .).		18 <u>-</u> 19 -			24 <u>-</u> 27	
A1X	8/3/1988	20				<1.0	<0.1	<0.1	<0.1	<0.1				 		 			
A2	8/3/1988	14			چند ک	2,100	11	32	72	350	ê		· ·			<u> </u>		<u> </u>	
A2X	8/3/1988	20.5				80	1.3	2.6	3.4	16									
B-1	8/3/1988	14				11	0.2	<0.1	<0.1	<0.1		<u> </u>							
B-2	8/3/1988	14		(k ) (		120	5.9	5.8	3.7	19	e		3 <u>4</u> 3						
B2X	8/3/1988	20.5				1.5	<0.1	<0.1	<0.1	<0.1		19. u tra denda porto da el 19.							
C-1	8/3/1988	14				110	2.8	0.4	7.8	31									
C-1X	8/3/1988	16			·	9.1	0.8	<0.1	1.1	0.6									
C-2	8/3/1988	14				52	4.8	0.1	4.4	3.9									
A5	8/5/1988	5				3	1.3	<0.1	<0.1	<0,1				17. <u>17. 1</u> 7. 17. 19. 19. 19. 19. 19. 19. 19.	893 <u>99</u> 3 88 878 <u>8</u> 9 89 878 89		<u>21</u> 8		
A10	8/5/1988	10			777	3.5	0.5	<0.1	0.2	0.2		ي يتيني ال		्र हर					
A15	8/5/1988	15				4.4	0.7	<0.1	0.5	0.3	·				,				
S-6-2A	10/4/1988	9 - 10 5				·<5	0.05	<0.1	<0.1	<0.3									
S-6-3A	10/4/1988	14 - 15.5				9	<0.05	<0.1	<0.1	<0.3									
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### HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

		Depth							Ethyl-	Total						1,2-		
Sample ID	Date	(fbg)	0&G	TPHwo	TPHd	TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	DCA	EDB	Ethanol
S-6-4A	10/4/1988	19 <b>-</b> 20.5				6	0.05	<0.1	0.1	<0.3					نى <u>،</u>			
S-6-5A	10/4/1988	24 - 25.5			·	<5	<0.05	<0.1	<0.1	<0.3							·	
6724	10 / 4 / 1099	0 10 5				~5	<0.05	<01	<01	<0.3								
5-7-2A	10/4/1988	9-10.5				<5 <5	<0.05	<0.1	<0.1	<0.3								
5-7-3A	10/4/1900	14 - 15.5			'	<5 <5	<0.05	<0.1	<0.1	<0.3								
5-7-4A	10/4/1900	19 - 20.5				<b>&lt;</b> 5	0.00	012		0.0								
S-8-3A	2/24/1989	14 - 15.5			,	<5	<0.05	<0.1	<0.1	<0.3	·					·		
S-8-4A	2/24/1989	19 - 20.5				<5	<0.05	<0.1	<0.1	<0.3								
S-9-3A	2/24/1989	14 - 15.5				<5	<0.05	<0.1	<0.1	<0.3								
S-9-4A	2/24/1989	19 - 20.5				<5	<0.05	<0.1	<0.1	<0.3				<sub>.</sub>				
CD 1 1E	9 /0 /1090	15				~5.0	<0.1	<0.1	<0.1	<0.3								
SR-1-13	8/9/1989 8/9/1989	13 20				< <u>5.0</u>	5.4	<0.1	2.5	2.7								
	-, -,																	
S-10-15	8/9/1989	15				<5.0	<0.05	<0.1	<0.1	<0.3								
S-10-20	8/9/1989	20				<5.0	<0.05	<0.1	<0.1	<0.3								
SR-3-10	9/19/1989	10				<5.0	0.98	<0.1	<0.1	<0.3								
SR-3-15	9/19/1989	15				54	3.9	<0.2	4.2	2.7						<u> </u>		
SR-3-20	9/19/1989	20				<5.0	<0.05	<0.1	0.2	<0.3								
SR-2-10	9/20/1989	10				<5.0	0.05	<0.1	<0.1	<0.3								
SR-2-15	9/20/1989	15				67	0.11	0.1	0.1	<0.3								
SR-2-20	9/20/1989	20				8.4	<0.05	<0.1	1.0	<0.3								
D-1	7/26/2002	3.5				<1.0	<0.005	<0.005	<0.005	<0.005	<0.5							
D-2	7/26/2002	3.5				<1.0	<0.005	<0.005	<0.005	<0.005	<0.5					,		
D-3	7/26/2002	3.5				4.0	<0.005	<0.005	0.012	0.011	<0.5							

### HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

		Depth							Ethyl-	Total						1,2-		
Sample ID	Date	(fbg)	0&G	TPHwo	TPHd	TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	DCA	EDB	Ethanol
D-4	7/26/2002	3.5				1.8	<0.005	< 0.005	0.053	0.018	<0.5							
P-1	7/26/2002	3.5				260	0.079	0.072	0.48	1.1	<0.5							
P-2	7/26/2002	3.5				<1.0	< 0.005	< 0.005	<0.005	< 0.005	<0.5							
P-3	7/26/2002	3.5				10	0.0083	<0.005	0.26	< 0.005	<0.5							
S-11-5.5	7/26/2002	5.5				<1.0	< 0.005	<0.005	<0.005	<0.005	<0.5							
S-11-10.5	7/26/2002	10.5				<1.0	< 0.005	<0.005	< 0.005	< 0.005	<0.5							
S-11-15.5	7/26/2002	15.5				<1.0	< 0.005	< 0.005	< 0.005	< 0.005	<0.5							
S-11-20.5	7/26/2002	20.5				<1.0	< 0.005	< 0.005	< 0.005	< 0.005	<0.5							
S-11-24.5	7/26/2002	24.5				<1.0	<0.005	<0.005	<0.005	<0.005	<0.5							
S-12-5.5	9/19/2002	5.5				<1.0	<0.005	< 0.005	< 0.005	<0.005	<0.5							
S-12-10.5	9/19/2002	10.5				<1.0	< 0.005	<0.005	<0.005	< 0.005	<0.5							
S-12-15.5	9/19/2002	15.5				<1.0	< 0.005	< 0.005	< 0.005	< 0.005	<0.5							
S-12-20.5	9/19/2002	20.5				<1.0	< 0.005	< 0.005	< 0.005	<0.005	<0.5							
S-12-24.5	9/19/2002	24.5				<1.0	<0.005	< 0.005	< 0.005	<0.005	<0.5							
SB-1	10/4/2004	2.5	·			<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.051	0.16						
SB-1	10/4/2004	5				<1.0	< 0.0050	< 0.0050	<0.0050	< 0.0050	<0.0050	0.063						
SB-1	10/4/2004	10.5				2.4	< 0.0050	<0.0050	< 0.0050	0.019	0.091	0.035						
SB-1	10/4/2004	15.5				<4.2	<0.021	<0.021	<0.021	<0.021	<0.021	3.6						
SB-1	10/4/2004	19.5				300	<0.50	<0.50	4.0	<0.50	1.2	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-2	10/4/2004	2.5				<1.0	0.015	<0.0050	0.0091	0.026	0.0053	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1
SB-2	10/4/2004	5				<1.0	<0.0050	< 0.0050	< 0.0050	0.0080	<0.0050	< 0.010						
SB-2	10/8/2004	10				<1.0	<0.0050	< 0.0050	<0.0050	< 0.0050	0.011	0.012						
SB-2	10/8/2004	15				<1.0	<0.0050	<0.0050	< 0.0050	< 0.0050	0.34	0.14						
SB-2	10/8/2004	19.5				890	<0.50	<0.50	15	1.0	4.1	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-2	10/8/2004	25				<4.5	<0.022	< 0.022	< 0.022	<0.022	0.12	1.8	<0.045	< 0.022	<0.022	< 0.022	<0.022	<0.45

#### HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Sample ID	Date	Depth (fbg)	0&G	TPHwo	TPHd	ТРНд	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2- DCA	EDB	Ethanol
SB-3	10/5/2004	2.5				950	5.0	51	20	110	<0.50	<2.5					'	
SB-3	10/5/2004	5				270	2.7	5.2	4.7	20	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-3	10/8/2004	10				11	0.85	1.2	0.30	1.5	<0.021	< 0.043						
SB-3	10/8/2004	15.5				1.5	0.047	0.15	0.029	0.15	< 0.0050	0.017	<0.010	<0.0050	< 0.0050	< 0.0050	< 0.0050	<0.1
SB-3	10/8/2004	19.5				<1.0	<0.0050	0.0083	<0.0050	0.012	<0.0050	<0.010	<0.010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	<0.1
SB-3	10/8/2004	25				4.5	<0.021	0.17	0.080	0.59	<0.021	<0.042						
SB-4	10/4/2004	2.5				350	<0.50	<0.50	3.3	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-4	10/4/2004	5				1.3	0.19	<0.0050	0.50	0.0098	<0.0050	<0.010	<0.010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	<0.1
SB-4	10/8/2004	10 ·				1.1	0.019	<0.0050	0.011	0.072	<0.0050	0.012						
SB-4	10/8/2004	15	`			<1.0	<0.0050	<0.0050	<0.0050	0.012	<0.0050	0.016						
SB-4	10/8/2004	19.5				<1.0	< 0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.010				•••• <sup>`</sup>		
SB-4	10/8/2004	25				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						
SB-5	10/4/2004	2.5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						
SB-5	10/4/2004	5				1.0	0.046	<0.0050	0.076	0.15	0.0070	0.011						
SB-5	10/8/2004	9.5				1.6	0.011	<0.0050	<0.0050	0.015	0.0081	0.029						
SB-5	10/8/2004	15				80	0.60	<0.50	<0.50	<0.50	0.92	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-5	10/8/2004	19.5				6.1	0.040	0.050	<0.020	0.072	0.034	0.32						
SB-7	10/5/2004	2.5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.019	0.019						
SB-7	10/5/2004	5				<1.0	< 0.0050	<0.0050	< 0.0050	< 0.0050	0.079	0.031						
SB-7	10/7/2004	10				2.8	< 0.0050	< 0.0050	<0.0050	0.0053	<0.0050	0.17						
SB-7	10/7/2004	15				11	< 0.020	< 0.020	<0.020	<0.020	0.035	0.28						
SB-7	10/7/2004	19.5				15	0.022	< 0.013	0.25	0.014	0.12	< 0.026	<0.026	<0.013	<0.013	<0.013	<0.013	<0.26
SB-7	10/7/2004	25				1.7	<0.0050	<0.0050	0.040	0.015	0.033	0.12	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	0.13
SB-8	10/8/2004	5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010					·	
SB-8	10/8/2004	10				<1.0	<0.0050	<0.0050	< 0.0050	<0.0050	0.070	0.10						

### HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

		Depth						_	Ethyl-	Total					~	1,2-		
Sample ID	Date	(fbg)	0&G	TPHwo	TPHd	TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	TBA	DIPE	EIBE	TAME	DCA	EDB	Ethanol
SB-9	10/5/2004	2.5				<1.0	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.010						
SB-9	10/5/2004	5	·	·		<1.0	<0.0050	< 0.0050	< 0.0050	<0.0050	0.023	<0.010						
SB-9	10/6/2004	10				<4.7	<0.023	<0.023	< 0.023	<0.023	<0.023	3.3						
SB-9	10/7/2004	15.5				96	<0.50	<0.50	<0.50	<0.50	<0.50	14	<1.0	<0.50	< 0.50	<0.50	<0.50	<25
SB-9	10/7/2004	21				<4.1	< 0.020	<0.020	<0.020	<0.020	<0.020	1.6	<0.041	<0.020	<0.020	<0.020	<0.020	<0.41
SB-10	10/6/2004	2.5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.055	0.057						
SB-11	10/5/2004	2.5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.023	0.035						
SB-11	10/5/2004	5				220	0.51	<0.50	4.6	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-11	10/7/2004	10				<1.0	0.055	< 0.0050	0.020	0.0059	0.067	0.029						
SB-11	10/7/2004	15.5				<50	<0.50	<0.50	< 0.50	<0.50	<0.50	14						
SB-11	10/7/2004	20				2.6	< 0.0050	<0.0050	0.0098	0.0054	0.038	0.48	<0.010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	<0.1
SB-11	10/7/2004	25				3.2	0.017	<0.0050	0.049	<0.0050	0.036	0.67	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1
SB-12	10/6/2004	2.5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						
SB-12	10/6/2004	5				<1.0	< 0.0050	< 0.0050	<0.0050	<0.0050	0.0068	<0.010						
SB-12	10/6/2004	10				<1.0	< 0.0050	<0.0050	<0.0050	0.0065	0.050	0.061						
SB-12	10/6/2004	15				<5.0	<0.025	<0.025	<0.025	<0.025	0.026	8.6			,			
SB-12	10/6/2004	20				430	<0.50	<0.50	1.6	<0.50	0.63	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-12	10/6/2004	24.5				<4.7	<0.023	<0.023	<0.023	< 0.023	2.3	<0.023						
SB-12	10/6/2004	26				280	<0.50	0.71	1.3	2.7	0.51	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-13	10/5/2004	3				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.0058	<0.010			·	<b></b> '		
SB-13	10/5/2004	5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						
SB-13	10/6/2004	10				3.6	<0.0050	< 0.0050	0.0068	0.013	<0.0050	0.028						
SB-13	10/6/2004	15				2.7	0.0089	< 0.0050	<0.0050	0.0087	0.076	0.047						
SB-13	10/6/2004	20				<1.0	<0.0050	<0.0050	0.0099	<0.0050	0.046	0.025	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1
SB-14	10/5/2004	2.5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						

# HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Sample ID	Date	Depth (fbg)	0&G	TPHwo	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2- DCA	EDB	Ethanoi
SB-14	10/5/2004	5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.014	0.016						
SB-14	10/7/2004	10				1.9	0.043	< 0.0050	0.024	0.013	0.0063	0.028			<del></del>			
SB-14	10/7/2004	15			. <del></del> `	8.2	0.041	< 0.020	0.064	0.045	0.76	0.23						
SB-14	10/7/2004	20				<50	<0.50	<0.50	0.56	<0.50	0.80	3.0	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-14	10/7/2004	25				2.3	<0.0050	<0.0050	0.059	0.077	0.26	0.36	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1
CD 15	10/5/2004	Э Е				<10	<0.0050	<0.0050	<0.0050	<0.0050	0 0074	<0.010						
SB-15	10/5/2004	2.5 E				5.0	<0.0050	<0.0050	<0.0050	0.029	<0.0050	0.069	<0.010	<0.0050	< 0.0050	<0.0050	<0.0050	< 0.1
SD-15 SB-15	10/5/2004 10/7/2004	15				1.2	0.045	<0.0050	< 0.0050	< 0.0050	0.28	0.12	·					
SB-15	10/7/2004	20				470	< 0.50	<0.50	9.5	3.8	1.2	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25
SB-15	10/7/2004	25				<3.1	0.052	<0.016	0.56	0.18	0.78	3.4	<0.031	<0.016	<0.016	<0.016	<0.016	<0.31
SB-16	10/6/2004	2.5				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						
CPT-3	2/15/2005	25				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.33						
CPT-3	2/15/2005	35		· ,		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.56			·			
CPT-3	2/15/2005	45				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						
CPT-5	2/18/2005	25				<1.0	<0.0050	<0.0050	0.018	0.020	<0.0050	<0.010						
CPT-5	2/18/2005	35				<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						
CPT-5	2/18/2005	45		<del>-;-</del>		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010						
WO-1-9	2/14/2007	9	<1,500	)	<5.0	0.88	<0.00099	0.0017	0.010	0.057	<0.0020	<0.020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	,
SB-18 @ 10'	5/21/2010	10				30	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050			<b></b>	. <del></del>		
SB-18 @ 15'	5/21/2010	15				30	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	< 0.050						
SB-18 @ 18'	5/21/2010	18	. <u></u>			310	<0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.050						
SB-18 @ 20'	5/21/2010	20			·	1.3	<0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050	< 0.050						
SB-18 @ 25'	5/21/2010	25				0.60	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						
SB-18 @ 30'	5/21/2010	30		·		<0.50	<0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	<0.050						

#### HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Sample ID	Date	Depth (fbg)	0&G	TPHwo	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	ТВА	DIPE	ETBE	TAME	1,2- DCA	EDB	Ethanol
SB-18 @ 35'	5/21/2010	35				<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	·					
SB-18 @ 40'	5/21/2010	40				<0.50	< 0.0050	< 0.0050	<0.0050	<0.0050	< 0.0050	<0.050						
SB-18 @ 45'	5/21/2010	45				<0.50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	<0.050						
SB-18 @ 50'	5/21/2010	50			·	<0.50	< 0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	< 0.050						
SB-18 @ 55'	5/21/2010	55		·		<0.50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050						
SB-18 @ 60'	5/21/2010	60		***	·	<0.50	< 0.0050	< 0.0050	< 0.0050	<0.0050	< 0.0050	< 0.050						'
SB-17 @ 10'	6/8/2010	10				3.5	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	< 0.050						
SB-17 @ 15'	6/8/2010	15				1.9	<0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050	< 0.050						
SB-17 @ 20'	6/8/2010	20				1,100	<2.0	<2.0	<2.0	<2.0	<2.0	<20						
SB-17 @ 25'	6/8/2010	25		:		<0.50	<0.0050	< 0.0050	<0.0050	<0.0050	< 0.0050	<0.050						
SB-17 @ 30'	6/8/2010	30				<0.50	<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050						
SB-17 @ 35'	6/8/2010	35				<0.50	< 0.0050	< 0.0050	<0.0050	< 0.0050	<0.0050	< 0.050						
SB-17 @ 40'	6/8/2010	40				<0.50	<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	<del></del> .					
SB-17@45'	6/8/2010	45				<0.50	<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050						
SB-17 @ 50'	6/8/2010	50	:			22	<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050						
SB-17 @ 55'	6/8/2010	55				< 0.50	<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050						
SB-17 @ 60'	6/8/2010	60				<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						
Shallow So	il (≤10 fbg) ES	L <sup>b</sup> :	NA	2,500	83	83	0.044	2.9	3.3	2.3	0.023	0.075	NÅ	NA	NA	0.0045	0.00033	NA
Deen Soil (	10 fbg) FSI b		NA	5,000	83	83	0.044	2.9	3.3	2.3	0.023	0.075	NA	NA	NA	0.0045	0.00033	NA

#### Notes:

All results in milligrams per kilogram (mg/kg) unless otherwise indicated.

fbg = Feet below grade

O&G = Oil and grease as hexane extractable material by EPA Method 1664 A (Modified)

TPHwo = Total petroleum hydrocarbons as waste oil, method unknown

TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015 (Modified)

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260; before August 26, 2002 analyzed by EPA Method 8015 Benzene, ethylbenzene, toluene, and xylenes analyzed by EPA Method 8260; before August 26, 2002 analyzed by EPA Method 8015 MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

#### HISTORICAL SOIL ANALYTICAL DATA - OIL AND GREASE, TPH, BTEX, FUEL OXYGENATES, LEAD SCAVENGERS, AND ETHANOL SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

		Depth							Ethyl-	Total					,	1,2-		
Sample ID	Date	(fbg)	0&G	TPHwo	TPHd	TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	DCA	EDB	Ethanol
TBA = Tertiar	y-butyl alcol	hol analyz	zed by El	PA Metho	d 8260B													
DIPE = Di-iso	propyl ether	analyzed	l by EPA	Method 8	3260B													
ETBE = Ethyl	tertiary-buty	yl ether an	alyzed b	oy EPA M	ethod 82	60B												
TAME = Terti	iary-amyl me	ethyl ether	r analyze	ed by EPA	Method	8260B												
1,2-DCA = 1,2	2-Dichloroetl	nane analy	vzed by I	EPA Meth	od 82601	В												
EDB = 1,2-dib	romometha	ne analyze	ed by EP	A Method	l 8260B													
Ethanol analy	yzed by EPA	Method 8	3260B															
<x =="" dete<="" not="" td=""><td>cted at repor</td><td>rting limit</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></x>	cted at repor	rting limit	x															
= Not anal	vzed	Ũ																
ND = Not det	ected; see lal	boratory a	nalytica	l report fo	r constit	uent-spe	cific report	ing limits										
ESL = Enviror	nmental scre	ening leve	ને			•	•	U										
NA = No app	licable ESL	Ū																
Shading indic	ates that san	nple locati	ion subse	equently o	over-exca	vated, r	esults are n	ot represer	ntative of re	sidual soil.								
Results in bol	<b>d</b> equal or e	ceed app	licable E	SL				•										
a = Result is f	or undifferer	ntiated xyl	lenes and	d ethylber	izene													

b = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is a potential source of drinking water (Tables A and C of Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

### HISTORICAL SOIL ANALYTICAL DATA - CHLORINATED HYDROCARBONS, METALS, PNAS, PCP, AND PCBS SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Sample ID	Date	Depth (fbg)	Chlorinated Hydrocarbons	Cd	Cr	Pb	Organi c Pb	Ni	Zn	PNAs	РСР	PCBs
S-B	1/22/1986	4 - 5.5				9 <sup>a</sup>	<0.1 <sup>a</sup>					
S-B	1/22/1986	8 - 9.5				$11^{a}$	<0.1 <sup>a</sup>					
S-B	1/22/1986	11.5 - 13				9 <sup>a</sup>	<0.1 <sup>a</sup>					
	1 100 1100 (					1 0 <sup>a</sup>	-0 1 <sup>a</sup>					
S-C	1/22/1986	4 - 5.5				4.9	<0.1					
S-C	1/22/1986	7 - 8.5				6.8"	<0.1"					
S-C	1/22/1986	11.5 - 13				9.1ª	<0.1ª					
S-D	1/23/1986	4 - 5 5				4.2 <sup>a</sup>	<0.1 <sup>a</sup>					
S-D	1/23/1986	7-85				$5.2^{a}$	$0.2^{a}$					
S-D	1/23/1986	11.5 - 13				7.3 <sup>a</sup>	<0.1 <sup>a</sup>					
S-E	1/23/1986	4 - 5.5				$5.1^{a}$	<0.1 <sup>a</sup>					
S-E	1/23/1986	7 - 8.5				9.2 <sup>a</sup>	< 0.1 <sup>a</sup>					
S-E	1/23/1986	11.5 - 13				9.1 <sup>a</sup>	<0.1 <sup>a</sup>					
ST-1	10/28/1987	13.0 - 14.5				4.2						
ST-2	10/28/1987	13.0 - 14.5				4.6						
S-1	10/28/1987	14.0 - 15.5				7.0						
S-1	10/28/1987	19.0 - 20.5				6.4						
S-1	10/28/1987	33.5 - 35.0				4.2						
S-2	10/28/1987	14.0 - 15.5				5.4						
S-2	10/28/1987	19.0 - 20.5				7.1						
S-2	10/28/1987	33.5 - 35.0				5.4						
WO-1-9	2/14/2007	9	ND	<0.50	52	8.0		53	56	ND	<0.83	<0.096
Shallow Soi	il (≤10 fbg) ES		Various	7.4	750	750	NA	150	600	Various	5.0	0.74
Deep Soil (>	10 fbg) ESL <sup>b</sup>	:	Various	39	5,000	750	NA	260	5000	Various	99	6.3

### Notes:

All results in milligrams per kilogram (mg/kg) unless otherwise indicated.

fbg = Feet below grade

Chlorinated hydrocarbons by EPA Method 8260B; see laboratory analytical report for a complete list of specific constituents

Cd = Cadmium by EPA Method 6010B

Cr = Chromium by EPA Method 6010B

Pb = Lead by EPA Method 6010B

### HISTORICAL SOIL ANALYTICAL DATA - CHLORINATED HYDROCARBONS, METALS, PNAS, PCP, AND PCBS SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Organic Pb = Organic lead analysis, method unknown

Ni = Nickel by EPA Method 6010B

Zn = Zinc by EPA Method 6010B

PNAs = Polynuclear aromatics by EPA Method 8270C; see laboratory analytical report for a complete list of specific constituents

PCP = Pentachlorophenol by EPA Method 8270C

PCBs = Polychlorinated biphenyls by EPA Method 8082; see laboratory analytical report for a complete list of specific constituents

<x = Not detected at reporting limit x

ND = Not detected; see laboratory analytical report for constituent-specific reporting limits

--- = Not analyzed

NA = No applicable ESL

ESL = Environmental screening level

Shading indicates that sample location subsequently over-excavated, results are not representative of residual soil. Results in **bold** equal or exceed applicable ESL

a = Analytical method not known

b = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is not a source of drinking water (Tables A and C of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

				2			MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	ТОС	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)						
S-1	11/6/1987	920	230	<5	150	150	·													
S-1	2/14/1988	3,500	1,300	<40	500	500					·									
S-2	11/6/1987	16,000	870	100	2,700	2,700														
S-2	2/14/1988	1,800	440	<10	140	140														
S-2	10/13/1988	550	110	1	45	15					<u></u>								·	
S-2	1/31/1989	620	170	2	62	14		·												
S-2	3/7/1989	1,900	260	270	130	260											·			
S-2	6/26/1989	320	88	1	32	10														
S-2	9/8/1989	230	80	1	30	15		<del></del>												
S-2	12/14/1989	160	56	0.5	21	3														
S-2	3/5/1990	710	57	<0.5	<0.5	88									,					
S-2	6/14/1990	110	39	0.5	11	2		·												
S-2	10/2/1990	290	84	1.7	160	8.1										·				
S-2	12/18/1990	61	18	1.4	2.2	2.4							·							
S-2	3/20/1991	110	30	2.2	10	7		· · ·								329.21				
S-2	6/26/1991	50a	6.3	<0.5	3.3	1.3										329.21				
S-2	9/5/1991	90	12	3.2	2.5	2.3	·									329.21				
S-2	12/13/1991	<50	12	<0.5	<0.5	<0.5						·				329.21	15.85	313.36		
S-2	3/11/1992	<30	<0.3	<0.3	<0.3	<0.3										329.21	14.94	314.27		
S-2	6/24/1992	<50	0.9	<0.5	<0.5	<0.5										329.21	15.78	313.43		
S-2	9/17/1992	78	2.6	1.3	1.3	0.9										329.21	15.03	314.18		
S-2	12/11/1992	<50	0.8	<0.5	<0.5	<0.5										329.21	14.81	314.40		
S-2	2/4/1993	55	1.3	0.7	0.7	<0.5										329.21				
S-2	6/3/1993	<50	0.7	<0.5	<0.5	<0.5										329.21				
S-2	9/15/1993	<50	<0.5	<0.5	<0.5	<0.5									·	329.21	14.63	314.58	·	
S-2	12/9/1993	<50	<0.5	<0.5	<0.5	<0.5									·	329.21	14.70	314.51		
S-2	6/16/1994	<50	0.8	<0.5	0.7	<0.5										329.21	14.94	314.27		
S-2	9/13/1994	<50	<0.5	<0.5	<0.5	<0.5										329.21	15.17	314.04		
S-2	6/21/1995	<50	<0.5	<0.5	<0.5	<0.5										329.21	14.25	314.96		
S-2	6/12/1996	<50	6.1	<0.5	<0.5	<0.5	48					<sup>-</sup>				329.21	14.31	314.90		
S-2	6/25/1997	120	25	0.59	2.4	8.7	130									329.21	14.40	314.81		4.4
S-2	6/19/1998	450	96	<2.5	4	19	180									329,21	13.72	315.49		2.8
S-2	6/17/1999	312	74.4	2.04	1.02	<1.00	147	·								329.21	13.97	315.24		3.7

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	T	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-2	6/15/2000	1,050	261	<5.00	7.54	11.4	13,500	9,850 b			1					329.21	14.25	314.96		3.3
S-2	11/29/2000	<250	3.75	<2.50	<2.50	<2.50	12,400	10,700 b								329.21	14.82	314.39		2.2
S-2	3/7/2001	<500	14.7	<5.00	<5.00	<5.00	8,610							·	·	329.21	13.70	315.51		2.3
S-2	6/18/2001	<2,000	<20	<20	<20	<20		7,100								329.21	14.56	314.65		
S-2	9/17/2001	<2,000	<10	<10	<10	<10		7,500	<10	<10	<10	680			<500	329.21	15.18	314.03		
S-2	12/31/2001	<1,000	<10	<10	<10	<10		3,800				· ·				329.21	13.19	316.02		
S-2	3/13/2002	<1,000	65	<10	13	<10		6,500			· ·					329.21	15.03	314.18		
S-2	6/18/2002	520	28	<5.0	<5.0	<5.0		2,800						·		329.21	15.60	313.61		
S-2	9/27/2002	<1,000	<10	<10	<10	<10		4,200								328.77	14.90	313.87		
S-2	12/27/2002	<1,000	<10	<10	<10	<10		4,300	<10	<10	<10	5,600	<10	<10	·	328.77	14.40	314.37		
S-2	3/24/2003	<2,500	28	<25	<25	<50		1,300			·			·		328.77	14.86	313.91		
S-2	5/9/2003	<2,500	36	<25	35	<50	·	4,000				6,200		·		328.77	13.45	315.32		
S-2	7/8/2003	<2,000	<20	<20	<20	<40		3,200								328.77	20.10	308.67		
S-2	10/15/2003	960 e	6.9	<2.5	9.0	<5.0		90				2,400				328.77	16.67	312.10		
S-2	1/6/2004	690	8.3	<0.50	0.72	2.8		82				860				328.77	21.00	307.77		
S-2	4/7/2004	980 e	12	<2.5	<2.5	<5.0	*	28				2,500				328.77	16.62	312.15		
S-2	7/27/2004	62	1.5	<0.50	<0.50	<1.0		16	<2.0	<2.0	<2.0	550			<50	328.77	16.64	312.13		
S-2	10/29/2004	<250	<2.5	<2.5	<2.5	<5.0		22	<10	<10	<10	1,800			<250	328.77	16.43	312.34		
S-2	1/6/2005	<250	<2.5	<2.5	<2.5	<5.0		21	<10	<10	<10	2,700				328.77	16.37	312.40		
S-2	4/14/2005	<50	<0.50	< 0.50	<0.50	<0.50		14	<0.50	<0.50	<0.50	290			<5.0	328.77	18.54	310.23		
S-2	7/29/2005	1,300 g	<5.0	<5.0	<5.0	<10		19	<20	<20	<20	1,000			<500	328.77	21.37	307.40		
S-2	10/20/2005	1,300	13	<1.0	9.8	2.6	·	26	<4.0	<4.0	<4.0	730			<100	328.77	21.88	306.89		
S-2	1/26/2006	3,820	16.3	<0.500	5.78	<0.500		25.8	<0.500	<0.500	<0.500	445			<50.0	328.77	21.15	307.62		
S-2	4/24/2006	4,720	68.8	1.44	115	8.31		1,600	<0.500	<0.500	<0.500	1,010			<50.0	328.77	13.80	314.97		
S-2	7/12/2006	<50.0	14.4	<0.500	<0.500	<1.50		70.9	<0.500	<0.500	<0.500	1,660			<50.0	328.77	14.19	314.58		
S-2	10/20/2006	108	5.52	< 0.500	0.690	<0.500		17.9	<0.500	<0.500	<0.500	382			<50.0	328.77	14.13	314.64		
S-2	1/22/2007	<50	0.40 i	<0.50	<0.50	<1.0		16	<1.0	<1.0	<1.0	450			<150	328.77	14.05	314.72		
S-2	4/13/2007	52 k	0.53	<1.0	0.22 m	<1.0		14	<2.0	<2.0	<2.0	660			<100	328.77	14.09	314.68	·	
S-2	7/9/2007	97 k,l	4.6	<1.0	<1.0	<1.0		23	<2.0	<2.0	<2.0	1,500			<100	328.77	13.33	315.44		
S-2	10/22/2007	120 k	0.23 m	<1.0	<1.0	<1.0		13	<2.0	<2.0	<2.0	2,400			<100	328.77	14.70	314.07		
S-2	1/9/2008	66 k	1.5 m	<5.0	<5.0	<5.0		12	<10	<10	<10	1,500			<500	328.77	13.65	315.12		
S-2	4/11/2008	450	3.8	<5.0	<5.0	<5.0		37	<10	<10	<10	4,300			<500	328.77	14.47	314.30		·
S-2	7/29/2008	370	5.3	<5.0	<5.0	<5.0		18	<10	<10	<10	2,300			<500	328.77	15.00	313.77		
S-2	10/29/2008	100	2.3	<1.0	<1.0	<1.0		11	<2.0	<2.0	<2.0	710			<100	328.77	15.10	313.67		

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### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2 <b>-</b>				Depth to	GW	SPH	DO
Well ID	Date	ТРРН	В	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	ТОС	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)											
S-2	1/21/2009	990	37	<1.0	8.8	1.4		83	<2.0	<2.0	<2.0	1,200			<100	328.77	13.89	314.88		
S-2	4/16/2009	2,100	54	1.2	21	3.0		88	<2.0	<2.0	<2.0	930			<100	328.77	13.75	315.02		
S-2	7/9/2009	620	16	<1.0	5.6	<1.0		35	<2.0	<2.0	<2.0	900			<100	328.77	15.18	313.59		
S-2	1/11/2010	3,300	39	1.5	23	4.1		51	<2.0	<2.0	<2.0	600			<100	328.77	13.68	315.09		
S-2	1/21/2011	2,000	21	0.99	21	3.0		25	<1.0	<1.0	<1.0	820			<150	328.77	13.75	315.02		
S-3	2/14/1988	<50	<0.5	<1	<4	<4														
S-3	10/13/1988	<50	<0.5	<1	<1	<3														
S-3	1/31/1989	<50	<0.5	<1	<1	<3											·			
S-3	3/7/1989	<50	<0.5	<1	<1	<3														
S-3	6/26/1989	<50	<0.5	<1	<1	<3												<sub>1</sub>		
S-3	9/8/1989	<50	<0.5	<1	<1	<3												<del></del>		
S-3	12/14/1989	<50	<0.5	<0.5	<0.5	<1														
S-3	3/5/1990	<50	<0.5	<0.5	<0.5	<1														
S-3	6/14/1990	<500	<0.5	<0.5	<0.5	<1														
S-3	10/2/1990	<50	<0.5	<0.5	<0.5	1.0														
S-3	12/18/1990	<50	<0.5	1.6	<0.5	2.0														
S-3	3/20/1991	70	2.3	8.9	4	23										327.67				
S-3	6/26/1991	<50	<0.5	<0.5	<0.5	<0.5										327.67				
S-3	9/5/1991	<50	<0.5	<0.5	<0.5	<0.5	v									327.67				
S-3	12/13/1991	<50	<0.5	<0.5	<0.5	<0.5								·		327.67	13.87	313.80		
S-3	3/11/1992	<30	<0.5	<0.5	<0.5	<0.5										327.67	13.05	314.62		
S-3	6/24/1992	<50	<0.5	<0.5	<0.5	<0.5										327.67	13.86	313.81		
S-3	9/17/1992	<50	<0.5	<0.5	<0.5	<0.5									*	327.67	13.01	314.66		
S-3	12/11/1992	<50	<0.5	<0.5	<0.5	<0.5			·							327.67	13.00	314.67		
S-3	2/4/1993	<50	<0.5	<0.5	<0.5	<0.5										327.67				
S-3	6/3/1993	<50	<0.5	<0.5	<0.5	<0.5										327.67	12.00			
S-3	9/15/1993															327.67	13.02	314.65		
S-3	12/9/1993							'							、	327.67		210 50		
S-3	9/13/1994															327.67	15.17	312.30 31E 10		
S-3	6/21/1995	50	4.1	<0.5	20	1.2										327.07 207.67	12.47	313.10 315 1 <i>1</i>		
S-3	6/12/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5									327.07	12.00	315.14		1.8
S-3	6/25/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5									327.07	12.04	215.03		1.0 4 1
S-3	6/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5									321.01	11./4	313.93		7.1

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# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	ТОС	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-3	6/17/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00									327.67	12.35	315.32		2.8
S-3	6/15/2000	<50.0	<0.500	< 0.500	<0.500	< 0.500	<2.50									327.67	12.51	315.16		3.2
S-3	11/29/2000	<50.0	<0.500	< 0.500	< 0.500	< 0.500	<2.50									327.67	12.84	314.83		1.0
S-3	3/7/2001	<50.0	<0.500	< 0.500	< 0.500	< 0.500	<2.50		<sup>′</sup>							327.67	12.42	315.25		2.8
S-3	6/18/2001	<50	0.66	1.1	<0.50	0.51		0.66								327.67	13.74	313.93		·
S-3	9/17/2001	<50	0.73	0.96	<0.50	0.61		<5.0								327.67	13.25	314.42		
S-3	12/31/2001	<50	<0.50	< 0.50	<0.50	<0.50		<5.0								327.67	12.38	315.29		
S-3	3/13/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0				'				327.67	13.16	314.51		
S-3	6/18/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0	<del></del>							327.67	13.55	314.12		
S-3	9/27/2002	<50	< 0.50	<0.50	<0.50	<0.50		<5.0								327.40	13.32	314.08		
S-3	12/27/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0	<2.0	<2.0	<2.0	<50	<2.0	<2.0		327.40	12.55	314.85		
S-3	3/24/2003	<50	<0.50	<0.50	<0.50	<1.0		<5.0								327.40	12.71	314.69		
S-3	5/9/2003	<50	< 0.50	<0.50	<0.50	<1.0		<0.50				<5.0				327.40	12.27	315.13		
S-3	7/8/2003	<50	<0.50	<0.50	<0.50	<1.0		1.7				<5.0				327.40	14.10	313.30		
S-3	10/15/2003	<50	<0.50	< 0.50	<0.50	<1.0		<0.50				<5.0				327.40	14.64	312.76		
S-3	1/6/2004	<50	<0.50	<0.50	<0.50	<1.0		<0.50	'			<5.0				327.40	15.11	312.29		
S-3	4/7/2004	<50	<0.50	<0.50	<0.50	<1.0		<0.50				<5.0				327.40	14.36	313.04		
S-3	7/27/2004	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0			<50	327.40	14.21	313.19		
S-3	10/29/2004	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0			<50	327.40	14.03	313.37		
S-3	1/6/2005	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0				327.40	14.08	313.32		
S-3	4/14/2005	<50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<5.0			<5.0	327.40	12.16	315.24		
S-3	7/29/2005	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0			<50	327.40	15.29	312.11		
S-3	10/20/2005	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0			<50	327.40	15.90	311.50		
S-3	1/26/2006	<50.0	< 0.500	< 0.500	<0.500	<0.500		< 0.500	<0.500	<0.500	<0.500	59.5			<50.0	327.40	15.00	312.40		
S-3	4/24/2006	<50.0	0.610	0.640	<0.500	<0.500		< 0.500	< 0.500	<0.500	< 0.500	13.0			<50.0	327.40	12.03	315.37		
S-3	7/12/2006	<50.0	< 0.500	<0.500	<0.500	<1.50		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0	327.40	12.35	315.05		
S-3	10/20/2006	<50.0	<0.500	<0.500	<0.500	<0.500		< 0.500	<0.500	<0.500	< 0.500	<10.0			<50.0	327.40	12.46	314.94		
S-3	1/22/2007	<50	<0.50	<0.50	<0.50	<1.0		<1.0	<1.0	<1.0	<1.0	<10			<150	327.40	13.05	314.35		
S-3	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	12.50	314.90		
S-3	7/9/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	12.04	315.36		
S-3	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	13.02	314.38		
S-3	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	12.21	315.19		
S-3	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	12.80	314.60		
S-3	7/29/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	13			170	327.40	13.25	314.15		
	, ,																			

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	B	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)						
S-3	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	13.40	314.00		
S-3	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	12.41	314.99		
S-3	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	12.20	315.20		
S-3	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	327.40	13.49	313.91		
S-3	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10	·		<100	327.40	12.39	315.01		
S-3	7/6/2010															327.40	12.80	314.60		
S-3	1/21/2011	<50	<0.50	<0.50	<0.50	<1.0	·	<1.0	<1.0	<1.0	<1.0	<10			<150	327.40	12.53	314.87		
S-4	2/14/1988	5,100	160	8	730	730			<sup>`</sup>									<u>`</u> _		
S-4	10/13/1988	530	24	1	25	16						· `		·						
S-4	1/31/1989	1,100	33	2	20	24														
S-4	3/7/1989	650	37	1	35	27														
S-4	6/26/1989	670	110	<1	85	71				·										
S-4	9/8/1989	380	32	<1	36	26														
S-4	12/14/1989	210	21	<0.5	30	23				·										
S-4	3/5/1990	350	43	<0.5	24	47									·					
S-4	6/14/1990	430	74	<0.5	71	46														
S-4	10/2/1990	700	74	2.2	100	55														
S-4	12/18/1990	1,400	180	2.9	280	230														
S-4	3/20/1991	1,200	100	<2.0	210	130										328.53		·		
S-4	6/26/1991	220	14	<0.5	34	17										328.53				
S-4	9/5/1991	580	31	0.8	53	26										328.53				
S-4	12/13/1991	370	24	0.9	1.3	46										328.53	15.20	313.33		
S-4	3/11/1992	1,600	23	1.2	12	20										328.53	14.37	314.16		
S-4	6/24/1992	480	48	<1.0	95	22										328.53	15.30	313.23		
S-4	9/17/1992	260	35	1.2	51	7.8										328.53	14.17	314.36		
S-4	12/11/1992	270	34	0.8	28	4.5										328.53	14.18	314.35		
S-4	2/4/1993	1,100	12	<5.0	89	100										328.53				
S-4	6/3/1993	210	48	1.1	42	4										328.53				
S-4	9/15/1993	700	21	<1.0	110	91										328.53	13.86	314.67		
S-4	12/9/1993	250	39	<0.5	3.8	2.6										328.53	14.16	314.37		
S-4	3/4/1994	150	25	1.4	6.8	2.8		<u></u>								328.53	14.17	314.36		
S-4 (D)	3/4/1994	140	28	0.8	7.9	3.2										328.53	14.17	314.36		
S-4	6/16/1994	90	12	<0.5	1.8	2.4							1			328.53	14.14	314.39		

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

bate         TPH         B         T         E         X         No         No         No         CA         DD         Dimenol         TCC         Wate         Entomic         Thebress         Reading           S4<(1)         6/16/1994         80         -23         -55         1.5         0.9         - <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>MTBE</th> <th>MTBE</th> <th></th> <th></th> <th>·</th> <th></th> <th>1,2-</th> <th></th> <th></th> <th></th> <th>Depth to</th> <th>GW</th> <th>SPH</th> <th>DO</th>								MTBE	MTBE			·		1,2-				Depth to	GW	SPH	DO
(mg/L)         (mg/L)<	Well ID	Date	TPPH	B	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
S4 (D) $6/16/1994$ $80$ $59$ $0.5$ $1.5$ $0.9$ $$			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S4       9/13/1994       <50       23       <0.5       49       24       -	S-4 (D)	6/16/1994	80	5.9	<0.5	1.5	0.9										328.53	14.14	314.39		
GA (D)         9/13/1994         50         23         60.5         4         23         -	S-4	9/13/1994	<50	23	<0.5	4.9	2.4									, <del></del>	328.53	14.42	314.11		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4 (D)	9/13/1994	<50	23	<0.5	4	2.3										328.53	14.42	314.11		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4	6/21/1995	270	34	1.4	25	7.6		·		,						328.53	13.82	314.71		
S4       6/12/1996       360       52       0.5       v0.5	S-4 (D)	6/21/1995	280	35	2.1	26	8.4										328.53	13.82	314.71		
S4 (D)       6/12/196       430       54       61.2       7.2       21       96   <	S-4	6/12/1996	360	52	<0.5	<0.5	<0.5	92				<b></b> `					328.53	13.64	314.89		
S4       6/25/1997       6700       93       1,200       240       1,300       6,900       6,800            228,53       13.74       314.79        0.6         S4       6/19/1998       3,500       56       15       140       670       2,100   <	S-4 (D)	6/12/1996	430	54	<1.2	72	21	96									328.53	13.64	314.89		
S4       6/19/1998       3,500       56       15       140       670       2,100	S-4	6/25/1997	6,700	93	1,200	240	1,300	6,900	6,800								328.53	13.74	314.79		0.6
S4 (D)       6/19/1998       3,000       51       14       110       530       2,000 <t< td=""><td>S-4</td><td>6/19/1998</td><td>3,500</td><td>56</td><td>15</td><td>140</td><td>670</td><td>2,100</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td> '</td><td>328.53</td><td>12.55</td><td>315.98</td><td></td><td>0.8</td></t<>	S-4	6/19/1998	3,500	56	15	140	670	2,100								'	328.53	12.55	315.98		0.8
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4 (D)	6/19/1998	3,000	51	14	110	530	2,000									328.53	12.55	315.98		0.8
54       6/15/2000       <500	.S-4	6/17/1999	1,510	28.4	9.84	176	132	1,780					<b></b> `				328.53	13.24	315.29		4.8
S4       11/29/2000 $\leq 500$ $\leq 5.00$ $\leq 5.00$ $\leq 5.00$ $\leq 5.00$ $\leq 1.00$ $=$ <	S-4	6/15/2000	<500	12.0	<5.00	31.0	22.8	12,200							<b></b>		328.53	13.65	314.88		2.1
S4       3/7/2001       <500	S-4	11/29/2000	<500	<5.00	<5.00	<5.00	<5.00	12,100		·							328.53	14.23	314.30		1.8
S4       6/18/2001       <100       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10       <11       <10	S-4	3/7/2001	<500	5.44	<5.00	6.49	<5.00	11,400	14,500		<u> </u>						328.53	13.15	315.38		2.4
S4       9/17/2001 $<500$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<50$ $<-1$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$ $<0$	S-4	6/18/2001	<1.000	<10	<10	<10	<10		3,500			·			·		328.53	13.81	314.72		
S4       12/31/2001       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10       <10	S-4	9/17/2001	<500	<5.0	<5.0	<5.0	<5.0		7,700							· · ·	328.53	14.29	314.24		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4	12/31/2001	<1.000	<10	<10	<10	<10		3,800						·		328.53	13.44	315.09		
S4       6/18/2002       <100	S-4	3/13/2002	<2.500	<25	<25	<25	<25		18,000		<b></b>						328.53	14.42	314.11		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4	6/18/2002	<100	1.1	<1.0	<1.0	<1.0		530								328.53	15.19	313.34		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4	9/27/2002	<200	<2.0	<2.0	<2.0	<2.0		1,100								328.11	14.32	313.79		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4	12/27/2002	280	3.5	<2.5	17	4.7		390	<2.5	<2.5	<5.0	9,000	<2.5	<2.5		328.11	13.50	314.61		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4	3/24/2003	<2.500	<25	<25	<25	<50		780								328.11	14.56	313.55		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4	5/9/2003	<2.500	<25	<25	<25	<50		1,200				18,000	´			328.11	13.20	314.91		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S-4	7/8/2003	<2.500	<25	<25	<25	<50		1,700				8,700			·	328.11	20.87	307.24		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S_4	10/15/2003	<2.500	<25	<25	<25	<50		280				11,000				328.11	16.15	311.96		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S_4	1/6/2004	3,500	< 5.0	19	190	570		58	··			9,600				328.11	21.64	306.47		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S_4	4/7/2004	<1.000	<10	<10	<10	<20		110				9,900				328.11	20.89	307.22		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S_4	7/27/2004	<1,000	<10	<10	<10	<20		<10	<40	<40	<40	10,000			<1,000	328.11	20.78	307.33		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5-1 5-1	10/29/2004	<1,000	<10	<10	<10	<20		110	/ <40	<40	<40	5,600			<1,000	328.11	20.53	307.58		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5-4 5-4	1/6/2005	<1,000	<10	<10	<10	<20		<10	<40	<40	<40	6,500				328.11	20.44	307.67		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S_4	4/14/2005	<250	<2.5	<2.5	3.1	<2.5		120	<2.5	<2.5	<2.5	6,000			<25	328.11	18.60	309.51	·	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	S_4	7/29/2005	<250	<2.5	<2.5	<2.5	<5.0		4.4	<10	<10	<10	3,100			<250	328.11	21.03	307.08		
S-4 1/26/2006 <50.0 <0.500 <0.500 <0.500 < 0.950 <0.500 <0.500 <0.500 723 < <50.0 328.11 21.10 307.01	5.4	10/20/2005	<250	<2.5	<2.5	<2.5	<5.0	·	<2.5	<10	<10	<10	2,700			<250	328.11	21.62	306.49		
	S-4	1/26/2006	<50.0	< 0.500	< 0.500	<0.500	<0.500		0.950	<0.500	<0.500	<0.500	723			<50.0	328.11	21.10	307.01		

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	B	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-4	4/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500		79.4	<0.500	<0.500	<0.500	1,310			<50.0	328.11	13.24	314.87		
S-4	7/12/2006	<50.0	4.42	< 0.500	29.1	36.5		230	<0.500	<0.500	0.930	1,530			<50.0	328.11	13.45	314.66		
S-4	10/20/2006	1,150	5.30	0.990	41.5	2.79		208	<0.500	<0.500	<0.500	2,160			<50.0	328.11	13.63	314.48		
S-4	1/22/2007	550	4.8	<2.5	30	<5.0		130	<5.0	<5.0	<5.0	3,000			<750	328.11	14.32	313.79	<b></b> '	
S-4	4/13/2007	320 k,l	0.48 m	<1.0	3.3	<1.0		18	<2.0	<2.0	<2.0	390			<100	328.11	13.68	314.43		
S-4	7/9/2007	240 k	1.5	0.32 m	6.9	<1.0		59	<2.0	<2.0	<2.0	1,900			<100	328.11	12.78	315.33		
S-4	10/22/2007	170 k	1.3 m	<5.0	3.8 m	<5.0		36	<10	<10	<10	1,600	·		<500	328.11	14.26	313.85	+	
S-4	1/9/2008	85 k	<2.5	<5.0	1.3 m	<5.0		26	<10	<10	<10	1,700			<500	328.11	13.40	314.71		
S-4	4/11/2008	430	<2.5	<5.0	<5.0	<5.0		49	<10	<10	<10	3,100			<500	328.11	14.00	314.11		
S-4	7/29/2008	190	1.1	<1.0	1.3	<1.0	·	24	<2.0	<2.0	<2.0	1,500			<100	328.11	14.64	313.47		
S-4	10/29/2008	180	1.3	<1.0	5.7	<1.0		21	<2.0	<2.0	<2.0	1,700			<100	328.11	14.73	313.38		
S-4	1/21/2009	940	4.6	<2.0	31	<2.0		38	<4.0	<4.0	<4.0	2,400			<200	328.11	13.66	314.45		
S-4	4/16/2009	680	3.4	<5.0	14	<5.0	·	29	<10	<10	<10	2,200			<500	328.11	13.43	314.68		
S-4	7/9/2009	280	<2.5	<5.0	<5.0	<5.0		17	<10	<10	<10	1,900			<500	328.11	15.04	313.07		
S-4	1/11/2010	580	2.8	<2.0	6.0	<2.0		19	<4.0	<4.0	<4.0	1,500			<200	328.11	13.75	314.36		
S-4	7/6/2010	490	1.8	<1.0	23	<1.0		11				890			<100	328.11	14.35	313.76		
S-4	1/21/2011	58	1.4	<0.50	<0.50	<1.0		13	<1.0	<1.0	<1.0	810			<150	328.11	13.85	314.26		
S-5	2/14/1988	1,000	40	86	180	180														
S-5	10/13/1988	560	66	20	18	36														
S-5	1/31/1989	180	27	8	9	13														
S-5	3/7/1989	3 <b>,800</b>	520	530	260	570														
S-5	6/26/1989	<50	3.8	<1	2	<3														
S-5	9/8/1989	110	25	2	2	12														
S-5	12/14/1989	1,700	300	86	67	140														
S5	3/5/1990	1,100	100	110	79	240														
S-5	6/14/1990	600	94	36	40	62														
S5	10/2/1990	4,500	1,400	160	260	300														
S5	11/20/1990	16,000	4,600	720	790	1,000														
S-5	12/18/1990	25,000	7,600	1,100	1,300	2,300														
S-5	3/20/1991	310	39	12	18	30										329.66				
S-5	6/26/1991	1,300	250	62	120	180										329.66				
S-5	9/5/1991	4,700	660	150	170	280										329.66				
S5	12/13/1991	1,400	580	19	110	80			·						'	329.66	17.48	312.18		

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	ТВА	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
•		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-5	3/11/1992	<30	<0.3	<0.3	<0.3	<0.3				هسې ا						329.66	16.22	313.44		
S-5	6/24/1992	1,800	380	52	120	180										329.66	17.47	312.19		
S-5	9/17/1992	2,200	750	91	170	170										329.66	16.84	312.82		
S-5	12/11/1992	8,700	1,600	66	48	340										329.66	16.37	313.29		
S-5	2/4/1993	150	156	0.7	4.7	4							·			329.66				
S-5	6/3/1993	480	140	3.4	17	14			·							329.66				
S-5	9/15/1993	80	2.4	0.5	1.4	2.9										329.66	16.20	313.46		
S-5	12/9/1993	120	0.56	<0.5	2.2	1.2						·				329.66	16.26	313.40		
S-5	3/4/1994	70	<0.5	<0.5	<0.5	<0.5										329.66	16.25	313.41		
S-5	6/16/1994	<50	<0.5	<0.5	<0.5	<0.5										329.66	16.04	313.62		
S-5	9/13/1994	<50	<0.5	<0.5	<0.5	<0.5										329.66	11.52	318.14		
S-5	6/21/1995	<50	<0.5	<0.5	<0.5	<0.5										329.66	14.50	315.16		
S-5	6/12/1996	<500	6	<5.0	<5.0	<5.0	1,400								·	329.66	12.53	317.13		
S-5	6/25/1997	<250	<2.5	<2.5	<2.5	<2.5	1,100									329,66	15.34	314.32		1.1
S-5	6/19/1998	<50	1	<0.50	<0.50	<0.50	61							'		329.66	13.71	315.95		3.6
S-5	6/17/1999	<50.0	1.44	<0.500	<0.500	<0.500	336			خبب						329.66	13.56	316.10		1.4
S-5	6/15/2000	<50.0	0.820	<0.500	<0.500	<0.500	221					'				329.66	15.00	314.66		2.7
S-5	11/29/2000	<50.0	<0.500	<0.500	< 0.500	< 0.500	183									329.66	16.29	313.37		0.7
S-5	3/7/2001	<50.0	<0.500	< 0.500	<0.500	<0.500	7.55			1						329.66	15.49	314.17		2.5
S-5	6/18/2001	<50	<0.50	<0.50	<0.50	<0.50		11						·		329.66	15.50	314.16		
S-5	9/17/2001	<50	<0.50	< 0.50	<0.50	<0.50		17								329.66	16.35	313.31		
S-5	12/31/2001	<50	<0.50	<0.50	<0.50	<0.50	<b></b> '	<5.0								329.66	12.80	316.86		
S-5	3/13/2002	<50	<0.50	<0.50	<0.50	<0.50		93								329.66	16.32	313.34		
S-5	6/18/2002	<50	<0.50	<0.50	<0.50	<0.50		130		·						329.66	17.00	312.66		
S-5	9/27/2002	<50	0.88	<0.50	<0.50	<0.50		280								329.36	16.34	313.02		
S-5	12/27/2002	<50	1.9	<0.50	<0.50	<0.50		87	<2.0	<2.0	<2.0	<50	<2.0	<2.0		329.36	15.45	313.91		
S-5	3/24/2003	<250	2.5	<2.5	<2.5	<5.0		220							÷	329.36	16.70	312.66		·
S-5	5/9/2003	<50	<0.50	< 0.50	< 0.50	<1.0		110				17	·			329.36	13.16	316.20		
S-5	7/8/2003	<1.000	<10	<10	<10	<20		320				<100				329.36	19.00	310.36		
S-5	10/15/2003	1,400 e	27	<2.5	<2.5	<5.0		180				51				329.36	19.08	310.28		
S-5	1/6/2004	84,000	1.400	1.200	<25	17.000		140				<250				329.36	20.97	308.39		
S-5	4/7/2004	20,000	70	<25	230	290		66				<250				329.36	20.81	308.55		
S-5	7/27/2004	9,900	46	<25	74	<50		43	<100	<100	<100	<250			<2,500	329.36	20.93	308.46	0.04	
S-5	8/4/2004	22,000	48	<10	63	38		·	·							329.36	20.97	308.46	0.09	
00	~, -, -001	,000																		

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPPH (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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
S-5	10/29/2004	14,000	93	<25	96	94		<25	<100	<100	<100	<250			<2,500	329.36	18.59	310.77		
S-5	1/6/2005	4,500	32	<10	47	86		<10	<40	<40	<40	<100				329.36	18.83	310.53		
S-5	4/14/2005	1,700	1.0	<0.50	8.4	16		5.6	<0.50	<0.50	<0.50	8.1			<5.0	329.36	15.03	314.33		
S-5	7/29/2005	3,900	8.9	<2.5	9.8	13		21	<10	<10	<40	<200			<1,000	329.36	19.71	309.65		
S-5	10/20/2005	3,300	27	<2.5	9.1	14		6.0	<10	<10	<10	32		. <b></b>	<250	329.36	21.90	307.46		
S-5	11/11/2005	2,300	54	0.69	15	19		8.3				<5.0				329.36	22.17	307.19		
S-5	1/26/2006	6,680	43.6	4.93	38.2	89.1		8.38	< 0.500	< 0.500	<0.500	<10.0			<50.0	329.36	20.85	308.51		
S-5	4/24/2006	1,930	1.43	<0.500	<0.500	12.1		2.76	< 0.500	< 0.500	<0.500	<10.0			<50.0	329.36	14.40	314.96		
S-5	7/12/2006	<50.0	4.24	<0.500	25.8	44.8		6.43	< 0.500	< 0.500	<0.500	35.3			<50.0	329.36	15.50	313.86		
S-5	10/20/2006	2,890	17.5	0.760	55.1	106		3.78	< 0.500	< 0.500	<0.500	<10.0			<50.0	329.36	15.55	313.81		
S-5	1/22/2007	1,600	7.3	0.54	35	60		0.73 i	<1.0	<1.0	<1.0	<10			<150	329.36	15.74	313.62		
S-5	4/13/2007	1,100 k	4.6	0.47 m	18	25.9		<1.0	<2.0	<2.0	<2.0	<10			<100	329.36	15.69	313.67		
S-5	7/9/2007	440 k	3.0	0.29 m	13	19.7		2.8	<2.0	<2.0	<2.0	<10			<100	329.36	15.46	313.90		
S-5	10/22/2007	6,300 k	3.1	0.41 m	21	28.3		<1.0	<2.0	<2.0	<2.0	<10		'	<100	329.36	15.87	313.49		
S-5	1/9/2008	590 k	0.69	0.28 m	10	11.3		0.71 m	<2.0	<2.0	<2.0	<10			100	329.36	14.97	314.39		
S-5	4/11/2008	470	0.76	<1.0	5.4	4.7		4.9	<2.0	<2.0	<2.0	18			<100	329.36	16.38	312.98		
S-5	7/29/2008	350	1.1	<1.0	3.9	2.3		4.4	<2.0	<2.0	<2.0	18			<100	329.36	16.22	313.14		
S-5	10/29/2008	630	5.7	<1.0	4.5	2.9		9.5	<2.0	<2.0	<2.0	23			<100	329.36	17.50	311.86		
S-5	1/21/2009	1,200	14	<1.0	7.0	4.1		22	<2.0	<2.0	<2.0	46			<100	329.36	16.52	312.84		
S-5	4/16/2009	280	1.3	<1.0	2.7	1.4		11	<2.0	<2.0	<2.0	35			<100	329.36	15.95	313.41		
S-5	7/9/2009	500	4.3	<1.0	2.9	1.4		22	<2.0	<2.0	<2.0	32			<100	329.36	17.46	311.90		
S-5	1/11/2010	370	5.0	<1.0	4.0	<1.0		26	<2.0	<2.0	<2.0	31			<100	329.36	16.68	312.68		
S-5	7/6/2010	1,300	6.5	<1.0	8.5	<1.0	<del></del>	49				85			<100	329.36	16.20	313.16		
S-5	1/21/2011	330	1.4	<0.50	1.3	<1.0		21	<1.0	<1.0	<1.0	<b>4</b> 0			<150	329.36	16.27	313.09		
S-5B	11/8/2005												·		·	332.25	43.71	288.54		
S-5B	11/11/2005	<50	<0.50	<0.50	<0.50	<1.0		2.5				15				332.25	43.79	288.46		
S-5B	1/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500		1.63	< 0.500	<0.500	<0.500	<10.0	,		<50.0	332.25	38.21	294.04		
S-5B	4/24/2006	<50.0	0.540	1.18	<0.500	<0.500		1.88	< 0.500	<0.500	<0.500	12.2			<50.0	332.25	30.68	301.57		
S-5B	7/12/2006	<50.0	<0.500	<0.500	<0.500	<0.500		1.63	<0.500	<0.500	<0.500	<10.0			<50.0	332.25	30.05	302.20		
S-5B	10/20/2006	<50.0	<0.500	<0.500	<0.500	<0.500		1.04	<0.500	<0.500	<0.500	<10.0			<50.0	332.25	31.60	300.65		
S-5B	1/22/2007	<50	0.33 i	0.36 i	0.27 i	<1.0		0.90 i	<1.0	<1.0	<1.0	<10			<150	332.25	27.79	304.46		
S-5B	4/13/2007	<50 k	0.30 m	0.28 m	<1.0	<1.0		0.73 m	<2.0	<2.0	<2.0	<10			79 m	332.25	24.78	307.47		
S-5B	7/9/2007	<50 k	0.37 m	<1.0	<1.0	<1.0		0.49 m	<2.0	<2.0	<2.0	<10			<100	332.25	31.12	301.13		

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Τ	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-5B	10/22/2007	66 k	0.33 m	<1.0	<1.0	<1.0		0.64 m	<2.0	<2.0	<2.0	5.7 m			<100	332.25	29.64	302.61		
S-5B	1/9/2008	<50 k	0.29 m	<1.0	<1.0	<1.0		0.46 m	<2.0	<2.0	<2.0	<10			220	332.25	25.52	306.73		
S-5B	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	332.25	25.32	306.93		
S-5B	7/29/2008	<50	< 0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			100	332.25	32.33	299.92		
S-5B	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	332.25	34.51	297.74		
S-5B	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	10			<100	332.25	32.27	299.98		
S-5B	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0	·	<1.0	<2.0	<2.0	<2.0	14			<100	332.25	29.30	302.95		
S-5B	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			200	332.25	34.41	297.84		
S-5B	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			200	332.25	37.45	294.80		
S-5B	7/6/2010	<50	<0.50	<1.0	<1.0	<1.0		<1.0				<10	·		<100	332.25	35.18	297.07		
S-5B	1/21/2011	<50	<0.50	<0.50	<0.50	<1.0		<1.0	<1.0	<1.0	<1.0	<10			<150	332.25	36.52	295.73		
S-5C	11/8/2005							· .				·				332.33	43.69	288.64		
S-5C	11/11/2005	55	<0.50	0.67	<0.50	<1.0		0.87				<5.0				332.33	43.65	288.68		
S-5C	1/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500		1.91	<0.500	<0.500	<0.500	41.2		'	<50.0	332.33	38.11	294.22		
S-5C	4/24/2006	<50.0	0.740	< 0.500	<0.500	< 0.500		1.93	<0.500	<0.500	<0.500	17.8			<50.0	332.33	30.61	301.72		
S-5C	7/12/2006	<50.0	<0.500	<0.500	< 0.500	<0.500		1.42	<0.500	<0.500	< 0.500	<10.0			<50.0	332.33	30.07	302.26		
S-5C	10/20/2006	<50.0	<0.500	< 0.500	< 0.500	< 0.500		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0	332.33	31.67	300.66		
S-5C	1/22/2007	<50	<0.50	<0.50	<0.50	<1.0		<1.0	<1.0	<1.0	<1.0	9.0 h,i			<150	332.33	27.90	304.43	·	
S-5C	4/13/2007	<50 k	0.24 m	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	12			<100	332.33	24.90	307.43		
S-5C	7/9/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	5.5 m			<100	332.33	31.22	301.11		
S-5C	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	10			<100	332.33	29.59	302.74	·	
S-5C	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	8.8 m		'	<100	332.33	25.51	306.82		
S-5C	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	332.33	25.51	306.82		
S-5C	7/29/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	332.33	32.48	299.85		
S-5C	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	332.33	36.39	295.94		
S-5C	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	332.33	32.20	300.13		
S-5C	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	332.33	29.29	303.04		
S-5C	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10	·		<100	332.33	34.51	297.82		·
S-5C	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	332.33	37.45	294.88		·
S-5C	7/6/2010	<50	<0.50	<1.0	<1.0	<1.0		<1.0				<10			<100	332.33	35.14	297.19		
S-5C	1/21/2011	<50	<0.50	<0.50	<0.50	<1.0		<1.0	<1.0	<1.0	<1.0	<10			<150	332.33	36.42	295.91		
5.6	10/13/1989	1100	13.0	1	42	33														
0.0	10/ 10/ 1000		-0.0	-																

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	ТОС	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-6	1/31/1989	340	3.8	<1	8	3														
S-6	3/7/1989	190	3.8	<1	7	3												·		
S-6	6/26/1989	480	15	<1	6	<3		,												
S-6	9/8/1989	270	1.3	1	7	<3														
S-6	12/15/1989	320	1.0	<0.5	2.6	<1				·	'								·	
S-6	3/6/1990	420	3.1	<0.5	14	<1										<del></del>				
S-6	6/14/1990	370	3.7	0.9	4.8	3							·							
S-6	10/2/1990	190	6.6	1.6	1.9	2.8														
S-6	12/18/1990	430	10	0.7	1.6	1.5										. <del></del>				·
S-6	3/20/1991	130a	606	0.6	0.7	3										327.62				<del></del> .
S-6	6/26/1991	120a	3.8	0.8	<0.5	1.7	<u></u>									327.62				
S-6	9/5/1991	60	<0.5	0.8	<0.5	0.5										327.62				
S-6	12/13/1991	150	2.3	<0.5	<0.5	150	'									327.62	15.11	312.51		
S-6	3/11/1992	<30	<0.3	<0.3	<0.5	<0.3										327.62	16.35	311.27		
S-6	6/24/1992	170	<0.5	<0.5	<0.5	<0.5							·			327.62	16.51	311.11		· · · · · · · · · · · · · · · · · · ·
S-6	9/17/1992	190	<0.5	1.6	<0.5	1.2						<u>,</u>				327.62	14.33	313.29		
S-6	12/11/1992	180	<0.5	0.8	<0.5	0.7										327.62	14.48	313.14		
S-6	2/4/1993	290	<0.5	<0.5	<0.5	0.7										327.62				
S-6	6/3/1993	100	1.2	<0.5	<0.5	<0.5										327.62				
S-6	9/15/1993	160	1.4	<0.5	0.9	2										327.62	14.16	313.46		
S-6	12/9/1993	130	2.3	2.6	5.1	6.2										327.62	14.68	312.94		
S-6	3/4/1994	220	<0.5	<0.5	<0.5	<0.5										327.62	14.42	313.20		
S-6	6/16/1994	60	<0.5	<0.5	<0.5	<0.5		·								327.62	14.92	312.70	,	
S-6	9/13/1994	<50	<0.5	6	<0.5	<0.5										327.62	14.72	312.90		
S-6	6/21/1995	270	<0.5	<0.5	<0.5	<0.5			·							327.62	13.86	313.76		
S-6	6/12/1996	200	2	<0.5	<0.5	<0.5	12									327.62	13.90	313.72		
S-6	6/25/1997	180	<0.50	0.61	<0.50	0.77	28		·							327.62	13.64	313.98		1.8
S-6 (D)	6/25/1997	130	<0.50	<0.50	<0.50	<0.50	21									327.62	13.64	313.98		1.8
S6	6/19/1998	100	7.6	<0.50	<0.50	<0.50	27								·	327.62	13.81	313.81		1.7
S6	6/17/1999	114	4.14	< 0.500	<0.500	<0.500	19.9									327.62	14.21	313.41		1.6
S-6	6/15/2000	367	17.5	<0.500	< 0.500	<0.500	1,050								·	327.62	14.51	313.11		1.8
S-6	11/29/2000	154	0.754	16.4	< 0.500	1.05	5,470									327.62	14.32	313.30		2.1
S-6	3/7/2001	183	0.971	25.1	0.636	0.996	6,830									327.62	15.39	312.23		1.7
S-6	6/18/2001	<2,000	<20	<20	<20	<20		8,200								327.62	14.72	312.90		

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	B	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-6	09/17/2001 c	<50	<0.50	<0.50	<0.50	<0.50		5.7	<2.0	<2.0	<2.0	<50			<500	327.62	16.69	310.93		
S-6	12/31/2001	260	<0.50	<0.50	<0.50	<0.50		11,000								327.62	13.99	313.63		
S-6	3/13/2002	440	<2.5	<2.5	<2.5	<2.5		930								327.62	15.10	312.52		
S-6	6/18/2002	340	<1.0	<1.0	<1.0	<1.0		560								327.62	15.24	312.38		
S-6	9/27/2002	<250	<2.5	<2.5	<2.5	<2.5		580								327.26	14.34	312.92		
S-6	12/27/2002	<500	<5.0	<5.0	<5.0	<5.0		230	<5.0	<5.0	<5.0	10,000	<5.0	<5.0		327.26	14.30	312.96		
S-6	3/24/2003	<5,000	<50	<50	<50	<100		<500								327.26	14.37	312.89		
S-6	5/9/2003	<2,500	<25	<25	<25	<50		140				12,000				327.26	14.25	313.01		
S-6	7/8/2003	<2,500	<25	<25	<25	<50		100				8,400				327.26	15.37	311.89		
S-6	10/15/2003	<1,000	<10	<10	<10	<20		63				10,000				327.26	17.69	309.57		
S-6	1/6/2004	<500	<5.0	<5.0	<5.0	<10		27				7,600				327.26	17.19	310.07		
S-6	4/7/2004	<500	<5.0	<5.0	<5.0	<10		15				2,900				327.26	16.72	310.54		
S-6	7/27/2004	860 e	<5.0	<5.0	<5.0	<10		30	<20	<20	<20	5,700			<500	327.26	16.90	310.36		
S-6	10/29/2004	<500	<5.0	<5.0	<5.0	<10		14	<20	<20	<20	2,500			<500	327.26	16.68	310.58		
S-6	1/6/2005	<200	<2.0	<2.0	<2.0	<4.0		8.7	<8.0	<8.0	<8.0	1,200				327.26	16.75	310.51		
S-6	4/14/2005	180	<0.90	<0.90	<0.90	<0.90		11	<0.90	<0.90	<0.90	2,300			<9.0	327.26	15.30	311.96		
S-6	7/29/2005	270 g	<2.5	<2.5	<2.5	<5.0		17	<10	<10	<10	2,300			<250	327.26	16.77	310.49		
S-6	10/20/2005	570	<2.5	<2.5	<2.5	<5.0		7.1	<10	<10	<10	1,200			<250	327.26	17.30	309.96		
S-6	1/26/2006	808	< 0.500	< 0.500	< 0.500	< 0.500		5.07	<0.500	<0.500	<0.500	473		'	<50.0	327.26	17.00	310.26		
S-6	4/24/2006	303	< 0.500	< 0.500	< 0.500	< 0.500	·	4.03	<0.500	<0.500	<0.500	212			<50.0	327.26	15.42	311.84		
S-6	7/12/2006	<50.0	< 0.500	< 0.500	< 0.500	< 0.500		13.3	<0.500	<0.500	<0.500	609			<50.0	327.26	15.15	312.11		
S-6	10/20/2006	850	< 0.500	< 0.500	< 0.500	< 0.500		26.4	<0.500	<0.500	<0.500	1,050	~~-		<50.0	327.26	13.98	313.28		
S-6	1/22/2007	620	<2.0	<2.0	<2.0	<4.0		30	<4.0	<4.0	<4.0	2,000			<600	327.26	14.14	313.12		·
S-6	4/13/2007	490 k,1	<2.5	<5.0	<5.0	<5.0		21	<10	<10	<10	1,700			<500	327.26	14.35	312.91		
S-6	7/9/2007	830 k,1	<0.50	<1.0	<1.0	<1.0		29	<2.0	<2.0	<2.0	2,300			<100	327.26	14.22	313.04		
S-6	10/22/2007	810 k	<2.5	<5.0	<5.0	<5.0		26	<10	<10	<10	2,300			<500	327.26	14.72	312.54		
S-6	1/9/2008	220 k	<2.5	<5.0	<5.0	<5.0		15	<10	<10	<10	1,100			<500	327.26	14.97	312.29		
S-6	4/11/2008	590	<0.50	<1.0	<1.0	<1.0		13	<2.0	<2.0	<2.0	2,000			<100	327.26	14.70	312.56		
S-6	7/29/2008	1,100	<2:5	<5.0	<5.0	<5.0		15	<10	<10	<10	1,700			<500	327.26	15.84	311.42		
S-6	10/29/2008	1,000	<2.5	<5.0	<5.0	<5.0		14	<10	<10	<10	3,200			<500	327.26	16.29	310.97		
S-6	1/21/2009	600	<2.5	<5.0	<5.0	<5.0		8.1	<10	<10	<10	1,900			<500	327.26	15.80	311.46		
S-6	4/16/2009	840	<2.5	<5.0	<5.0	<5.0		13	<10	<10	<10	4,000			<500	327.26	14.35	312.91		
S-6	7/9/2009	970	<2.5	<5.0	<5.0	<5.0		17	<10	<10	<10	7,100			<500	327.26	15.02	312.24		
S-6	1/11/2010	880	<2.5	<5.0	<5.0	<5.0		8.7	<10	<10	<10	4,400			<500	327.26	14.61	312.65		

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Τ	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-6	7/6/2010	950	<0.50	<1.0	<1.0	<1.0		13				5,200			<100	327.26	14.41	312.85		
S-6	1/21/2011	490	<2.0	<2.0	<2.0	4.7		6.6	<4.0	<4.0	<4.0	3,500			<600	327.26	14.61	312.65		
S-7	10/13/1988	<50	0.6	1	<1	<3														
S-7	1/31/1989	<50	<0.5	<1	<1	<3										· · · · ·				
S-7	3/7/1989	<50	<0.5	<1	<1	<3		·		,										
S-7	6/26/1989	<50	<0.5	<1	<1	<3			·									·		
S-7	9/8/1989	<50	<0.5	<1	<1	<3						·								
S-7	12/15/1989	<50	<0.5	<0.5	<0.5	<1								·						
S-7	3/6/1990	<50	<0.5	<0.5	<0.5	<1									·				'	
S-7	6/14/1990	<50	<0.5	<0.5	<0.5	<1														
S-7	10/2/1990	<50	<0.5	0.6	<0.5	0.9														
S-7	12/18/1990	<50	0.5	<0.5	<0.5	0.86							,							
S-7	3/20/1991	<50	<0.5	<0.5	<0.5	<0.5										328.67				
S-7	6/26/1991	<50	<0.5	<0.5	< 0.5	<0.5										328.67				
S-7	9/5/1991	<50	<0.5	0.6	<0.5	<0.5										328.67				
S-7	12/13/1991	<50	<0.6	<0.5	<0.5	<0.5										328.67	17.70	310.97		,
S-7	3/11/1992	<50	<0.3	<0.3	<0.3	<0.3										328.67	17.06	311.61		
S-7	6/24/1992	<50	<0.5	<0.5	<0.5	<0.5		·								328.67	17.80	310.87		
S-7	9/17/1992	<50	0.6	0.6	<0.5	<0.5										328.67	17.00	311.67		
S-7	12/11/1992	<50	<0.5	<0.5	<0.5	<0.5										328.67	17.35	311.32		
S-7	2/4/1993	<50	<0.5	<0.5	<0.5	<0.5										328.67				
S-7	6/3/1993	<50	<0.5	<0.5	<0.5	<0.5										328.67				
S-7	9/15/1993						·									328.67	16.65	312.02		
S-7	12/9/1993								·							328.67				
S-7	9/13/1994															328.67	16.83	311.84		
S-7	6/21/1995	<50	<0.5	<0.5	<0.5	<0.5										328.67	15.88	312.79		
S-7	6/12/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5									328.67	16.22	312.45		
S-7	6/25/1997	<50	<0.50	<0.50	< 0.50	<0.50	<2.5									328.67	16.12	312.55		3
S-7	6/19/1998	<50	< 0.50	<.050	<0.50	<0.50	<2.5						<u> </u>			328.67	14.81	313.86		2.6
S-7	6/17/1999	<50.0	<0.500	<0.500	<0.500	< 0.500	<5.00					<u></u>				328.67	15.91	312.76		5.1
S-7	6/15/2000	<50.0	<0.500	<0.500	<0.500	<0.500	7.32									328.67	16.14	312.53		2.0
S-7	11/29/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50							'		328.67	16.89	311.78		3.6
S-7	3/7/2001	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	÷								328.67	16.55	312.12		2.1

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	$DO^{-}$
Well ID	Date	TPPH	B	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-7	6/18/2001	<50	<0.50	<0.50	<0.50	<0.50		2.5								328.67	16.30	312.37		
S-7	09/17/2001 c	150	<0.50	55	<0.50	<0.50		8,300								328.67	14.23	314.44		
S-7	12/31/2001	<50	<0.50	<0.50	<0.50	<0.50		<5.0								328.67	16.28	312.39		·
S-7	3/13/2002	<50	<0.50	<0.50	<0.50	<0.50	· ·	5.9								328.67	17.41	311.26		
S-7	6/18/2002	<50	<0.50	<0.50	<0.50	<0.50		12								328.67	17.63	311.04		
S-7	9/27/2002	<50	<0.50	<0.50	<0.50	<0.50		10								328.41	16.96	311.45		
S-7	12/27/2002	<50	<0.50	<0.50	<0.50	<0.50		22	<2.0	<2.0	<2.0	<50	4.1	<2.0		328.41	16.00	312.41		
S-7	3/24/2003	<50	<0.50	<0.50	<0.50	<1.0		21								328.41	17.12	311.29		
S-7	5/9/2003	<50	<0.50	<0.50	<0.50	<1.0		31				7.3				328.41	16.14	312.27		
S-7	7/8/2003	<50	<0.50	<0.50	<0.50	<1.0		36				6.5				328.41	17.42	310.99		
S-7	10/15/2003	<50	<0.50	<0.50	<0.50	<1.0	<u>`</u>	100				<5.0				328.41	15.49	312.92		
S-7	1/6/2004	<100	<1.0	<1.0	<1.0	<2.0		200				20				328.41	18.93	309.48		
S-7	4/7/2004	<250	<2.5	<2.5	<2.5	<5.0		380				130				328.41	18.93	309.48		
S-7	7/27/2004	<250	<2.5	<2.5	<2.5	<5.0		240	<10	<10	<10	45			<250	328.41	18.91	309.50		
S-7	10/29/2004	<250	<2.5	<2.5	<2.5	<5.0		270	<10	<10	<10	52			<250	328.41	18.65	309.76		
S-7	1/6/2005	<250	<2.5	<2.5	<2.5	<5.0		160	<10	<10	<10	<25				328.41	18.52	309.89		
S-7	4/14/2005	<50	<0.50	<0.50	<0.50	<0.50		230	<0.50	<0.50	<0.50	130			<5.0	328.41	16.22	312.19		
S-7	7/29/2005	<2,000	<20	<20	<20	<40		170	<80	<80	<80	<200			<2,000	328.41	18.57	309.84		
S-7	10/20/2005	<100	<1.0	<1.0	<1.0	<2.0		180	<4.0	<4.0	<4.0	32			<100	328.41	19.25	309.16		
S-7	1/26/2006	75.9	< 0.500	< 0.500	<0.500	< 0.500		172	<0.500	<0.500	<0.500	65.1			<50.0	328.41	19.05	309.36		
S-7	4/24/2006	<50.0	<0.500	< 0.500	<0.500	< 0.500		199	<0.500	<0.500	<0.500	22.6			<50.0	328.41	16.91	311.50		
S-7	7/12/2006	<50.0	<0.500	<0.500	<0.500	< 0.500		122	<0.500	<0.500	<0.500	<10.0			<50.0	328.41	16.42	311.99		
S-7	10/20/2006	176	<0.500	< 0.500	< 0.500	0.720		73.5	<0.500	<0.500	< 0.500	<10.0			<50.0	328.41	16.66	311.75	'	
S-7	1/22/2007	<50	<0.50	<0.50	< 0.50	<1.0		62	<1.0	<1.0	<1.0	6.2 h,i			<150	328.41	17.24	311.17		
S-7	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		6.5	<2.0	<2.0	<2.0	<10			<100	328.41	17.05	311.36		
S-7	7/9/2007	52 k,l	<0.50	<1.0	<1.0	<1.0		39	<2.0	<2.0	<2.0	<10		,	<100	328.41	16.52	311.89		
S-7	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		33	<2.0	<2.0	<2.0	<10			<100	328.41	17.03	311.38		
S-7	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		28	<2.0	<2.0	<2.0	<10			<100	328.41	17.00	311.41		
S-7	4/11/2008	370	<0.50	<1.0	1.2	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	328.41	16.71	311.70		
S-7	7/29/2008	<50	<0.50	<1.0	<1.0	<1.0		21	<2.0	<2.0	<2.0	<10			<100	328.41	17.35	311.06		
S-7	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		18	<2.0	<2.0	<2.0	<10			<100	328.41	17.85	310.56		
S-7	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		17	<2.0	<2.0	<2.0	<10			<100	328.41	17.41	311.00		
S-7	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		19	<2.0	<2.0	<2.0	<10			<100	328.41	16.72	311.69		
S-7	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		20	<2.0	<2.0	<2.0	<10			<100	328.41	17.91	310.50		

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Τ	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	ТОС	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-7	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		13	<2.0	<2.0	<2.0	<10			<100	328.41	17.41	311.00		
S-7	7/6/2010	<50	<50	<1.0	<1.0	<1.0		. 11				<10			<100	328.41	17.11	311.30		
S-7	1/21/2011	<50	<0.50	<0.50	<0.50	<1.0		6.9	<1.0	<1.0	<1.0	<10			<150	328.41	16.85	311.56		
S-8	3/7/1989	<50	1.2	1	<1	<3		·									·			
S-8	6/26/1989	<50	0.8	1	<1	<3		· `												
S-8	9/8/1989	<50	<0.5	<1	<1	<3	·													
S-8	12/14/1989	<50	<0.5	<0.5	<0.5	<1		<u></u>			·					·				
S-8	3/5/1990	<50	<0.5	0.5	<0.5	<1														
S-8	6/14/1990	<50	<0.5	<0.5	<0.5	<1														
S-8	10/2/1990	<50	<0.5	<0.5	<0.5	<0.5	·	·												
S-8	12/18/1990	<50	2.9	7.0	1.0	6.4			·						'					
S-8	3/20/1991	<50a	0.8	1.8	2.6	5.2										327.00				·
S-8	6/26/1991	<50	<0.5	<0.5	<0.5	<0.5		`							<del></del> .	327.00				
S-8	9/5/1991	<50	<0.5	<0.5	<0.5	<0.5								1		327.00				
S-8	12/13/1991	<50	<0.5	<0.5	<0.5	<0.5		. مى ا								327.00	15.73	311.27		
S-8	3/11/1992	<30	<0.3	<0.3	<0.3	<0.3		; <u></u> '								327.00	14.64	312.36		
S-8	6/24/1992	<50	1.4	1.9	<0.5	<0.5		<u>-</u> -								327.00	15.77	311.23		
S-8	9/17/1992	<50	<0.5	<0.5	<0.5	<0.5				·			·			327.00	15.37	311.63		
S-8	12/11/1992	<50	<0.5	<0.5	<0.5	<0.5										327.00	14.94	312.06		
S-8	2/4/1993	<50	<0.5	<0.5	<0.5	<0.5		·								327.00				
S-8	6/3/1993	<50	<0.5	<0.5	<0.5	<0.5									'	327.00			·	
S-8	9/15/1993															327.00	14.91	312.09		
S-8	12/9/1993															327.00				
S-8	9/13/1994					'										327.00	15.16	313.08		
S-8	6/21/1995	<50	<0.5	<0.5	<0.5	<0.5										327.00	14.11	312.89		
S-8	6/12/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5									327.00	14.20	312.80		
S-8	6/25/1997	170	<0.50	<0.50	<0.50	<0.50	<2.5	·								327.00	14.42	312.58		0.5
S-8	6/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5									327.00	13.49	313.51		2.2
S-8	6/17/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00						·			327.00	14.07	312.93		0.9
S-8	6/15/2000	Well ina														327.00				
S-8	6/21/2000	<50.0	<0.500	<0.500	<0.500	<0.500	21.0				·			· ·	'	327.00	14.43	312.57		
S-8	11/29/2000	<50.0	<0.500	<0.500	<0.500	< 0.500	9.46			·					<sup>-</sup>	327.00	14.44	312.56		2.2
S-8	3/7/2001	<50.0	<0.500	<0.500	<0.500	< 0.500	4.21			<u>-</u>						327.00	13.69	313.31		2.1

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# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	T	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-8	6/18/2001	<50	0.55	0.92	<0.50	0.51		13								327.00	14.60	312.40		
S-8	9/17/2001	Unable t										'				327.00	15.07	311.93		
S-8	9/18/2001	Unable t														327.00				
S-8	12/31/2001	<50	1.1	1.4	<0.50	<0.50		8.4								327.00	14.02	312.98		
S-8	3/13/2002	Unable t										·				327.00	14.92	312.08		
S-8	6/18/2002	<50	<0.50	<0.50	<0.50	<0.50		19								327.00	15.37	311.63		
S-8	9/27/2002	<50	<0.50	<0.50	<0.50	<0.50		19								326.14	14.60	311.54		
S-8	12/27/2002	Well ina				·										326.14				
S-8	1/7/2003	Well inac						·								326.14				
S-8	3/24/2003	<50	<0.50	< 0.50	<0.50	<1.0		25								326.14	14.58	311.56		
S-8	5/9/2003	<50	<0.50	<0.50	<0.50	<1.0		24				<5.0				326.14	13.45	312.69		
S-8	7/8/2003	<50	<0.50	<0.50	<0.50	<1.0		46				<5.0				326.14	15.19	310.95		
S-8	10/15/2003	<50	<0.50	<0.50	<0.50	<1.0		42				<5.0				326.14	16.58	309.56		
S-8	1/6/2004	<50	<0.50	< 0.50	<0.50	<1.0		50				<5.0				326.14	16.27	309.87		
S-8	4/7/2004	<50	<0.50	<0.50	<0.50	<1.0		33	·			<5.0				326.14	16.12	310.02		
S-8	7/27/2004	<50	<0.50	<0.50	<0.50	<1.0		18	<2.0	<2.0	<2.0	<5.0			<50	326.14	16.26	309.88		
S-8	10/29/2004	<50	<0.50	<0.50	< 0.50	<1.0		25	<2.0	<2.0	<2.0	<5.0			<50	326.14	15.93	310.21		
S-8	1/6/2005	<50	<0.50	<0.50	<0.50	<1.0		21	<2.0	<2.0	<2.0	<5.0				326.14	15.79	310.35		
S-8	4/14/2005	<50	<0.50	<0.50	<0.50	<0.50		11	<0.50	<0.50	<0.50	<5.0			<5.0	326.14	14.78	311.36		
S-8	7/29/2005	<50	<0.50	<0.50	< 0.50	<1.0		13	<2.0	<2.0	<2.0	<5.0			<50	326.14	16.51	309.63		
S-8	10/20/2005	<50	<0.50	<0.50	<0.50	<1.0		11	<2.0	<2.0	<2.0	<5.0			<50	326.14	17.38	308.76		
S-8	1/26/2006	<50.0	<0.500	<0.500	<0.500	< 0.500		9.65	<0.500	<0.500	<0.500	<10.0			<50.0	326.14	16.55	309.59		
S-8	4/24/2006	<50.0	<0.500	< 0.500	<0.500	<0.500		5.94	<0.500	<0.500	<0.500	<10.0			<50.0	326.14	14.18	311.96		'
S-8	7/12/2006	<50.0	< 0.500	< 0.500	<0.500	<1.50		7.00	<0.500	<0.500	<0.500	<10.0			<50.0	326.14	14.52	311.62		
S-8	10/20/2006	<50.0	<0.500	< 0.500	<0.500	<0.500		8.54	<0.500	<0.500	< 0.500	<10.0			<50.0	326.14	14.30	311.84		
S-8	1/22/2007	<50	<0.50	<0.50	<0.50	<1.0		11	<1.0	<1.0	<1.0	<10			<150	326.14	15.07	311.07		
S-8	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		9.0	<2.0	<2.0	<2.0	<10			<100	326.14	14.31	311.83		
S-8	7/9/2007	<50 k	<0.50	<1.0	<1.0	<1.0		12	<2.0	<2.0	<2.0	<10		· · · <del>· · · ·</del>	<100	326.14	14.38	311.76		
S-8	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		22	<2.0	<2.0	<2.0	<10			<100	326.14	14.50	311.64		
S-8	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		14	<2.0	<2.0	<2.0	<10			180	326.14	13.88	312.26		
S-8	4/11/2008	51	<0.50	<1.0	<1.0	<1.0		25	<2.0	<2.0	<2.0	<10			<100	326.14	14.46	311.68		
S-8	7/29/2008	<50	<0.50	<1.0	<1.0	<1.0		14	<2.0	<2.0	<2.0	<10			<100	326.14	15.45	310.69		
S-8	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		12	<2.0	<2.0	<2.0	<10			<100	326.14	15.69	310.45		
S-8	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		8.7	<2.0	<2.0	<2.0	<10			<100	326.14	14.91	311.23		

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	Ε	$\boldsymbol{X}_{\cdot}$	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-8	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		8.1	<2.0	<2.0	<2.0	<10			<100	326.14	14.95	311.19		
S-8	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		9.7	<2.0	<2.0	<2.0	<10			<100	326.14	15.36	310.78		·
S-8	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		6.7	<2.0	<2.0	<2.0	<10			<100	326.14	14.98	311.16		
S-8	7/6/2010															326.14	14.75	311.39		
S-8	1/21/2011	<50	<0.50	<0.50	<0.50	1.2	·	5.3	<1.0	<1.0	<1.0	<10		·	<150	326.14	14.53	311.61		
S-9	3/7/1989	<50	<0.5	<1	<1	<3														
S-9	6/26/1989	<50	<0.5	<1	<1	<3				`										
S-9	9/8/1989	<50	1.7	2	<1	<3														
S-9	12/15/1989	<50	0.5	<0.5	<0.5	<1														
S-9	3/6/1990	<50	<0.5	<0.5	<0.5	<1														
S-9	6/14/1990	<50	<0.5	<0.5	<0.5	<1														
S-9	10/2/1990	<50	<0.5	<0.5	<0.5	<0.5			<b></b> .		,		·							
S-9	12/18/1990	<50	20	27	7.1	35									· ,					
S-9	3/7/1989	<50																		
S-9	6/26/1989	<50													·					
S-9	9/8/1989	<50					<u></u>													
S-9	12/15/1989	<50																		
S-9	3/6/1990	<50		<b></b> '																
S-9	6/14/1990	<50																		~~~
S-9	12/2/1990	<50												·						
S-9	12/18/1990	<50																		
S-9	3/20/1991	70a	0.7	0.7	<0.5	1									: <del></del> '	328.24				
S-9	6/26/1991	<50	<0.5	<0.5	<0.5	<0.5										328.24				
S-9	9/5/1991	<50	<0.5	0.8	<0.5	<0.5										328.24				
S-9	12/13/1991	<50	<0.5	<0.5	<0.5	<0.5										328.24	18.18	310.06		
S-9	3/11/1992	<30	<0.3	<0.3	<0.3	<0.3										328.24	17.37	310.87		
S-9	6/24/1992	<50	<0.5	<0.5	<0.5	<0.5										328.24	18.45	309.79		
S-9	9/17/1992	<50	<0.5	<0.5	<0.5	<0.5							· ·			328.24	17.88	310.36		
S-9	12/11/1992	<50	<0.5	<0.5	<0.5	<0.5										328.24	17.34	310.90		
S-9	2/4/1993	<50	<0.5	<0.5	<0.5	<0.5							、			328.24				
S-9	6/3/1993	<50	<0.5	<0.5	<0.5	<0.5										328.24				
S-9	9/15/1993	· ·														328.24	17.42	310.82		
S-9	12/9/1993	<50	<0.5	<0.5	<0.5	<0.5										328.24	16.89	311.35		

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	8020 (ug/L)	8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	DCA (ug/L)	EDB (ug/L)	Ethanol (ug/L)	TOC (MSL)	Water (ft.)	Elevation (MSL)	Thickness (ft.)	Reading (ppm)
5.9	3/4/1994	<50	<0.5	<0.5	<0.5	<0.5										328.24	17.22	311.02		
5-9	6/16/1994	<50	< 0.5	< 0.5	<0.5	<0.5										328.24	17.46	310.78		·
5-9	9/13/1994	<50	<0.5	<0.5	<0.5	<0.5							<del></del> .			328.24	17.59	310.65		
S-9	6/21/1995	<50	<0.5	<0.5	<0.5	<0.5										328.24	17.03	311.21		
S-9	6/12/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5									328.24	16.76	311.48		
S-9	6/25/1997	<50	<0.50	<0.50	<0.50	<0.50	2.8	·								328.24	16.89	311.35		1
S-9	6/19/1998	<50	<0.50	<0.50	<0.50	<0.50	7.1									328.24	15.59	312.65		3.8
S-9	6/17/1999	<50.0	<0.500	< 0.500	< 0.500	<0.500	15.3									328.24	16.47	311.77		1.9
S-9	6/15/2000	<50.0	<0.500	< 0.500	<0.500	<0.500	57.2									328.24	16.11	312.13		1.1
S-9	11/29/2000	<50.0	< 0.500	<0.500	<0.500	<0.500	76.5									328.24	17.30	310.94		1.1
S-9	3/7/2001	<50.0	<0.500	<0.500	<0.500	<0.500	84.9									328.24	19.42	308.82		1.1
S-9	6/18/2001	<50	<0.50	<0.50	<0.50	<0.50		86					·			328.24	17.22	311.02		
S-9	9/17/2001	<50	<0.50	<0.50	<0.50	<0.50		130								328.24	17.66	310.58		
S-9	12/31/2001	<50	<0.50	<0.50	<0.50	<0.50		120						'		328.24	17.65	310.59		
S-9	3/13/2002	<50	<0.50	<0.50	<0.50	< 0.50		130								328.24	17.75	310.49		
S-9	6/18/2002	<50	<0.50	<0.50	<0.50	<0.50		160								328.24	19.59	308.65		
<del>S</del> -9	9/27/2002	<50	<0.50	< 0.50	<0.50	<0.50		180								327.85	17.65	310.20		
S-9	12/27/2002	<50	<0.50	<0.50	<0.50	<0.50		180	<2.0	<2.0	<2.0	<50	2.8	<2.0	'	327.85	18.45	309.40		
S-9	3/24/2003	<250	<2.5	<2.5	<2.5	<5.0		230								327.85	17.97	309.88		
S-9	5/9/2003	<250	<2.5	<2.5	<2.5	<5.0		240				<25				327.85	17.68	310.17		
S-9	7/8/2003	<250	<2.5	<2.5	<2.5	<5.0		250				<25				327.85	17.65	310.20	·	
S-9	10/15/2003	<100	<1.0	<1.0	<1.0	<2.0		210				<10				327.85	19.49	308.36		
S-9	1/6/2004	<100	<1.0	<1.0	<1.0	<2.0		290				<10				327.85	20.51	307.34		
S-9	4/7/2004	<100	<1.0	<1.0	<1.0	<2.0		250				<10				327.85	20.02	307.83		
S-9	7/27/2004	<250	<2.5	9.1	2.7	9.8		270	<10	<10	<10	<25			<250	327.85	19.89	307.96		
S-9	10/29/2004	<100	<1.0	.<1.0	<1.0	<2.0		240	<4.0	<4.0	<4.0	<10		1	<100	327.85	19.17	308.68		
S-9	1/6/2005	<250	<2.5	<2.5	<2.5	<5.0		340	<10	<10	<10	<25				327.85	19.65	308.20		
S-9	4/14/2005	<50	<0.50	<0.50	<0.50	<0.50		250	<0.50	<0.50	1.4	<5.0		* 1	<5.0	327.85	17.38	310.47		
S-9	7/29/2005	<100	<1.0	<1.0	<1.0	<2.0		250	<4.0	<4.0	<4.0	<10			<100	327.85	20.09	307.76		
S-9	10/20/2005	<100	<1.0	<1.0	<1.0	<2.0		200	<4.0	<4.0	<4.0	<10			<100	327.85	21.89	305.96		
S-9	11/11/2005	<100	<1.0	<1.0	<1.0	<2.0		220				25				327.85	20.41	307.44		
S-9	1/26/2006	55.7	<0.500	<0.500	<0.500	<0.500		174	<0.500	<0.500	2.50	<10.0			<50.0	327.85	20.56	307.29		
S-9	4/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500		202	<0.500	<0.500	2.29	<10.0			<50.0	327.85	18.39	309.46		
S-9	7/12/2006	<50.0	<0.500	<0.500	<0.500	<1.50		158.00	<0.500	<0.500	2.06	<10.0			<50.0	327.85	18.60	309.25		

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-9	10/20/2006	212	<0.500	<0.500	<0.500	<0.500		151	<0.500	<0.500	1.25	<10.0			<50.0	327.85	18.75	309.10		
S-9	1/22/2007	82 j	<0.50	<0.50	<0.50	<1.0		150	<1.0	<1.0	1.4	20 h			<150	327.85	17.92	309.93		
S-9	4/13/2007	70 k,l	<0.50	<1.0	<1.0	<1.0		140	<2.0	<2.0	1.0 m	26	'		<100	327.85	18.14	309.71		
S-9	7/9/2007	70 k,l	<0.50	<1.0	<1.0	<1.0		120	<2.0	<2.0	1.2 m	<10			<100	327.85	18.37	309.48	·	
S-9	10/22/2007	59 k,l	<0.50	<1.0	<1.0	<1.0		110	<2.0	<2.0	<2.0	8.2 m			<100	327.85	18.08	309.77	·	
S-9	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		73	<2.0	<2.0	<2.0	<10			130	327.85	17.20	310.65		
S-9	4/11/2008	73	<0.50	<1.0	<1.0	<1.0		55	<2.0	<2.0	<2.0	<10			<100	327.85	17.74	310.11		
S-9	7/29/2008	85	< 0.50	<1.0	<1.0	<1.0		45	<2.0	<2.0	<2.0	<10			230	327.85	18.33	309.52		
S-9	10/29/2008	58	<0.50	<1.0	<1.0	<1.0		40	<2.0	<2.0	<2.0	<10			<100	327.85	18.89	308.96		
S-9	1/21/2009	51	<0.50	<1.0	<1.0	<1.0		35	<2.0	<2.0	<2.0	<10			<100	327.85	18.21	309.64	'	
S-9	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		27	<2.0	<2.0	<2.0	<10			<100	327.85	17.48	310.37		
S-9	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		28	<2.0	<2.0	<2.0	<10			<100	327.85	18.60	309.25		
S-9	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		22	<2.0	<2.0	<2.0	<10			<100	327.85	19.18	308.67		
S-9	7/6/2010	<50	<0.50	<1.0	<1.0	<1.0		16				<10			<100	327.85	17.81	310.04		
S-9	1/21/2011	<50	<0.50	<0.50	<0.50	1.8		13	<1.0	<1.0	<1.0	<10			<150	327.85	17.79	310.06		
S-9R	11/8/2005															330.47	43.12	287.35		
S-98	11/11/2005	<50	<0.50	20	<0.50	<1.0		23				<5.0				330.47	45.25	285.22		
5-9B	1/26/2006	<50.0	<0.500	1.68	<0.500	< 0.500		20.6	<0.500	<0.500	< 0.500	<10.0			<50.0	330.47	38.19	292.28		
S-9B	4/24/2006	<50.0	<0.500	<0.500	< 0.500	< 0.500		10.5	<0.500	<0.500	<0.500	<10.0			<50.0	330.47	30.31	300.16		
S-9B	7/12/2006	<50.0	<0.500	< 0.500	< 0.500	<1.50		4.98	< 0.500	<0.500	<0.500	<10.0			<50.0	330.47	29.01	301.46		
S-9B	10/20/2006	<50.0	<0.500	< 0.500	< 0.500	< 0.500		5.89	<0.500	<0.500	<0.500	<10.0			<50.0	330.47	31.25	299.22		
S-9B	1/22/2007	<50	< 0.50	< 0.50	< 0.50	<1.0		4.9	<1.0	<1.0	<1.0	<10			<150	330.47	26.78	303.69		
S-98	4/13/2007	<50 k	< 0.50	<1.0	<1.0	<1.0		3.5	<2.0	<2.0	<2.0	<10			<100	330.47	23.51	306.96		
S_9B	7/9/2007	<50 k	< 0.50	<1.0	<1.0	<1.0		3.0	<2.0	<2.0	<2.0	<10			<100	330.47	30.15	300.32		
S-9B	10/22/2007	<50 k	< 0.50	<1.0	<1.0	<1.0		5.8	<2.0	<2.0	<2.0	<10			<100	330.47	28.44	302.03		
S-98	1/9/2008	<50 k	< 0.50	<1.0	<1.0	<1.0		2.9	<2.0	<2.0	<2.0	<10			190	330.47	24.22	306.25		
S-9B	4/11/2008	<50	< 0.50	<1.0	<1.0	<1.0		3.1	<2.0	<2.0	<2.0	<10			<100	330.47	24.20	306.27		
SOR	7/29/2008	<50	<0.50	<1.0	<1.0	<1.0		4.1	<2.0	<2.0	<2.0	<10			<100	330.47	31.69	298.78		
SOR	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		4.1	<2.0	<2.0	<2.0	<10			<100	330.47	35.86	294.61		
SOR	1/21/2009	<50	< 0.50	<1.0	<1.0	<1.0		3.7	<2.0	<2.0	<2.0	<10			<100	330.47	31.31	299.16		
S_9B	4/16/2009	<50	< 0.50	<1.0	<1.0	<1.0		3.1	<2.0	<2.0	<2.0	<10			<100	330.47	28.10	302.37		
S_9R	7/9/2009	<50	< 0.50	<1.0	<1.0	<1.0		3.8	<2.0	<2.0	<2.0	<10			<100	330.47	33.76	296.71		
S-9B	1/11/2010	<50	< 0.50	<1.0	<1.0	<1.0		4.7	<2.0	<2.0	<2.0	<10			<100	330.47	36.93	293.54		
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# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	ТРРН	В	T	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
	2000	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-9B	7/6/2010															330.47	34.49	295.98		
S-9B	1/21/2011	<50	<0.50	0.73	0.58	3.2		2.9	<1.0	<1.0	<1.0	<10			<150	330.47	35.85	294.62		
5-90	11/8/2005															330.77	40.80	289.97		
S-9C	11/11/2005	<50	<0.50	<0.50	<0.50	<1.0		10				<5.0				330.77	42.87	287.90		
S-9C	1/26/2006	<50.0	< 0.500	<0.500	< 0.500	< 0.500		7.05	<0.500	<0.500	<0.500	<10.0			<50.0	330.77	37.40	293.37		
S-9C	4/24/2006	<50.0	< 0.500	< 0.500	< 0.500	< 0.500		4.86	<0.500	<0.500	<0.500	<10.0			<50.0	330.77	28.04	302.73		
5-90	7/12/2006	<50.0	< 0.500	< 0.500	< 0.500	<1.50		1.94	<0.500	<0.500	<0.500	<10.0			<50.0	330.77	28.96	301.81		
5-90	10/20/2006	<50.0	< 0.500	<0.500	< 0.500	< 0.500		1.06	<0.500	<0.500	<0.500	<10.0			<50.0	330.77	30.47	300.30		
S-9C	1/22/2007	<50	<0.50	< 0.50	< 0.50	<1.0		0.64 i	<1.0	<1.0	<1.0	<10			<150	330.77	26.52	304.25		
5-9C	4/13/2007	<50 k	< 0.50	<1.0	<1.0	<1.0		0.54 m	<2.0	<2.0	<2.0	<10			<100	330.77	23.70	307.07		
5-9C	7/9/2007	<50 k	< 0.50	<1.0	<1.0	<1.0		0.34 m	<2.0	<2.0	<2.0	<10			<100	330.77	30.28	300.49		
5-90	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		0.33 m	<2.0	<2.0	<2.0	<10			<100	330.77	17.03	313.74	<del></del>	
5-90	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			150	330.77	24.20	306.57		
S-9C	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	330.77	24.25	306.52		
5.90	$\frac{4}{7}$ 11/2000	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	330.77	31.55	299.22		
5-70	10/29/2008	<50	<0.50	<1.0	<10	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	330.77	35.54	295.23		
5-9C	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	330.77	31.11	299.66		
5-7C	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	330.77	28.29	302.48		
5-90	7/0/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	330.77	33.62	297.15		
5.00	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	330.77	36.55	294.22		
5-90	7/6/2010															330.77	34.34	296.43		·
5-9C 5-9C	1/21/2011	<50	<0.50	1.0	0.79	4.2		<1.0	<1.0	<1.0	<1.0	<10		'	<150	330.77	35.59	295.18		
<u>0</u> -7C	4242011			1.0																
S.10	8/11/1989	<50	<0.5	<1	<1	<3		<u></u> ·						·						
S-10	9/8/1989	<50	<0.5	<1	<1	<3														
S-10	12/15/1989	<50	< 0.5	<0.5	< 0.5	<1					1							·		
S-10	3/6/1990	<50	<0.5	<0.5	< 0.5	<1														
S 10	6/1//1990	<50	<0.5	<0.5	<0.5	<1												·		
S-10 C 10	10/2/1990	<50	<0.5	<0.5	<0.5	1.0														
5-10 6 10	10/2/1990	<50	<0.5	<0.5	<0.5	1.0		-												
S-10 C 10	3/20/1990	<50	<0.5	< 0.5	<0.5	<0.5										326.55				
S-10 C 10	6/26/1991	50 50	18	58	19	13										326.55				
G 10	0/5/1001	<50	-1.0 <0 5	<05	<05	<0.5	·									326.55				
	7/3/1771	~00	-0.0	-0.0		0.0														

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	ТРРН	В	Τ	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-10	12/13/1991	<50	<0.5	<0.5	<0.5	<0.5		·								326.55	14.77	311.78		
S-10	3/11/1992	<30	<0.3	<0.3	<0.3	<0.3										326.55	14.16	312.39		
S-10	6/24/1992	<50	<0.5	<0.5	<0.5	<0.5										326.55	14.83	311.72		
S-10	9/17/1992	<50	<0.5	<0.5	<0.5	<0.5		· ·								326.55	13.85	312.70		
S-10	12/11/1992	<50	<0.5	<0.5	<0.5	<0.5										326.55	13.90	312.65		
S-10	2/4/1993	<50	<0.5	<0.5	<0.5	<0.5		·			· · · · ·					326.55	·			
S-10	6/3/1993	<50	<0.5	<0.5	<0.5	<0.5										326.55				
S-10	9/15/1993			·								<u></u>				326.55	13.66	312.89		
S-10	12/9/1993					'										326.55				
S-10	9/13/1994															326.55	13.84	312.71		
S-10 ·	6/21/1995														·	326.55	13.08	313.47		
S-10	6/12/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5									326.55	13.34	313.21		
S-10	6/25/1997	<50	<0.50	<0.50	< 0.50	<0.50	2.8	·								326.55	13.28	313.27	·	2.4
S-10	6/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5									326.55	12.41	314.14		1.8
S-10	6/17/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00							*		326.55	12.81	313.74		2.0
S-10	6/15/2000	<50.0	< 0.500	<0.500	<0.500	<0.500	<2.50								· *	326.55	13.27	313.28		2.1
S-10	11/29/2000	<50.0	<0.500	<0,500	<0.500	<0.500	<2.50	·								326.55	13.98	312.57		2.4
S-10	3/7/2001	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50					·				326.55	13.40	313.15		2.5
S-10	6/18/2001	<50	<0.50	<0.50	<0.50	<0.50		3.7								326.55	13.29	313.26		
S-10	9/17/2001	<50	<0.50	<0.50	<0.50	<0.50		<5.0								326.55	13.61	312.94		
S-10	12/31/2001	<50	<0.50	<0.50	<0.50	<0.50	·	<5.0								326.55	13.48	313.07		
S-10	3/13/2002	<50	<0.50	<0.50	<0.50	<0.50	'	<5.0								326.55	14.66	311.89		
S-10	6/18/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0	·							326.55	14.59	311.96		
S-10	9/27/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0								325.87	13.21	312.66		
S-10	12/27/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0	<2.0	<2.0	<2.0	<50	<2.0	<2.0		325.87	13.50	312.37		
S-10	3/24/2003	<50	<0.50	<0.50	<0.50	<1.0		<5.0								325.87	16.60	309.27		
S-10	5/9/2003	<50	<0.50	<0.50	<0.50	<1.0		1.7				<5.0				325.87	13.07	312.80		
S-10	7/8/2003	<50	<0.50	<0.50	<0.50	<1.0		1.7				<5.0	·			325.87	14.10	311.77		
S-10	10/15/2003	<50	<0.50	<0.50	<0.50	<1.0		0.69				<5.0				325.87	14.75	311.12		
S-10	1/6/2004	<50	<0.50	<0.50	<0.50	<1.0		0.51	·			<5.0				325.87	15.28	310.59		
S-10	4/7/2004	<50	<0.50	<0.50	<0.50	<1.0		<0.50		·		<5.0				325.87	15.39	310.48		
S-10	7/27/2004	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0			<50	325.87	15.25	310.62		
S-10	10/29/2004	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0			<50	325.87	15.23	310.64		
S-10	1/6/2005	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0				325.87	15.47	310.40		
															,					

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	ТОС	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-10	4/14/2005	<50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<5.0		·	<5.0	325.87	13.24	312.63		
S-10	7/29/2005	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0			<50	325.87	15.08	310.79		
S-10	10/20/2005	<50	<0.50	<0.50	<0.50	<1.0		<0.50	<2.0	<2.0	<2.0	<5.0			<50	325.87	15.45	310.42		
S-10	1/26/2006	<50.0	<0.500	< 0.500	< 0.500	< 0.500		< 0.500	<0.500	<0.500	< 0.500	<10.0			<50.0	325.87	14.85	311.02		
S-10	4/24/2006	<50.0	< 0.500	< 0.500	<0.500	<0.500		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0	325.87	13.90	311.97		
S-10	7/12/2006	<50.0	<0.500	<0.500	<0.500	<1.50		<0.500	<0.500	<0.500	< 0.500	<10.0			<50.0	325.87	13.00	312.87		
S-10	10/20/2006	<50.0	<0.500	<0.500	<0.500	< 0.500		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0	325.87	13.15	312.72		
S-10	1/22/2007	<50	<0.50	<0.50	<0.50	<1.0		<1.0	<1.0	<1.0	<1.0	<10			<150	325.87	14.45	311.42		
S-10	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	15.49	310.38		
S-10	7/9/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	14.00	311.87		
S-10	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	14.11	311.76		
S-10	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	14.08	311.79		
S-10	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	14.38	311.49		
S-10	7/29/2008	<50	< 0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	14			320	325.87	14.50	311.37		
S-10	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	14.80	311.07		
S-10	1/21/2009	<50	< 0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	14.53	311.34		
S-10	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	13.92	311.95		
S-10	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	14.84	311.03		
S-10	1/11/2010	<50	<0.50	<1.0	<1.0	<sup>•</sup> <1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	325.87	14.35	311.52		
S-10	7/6/2010													·		325.87	14.40	311.47		
S-10	1/21/2011	<50	<0.50	1.1	0.78	3.7		<1.0	<1.0	<1.0	<1.0	<10			<150	325.87	13.90	311.97		
S-11	9/23/2002		·														16.93			
· S-11	9/27/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0									16.95			
S-11	12/27/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0	<2.0	<2.0	<2.0	<50	<2.0	<2.0		327.48	16.40	311.08		
S-11	3/24/2003	<50	<0.50	<0.50	<0.50	<1.0		<5.0			·					327.48	17.25	310.23		
S-11	5/9/2003	<50	<0.50	<0.50	<0.50	<1.0		0.54				<5.0				327.48	16.37	311.11		
S-11	7/8/2003	<50	<0.50	<0.50	<0.50	<1.0		<0.50				<5.0				327.48	17.17	310.31		
S-11	10/15/2003	<50	<0.50	< 0.50	<0.50	<1.0		< 0.50				<5.0				327.48	18.01	309.47		
S-11	1/6/2004	<50	< 0.50	1.4	< 0.50	<1.0		1.1				<5.0				327.48	18.25	309.23		
S-11	4/7/2004	<50	<0.50	<0.50	<0.50	<1.0		1.4				<5.0				327.48	18.48	309.00		
S-11	7/27/2004	<50	<0.50	< <b>0</b> .50	<0.50	<1.0		2.3	<2.0	<2.0	<2.0	<5.0			<50	327.48	18.49	308.99		
S-11	10/29/2004	<50	< 0.50	<0.50	<0.50	<1.0		9.7	<2.0	<2.0	<2.0	<5.0		"	<50	327.48	18.22	309.26		
S-11	1/6/2005	<50	<0.50	<0.50	<0.50	<1.0		15	<2.0	<2.0	<2.0	<5.0				327.48	18.07	309.41		

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	B	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	ТОС	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-11	4/14/2005	<50	<0.50	<0.50	<0.50	<0.50		10	<0.50	<0.50	<0.50	<5.0			<5.0	327.48	16.28	311.20		
S-11	7/29/2005	<50	<0.50	<0.50	<0.50	<1.0		19	<2.0	<2.0	<2.0	<5.0			<50	327.48	17.98	309.50		
S-11	10/20/2005	<50	<0.50	<0.50	<0.50	<1.0		24	<2.0	<2.0	<2.0	<5.0			<50	327.48	18.45	309.03		
S-11	1/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500		27.7	<0.500	<0.500	<0.500	<10.0			<50.0	327.48	18.50	308.98		
S-11	4/24/2006	<50.0	<0.500	<0.500	< 0.500	< 0.500		41.0	<0.500	<0.500	<0.500	<10.0			<50.0	327.48	16.61	310.87		
S-11	7/12/2006	<50.0	<0.500	<0.500	<0.500	<1.50		33.3	<0.500	<0.500	<0.500	<10.0			<50.0	327.48	16.44	311.04		
S-11	10/20/2006	53.5	< 0.500	<0.500	<0.500	<0.500		38.2	<0.500	<0.500	<0.500	<10.0	·		<50.0	327.48	16.61	310.87		
S-11	1/22/2007	<50	<0.50	< 0.50	<0.50	<1.0		61	<1.0	<1.0	<1.0	6.1 h,i			<150	327.48	17.27	310.21		
S-11	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		60	<2.0	<2.0	<2.0	<10			<100	327.48	6.88	320.60		
S-11	7/9/2007	<50 k	<0.50	<1.0	<1.0	<1.0		59	<2.0	<2.0	<2.0	<10			<100	327.48	16.84	310.64		
S-11	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		60	<2.0	<2.0	<2.0	6.2 m			<100	327.48	17.11	310.37		
S-11	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0	-	52	<2.0	<2.0	<2.0	<10			<100	327.48	16.85	310.63		
S-11	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		36	<2.0	<2.0	<2.0	<10			<100	327.48	16.78	310.70		
S-11	7/29/2008	58	<0.50	<1.0	<1.0	<1.0		31	<2.0	<2.0	<2.0	<10			<100	327.48	17.31	310.17		
S-11	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		22	<2.0	<2.0	<2.0	<10			<100	327.48	17.85	309.63		·
S-11	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		20	<2.0	<2.0	<2.0	<10			<100	327.48	17.66	309.82		
S-11	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		20	<2.0	<2.0	<2.0	<10			<100	327.48	16.93	310.55		
S-11	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		17	<2.0	<2.0	<2.0	<10			<100	327.48	17.74	309.74		
S-11	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		13	<2.0	<2.0	<2.0	<10			<100	327.48	17.61	309.87		
S-11	7/6/2010					1										327.48	17.17	310.31		
<b>S-11</b>	1/21/2011	<50	<0.50	<0.50	<0.50	<1.0		11	<1.0	<1.0	<1.0	<10			<150	327.48	17.21	310.27		
G 12	9/23/2002																14.74			
S 12	9/23/2002	<50	<0.50	<0.50	<0.50	<0.50		<5.0									17.95			
S-12	$\frac{12}{27}$	<50	<0.50	<0.50	< 0.50	< 0.50		<5.0	<2.0	<2.0	<2.0	<50	<2.0	<2.0		322.76	16.92	305.84		
S 12	3/24/2003	<50	<0.50	<0.50	<0.50	<1.0		<5.0								322.76	16.53	306.23		
S-12	5/9/2003	<50	<0.50	< 0.50	< 0.50	<1.0		1.5				<5.0				322.76	17.73	305.03		
S-12	7/8/2003	<50	<0.50	< 0.50	< 0.50	<1.0		1.2				<5.0				322.76	17.18	305.58		
S-12	10/15/2003	<50	<0.50	<0.50	< 0.50	<1.0		1.1				<5.0			·	322.76	17.54	305.22		
S-12	1/6/2004	<50	< 0.50	1.1	< 0.50	<1.0		1.1				<5.0				322.76	17.45	305.31		
S-12	4/7/2004	<50	< 0.50	< 0.50	< 0.50	<1.0		0.76				<5.0				322.76	16.85	305.91		
S-12	7/27/2004	<50	< 0.50	<0.50	<0.50	<1.0		0.65	<2.0	<2.0	<2.0	<5.0			<50	322.76	17.89	304.87		
S-12	10/29/2004	<50 f	< 0.50	<0.50	<0.50	<1.0		1.3	<2.0	<2.0	<2.0	<5.0			<50	322.76	17.84	304.92		
S-12	1/6/2005			·				<u></u>								322.76				

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-12	4/14/2005	<50	<0.50	<0.50	<0.50	<0.50		0.79	<0.50	<0.50	<0.50	<5.0			<5.0	322.76	15.98	306.78		
S-12	7/29/2005	<50	<0.50	<0.50	<0.50	<1.0		0.69	<2.0	<2.0	<2.0	<5.0			<50	322.76	17.32	305.44		
S-12	10/20/2005	<50	<0.50	<0.50	<0.50	<1.0		0.66	<2.0	<2.0	<2.0	<5.0			<50	322.76	16.58	306.18		
S-12	1/26/2006	<50.0	<0.500	< 0.500	<0.500	<0.500		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0	322.76	15.94	306.82		
S-12	4/24/2006	<50.0	< 0.500	<0.500	<0.500	<0.500		0.740	<0.500	<0.500	<0.500	<10.0			<50.0	322.76	17.31	305.45		
S-12	7/12/2006	<50.0	<0.500	<0.500	<0.500	<1.50		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0	322.76	16.70	306.06		
S-12	10/20/2006	<50.0	<0.500	<0.500	<0.500	<0.500		0.520	<0.500	< 0.500	<0.500	<10.0			<50.0	322.76	17.63	305.13		
S-12	1/22/2007	<50	<0.50	<0.50	<0.50	<1.0		0.70 i	<1.0	<1.0	<1.0	<10			<150	322.76	17.05	305.71		
S-12	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		0.70 m	<2.0	<2.0	<2.0	<10			<100	322.76	17.12	305.64		
S-12	7/9/2007	51 k,l	<0.50	<1.0	<1.0	<1.0	<del></del>	0.59 m	<2.0	<2.0	<2.0	<10			<100	322.76	16.85	305.91		
S-12	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		0.92	<2.0	<2.0	<2.0	<10			<100	322.76	16.40	306.36		
S-12	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		0.67 m	<2.0	<2.0	<2.0	<10			<100	322.76	16.50	306.26		
S-12	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	322.76	16.30	306.46		
S-12	7/29/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0_	<2.0	<2.0	<2.0	<10			140	322.76	17.00	305.76		
S-12	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	322.76	17.61	305.15		
S-12	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	322.76	17.59	305.17		
S-12	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	322.76	16.74	306.02		
S-12	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10		'	<100	322.76	17.25	305.51		
S-12	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	322.76	16.88	305.88		
S-12	7/6/2010		·													322.76	17.65	305.11		
S-12	1/21/2011	<50	<0.50	<0.50	<0.50	<1.0		<1.0	<1.0	<1.0	<1.0	<10			<150	322.76	17.08	305.68		
S-14	11/8/2005	. <b></b>														324.90	17.45	307.45		
S-14	11/11/2005	<50 f	< 0.50	<0.50	<0.50	<1.0		<0.50				<5.0				324.90	17.63	307.27		
S-14	4/24/2006	<50.0	<0.500	< 0.500	< 0.500	< 0.500		< 0.500	<0.500	<0.500	<0.500	<10.0			<50.0	324.90	15.56	309.34		
S-14	7/12/2006															324.90	16.77	308.13		
S-14	10/20/2006	<50.0	0.560	1.08	<0.500	0.630		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0	324.90	17.26	307.64		·
S-14	1/22/2007															324.90	17.54	307.36		
S-14	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	324.90	17.10	307.80		
S-14	$\frac{10}{22}/2007$	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	324.90	17.56	307.34		
S-14	1/9/2008	-00 R								'						324.90				
S-14	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	324.90	17.23	307.67		
S-14 S-14	7/29/2008															324.90	18.30	306.60		
S-14	10/29/2008	<50	<0 50	<10	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10	·		<100	324.90	18.62	306.28		
J-14	10/2/2000	-50	-0.00	1.0	1.0															

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	ТОС	Water	Elevation	Thickness	Reading
	·	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
S-14	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	324.90	17.40	307.50		
S-14	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	324.90	18.46	306.44		
S-14	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10			<100	324.90	18.45	306.45		
S-14	7/6/2010							· ·								324.90	18.62	306.28		
S-14	1/21/2011	<50	<0.50	<0.50	<0.50	1.6		<1.0	<1.0	<1.0	<1.0	<10		·	<150	324.90	17.80	307.10		
S-15	4/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0		24.00			
S-15	7/12/2006																23.85			
S-15	10/20/2006	<50.0	<0.500	< 0.500	<0.500	<0.500		<0.500	<0.500	<0.500	<0.500	<10.0			<50.0		23.87			
S-15	1/22/2007			·										'		(	26.03			
S-15	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10		<b></b> '	<100		24.29			
S-15	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10		<b></b> , .	<100		24.34			
S-15	1/9/2008																	<b></b> `		
S-15	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		<1.0	<2.0	<2.0	<2.0	<10		·	<100	1	23.90		·	、 <del></del>
S-15	7/29/2008																23.91	·		
S-15	10/29/2008		· ·														24.02		·	
S-15	4/16/2009	Insuffici	ient wate	r		·											24.42		,	
S-15	7/9/2009	Insuffici	ent wate	r													23.98			·
S-15	1/11/2010	Insuffici	ient wate	r						·							23.91			
S-15	7/6/2010															,	23.90			
S-15	1/21/2011	Insuffic	ient wate	er									"				23.00			
SR-1	10/11/1989	200	100	<1	<10	10									 					
SR-1	12/14/1989	500	210	<0.5	16	16						·		·						
SR-1	3/5/1990	64	20	<0.5	1.5	4			·			·					·			
SR-1	6/14/1990	60	17	<0.5	1.9	1									- <b></b> -		·			
SR-1	10/2/1990	<50	5.0	<0.5	<0.5	<0.5												'		
SR-1	12/18/1990	<50	28	5.5	4.5	4.5		· ·												
SR-1	3/4/1994															329.78	16.34	313.44		
SR-1	6/16/1994					'					·					329.78	16.72	313.06		
SR-1	12/31/2001															329.78	15.31	314.47		
SR-1	03/11/2002 d	i			'											329.13				
SR-1	09/22/2003 d	i						. <del></del>								328.33				
SR-1	4/7/2004			·												328.33	30.79	297.54		

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2 <b>-</b>			,	Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Т	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
SR-1	7/27/2004	<500	<5.0	<5.0	<5.0	11		44	<20	<20	<20	3,000	<b></b> '		<500	328.33	30.72	297.61		
SR-1	8/4/2004	62	<0.50	<0.50	2.6	13			·							328.33	30.77	297.56		
SR-1	10/29/2004	<500	<5.0	<5.0	<5.0	<10		11	<20	<20	<20	1,400			<500	328.33	30.85	297.48		
SR-1	1/6/2005	<250	<2.5	<2.5	6.8	31		20	<10	<10	<10	2,800				328.33	30.92	297.41		
SR-1	4/14/2005	170	12	<0.90	11	1.5		190	<0.90	<0.90	<0.90	2,200			<9.0	328.33	30.73	297.60		
SR-1	7/29/2005	<100	<1.0	<1.0	<1.0	3.7		7.6	<4.0	<4.0	<4.0	1,500			<100	328.33	24.53	303.80		
SR-1	10/20/2005	190	<1.0	<1.0	5.4	35		4.3	<4.0	<4.0	<4.0	1,200			<100	328.33	31.00	297.33		
SR-1	1/26/2006	<50.0	4.65	<0.500	1.79	18.8		4.25	<0.500	<0.500	<0.500	556			<50.0	328.33	30.89	297.44		
SR-1	4/24/2006	<50.0	2.76	< 0.500	1.36	< 0.500		42.8	<0.500	<0.500	<0.500	180			<50.0	328.33	14.94	313.39		
SR-1	7/12/2006	<50.0	0.950	<0.500	< 0.500	<1.50	,	3.24	<0.500	<0.500	<0.500	171			<50.0	328.33	14.71	313.62		
SR-1	10/20/2006	<50.0	<0.500	< 0.500	< 0.500	< 0.500		< 0.500	<0.500	<0.500	<0.500	<10.0			<50.0	328.33	15.84	312.49		
SR-1	1/22/2007	<50	0.48 i	<0.50	0.60	<1.0		0.70 i	<1.0	<1.0	<1.0	46			<150	328.33	15.25	313.08		
SR-1	4/13/2007	61 k	0.43 m	<1.0	0.26 m	<1.0		9.4	<2.0	<2.0	<2.0	62	1		<100	328.33	14.78	313.55		
SR-1	7/9/2007	<50 k	0.44 m	<1.0	0.69 m	<1.0		3.5	<2.0	<2.0	<2.0	19			<100	328.33	14.44	313.89		
SR-1	10/22/2007	<50 k	<0.50	<1.0	0.56 m	<1.0		9.6	<2.0	<2.0	<2.0	31			<100	328.33	15.31	313.02		
SR-1	1/9/2008	53 k	<0.50	<1.0	3.5	2.6		5.6	<2.0	<2.0	<2.0	12			<100	328.33	14.39	313.94		
SR-1	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		4.7	<2.0	<2.0	<2.0	16			<100	328.33	15.00	313.33		
SR-1	7/29/2008	100	<0.50	<1.0	1.7	<1.0		4.4	<2.0	<2.0	<2.0	23			<100	328.33	15.70	312.63		
SR-1	10/29/2008	54	<0.50	<1.0	<1.0	<1.0		8.3	<2.0	<2.0	<2.0	61		····· ·	<100	328.33	16.05	312.28		
SR-1	1/21/2009	68	<0.50	<1.0	<1.0	<1.0		26	<2.0	<2.0	<2.0	310			<100	328.33	15.02	313.31		
SR-1	4/16/2009	62	<0.50	<1.0	<1.0	<1.0		8.0	<2.0	<2.0	<2.0	38		÷	<100	328.33	14.69	313.64		
SR-1	7/9/2009	87	<0.50	<1.0	<1.0	<1.0		26	<2.0	<2.0	<2.0	150			<100	328.33	15.91	312.42		
SR-1	1/11/2010	<50	<0.50	<1.0	<1.0	<1.0		12	<2.0	<2.0	<2.0	230			<100	328.33	15.25	313.08		
SR-1	7/6/2010	<50	<0.50	<1.0	<1.0	<1.0		15				300		"	<100	328.33	15.28	313.05		
SR-1	1/21/2011	<50	<0.50	<0.50	<0.50	<1.0		3.2	<1.0	<1.0	<1.0	85			<150	328.33	15.02	313.31	, <b></b>	
CD 1	10/11/1000	880	<10	10	29	33														
SK-Z	10/11/1909	1100	17	<05	100	67														
SK-Z	2/5/14/1909	140	2.0	<0.5	100	7														
SK-2	3/5/1990	140 <50	20.5	<0.5	26	, <1									·		<sup>1</sup>			
SK-2	6/14/1990	<50 <50	<0.5	<0.5	2.0	<05														
SK-2	10/2/1990	<50 <50	NU.3	~0.3 1 /	1.5	~0.J 2 7													<del>_</del>	
SK-2	12/18/1990	<5U	1.0	1.4	1.0	2.7										328.35	14.39	313.96		
SR-2	3/4/1994														·	328.35	14.48	313.87		
SR-2	6/16/1994														•					

# GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	T ·	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
SR-2	12/31/2001															328.35	13.62	314.73		
SR-2	9/27/2002	<1.000	<10	<10	<10	<10		5,000								327.91	14.20	313.71		
SR-2	12/27/2002	<1.000	<10	<10	<10	<10		4,800	<10	<10	<10	1,600	<10	<10		327.91	13.33	314.58	<10	
SR-2	3/24/2003	<5.000	<50	<50	<50	<100		10,000							· ·	327.91	13.75	314.16		
SR-2	5/9/2003	<5,000	<50	<50	80	290		13,000	·			6,100				327.91	13.40	314.51		
SR-2	7/8/2003	<5.000	<50	<50	<50	<100		12,000				4,800				327.31	30.48	296.83		
SR-2	10/15/2003	, <500	<5.0	<5.0	<5.0	20		1,200				9,800				327.31	15.38	311.93		
SR-2	1/6/2004	<1,300	<13	<13	<13	<25		500				17,000				327.31	31.47	295.84		
SR-2	4/7/2004	<1,300	<13	<13	<13	<25		280				10,000				327.31	31.54	295.77		
SR-2	7/27/2004	<1,300	<13	<13	<13	<25		63	<50	<50	<50	9,500			<1,300	327.31	31.35	295.96		
SR-2	10/29/2004	<1,300	<13	<13	<13	<25		47	<50	<50	<50	7,600			<1,300	327.31	30.50	296.81		
SR-2	1/6/2005	<1,300	<13	<13	<13	<25		23	<50	<50	<50	6,000				327.31	31.38	295.93		
SR-2	4/14/2005	<150	<1.5	<1.5	<1.5	1.7		27	<1.5	<1.5	<1.5	6,300			<15	327.31	31.28	296.03		
SR-2	7/29/2005	<500	<5.0	<5.0	<5.0	<10		. 14	<20	<20	<20	5,400			<500	327.31	22.71	304.60	·	
SR-2	10/20/2005	<500	<5.0	<5.0	<5.0	<10		<5.0	<20	<20	<20	3,600			<500	327.31	31.31	296.00		
SR-2	1/26/2006	<50.0	<0.500	<0.500	1.56	7.72		6.37	<0.500	<0.500	<0.500	1,620			<50.0	327.31	31.60	295.71		
SR-2	4/24/2006	<50.0	< 0.500	< 0.500	<0.500	<0.500		13.1	<0.500	<0.500	<0.500	544			<50.0	327.31	12.86	314.45		
SR-2	7/12/2006	<50.0	0.950	< 0.500	< 0.500	<1.50		3.00	<0.500	<0.500	<0.500	941			<50.0	327.31	12.65	314.66		
SR-2	10/20/2006	96.0	< 0.500	< 0.500	< 0.500	< 0.500		9.56	<0.500	<0.500	<0.500	881			<50.0	327.31	14.10	313.21		
SR-2	1/22/2007	<50	<0.50	<0.50	<0.50	<1.0		2.8	<1.0	<1.0	<1.0	1,100			<150	327.31	13.47	313.84		
SR-2	4/13/2007	<50 k	<0.50	<1.0	<1.0	<1.0		6.9	<2.0	<2.0	<2.0	520			<100	327.31	12.89	314.42		
SR-2	7/9/2007	58 k,l	0.14 m	<1.0	<1.0	<1.0		. 21	<2.0	<2.0	<2.0	720			<100	327.31	12.03	315.28		
SR-2	10/22/2007	<50 k	<0.50	<1.0	<1.0	<1.0		2.0	<2.0	<2.0	<2.0	69			<100	327.31	13.51	313.80		
SR-2	1/9/2008	<50 k	0.17 M	<1.0	<1.0	<1.0		8.7	<2.0	<2.0	<2.0	100			<100	327.31	13.63	313.68		
SR-2	4/11/2008	<50	<0.50	<1.0	<1.0	<1.0		8.3	<2.0	<2.0	<2.0	280			<100	327.31	13.21	314.10		
SR-2	7/29/2008	<50	<0.50	<1.0	<1.0	<1.0		1.2	<2.0	<2.0	<2.0	22			<100	327.31	14.81	312.50		
SR-2	10/29/2008	<50	<0.50	<1.0	<1.0	<1.0		1.6	<2.0	<2.0	<2.0	21			<100	327.31	15.10	312.21		
SR-2	1/21/2009	<50	<0.50	<1.0	<1.0	<1.0		1.6	<2.0	<2.0	<2.0	70			<100	327.31	12.79	314.52		
SR-2	4/16/2009	<50	<0.50	<1.0	<1.0	<1.0		2.3	<2.0	<2.0	<2.0	73			<100	327.31	12.64	314.67		
SR-2	7/9/2009	<50	<0.50	<1.0	<1.0	<1.0		4.0	<2.0	<2.0	<2.0	63			<100	327.31	14.07	313.24		
SR-2	1/11/2010	83	<0.50	<1.0	<1.0	<1.0		4.8	<2.0	<2.0	<2.0	220			<100	327.31	13.04	314.27		
SR-2	7/6/2010	2100	28	<2.0	21	<2.0		38				820			<200	327.31	14.43	312.00 214 10		
SR-2	7/6/2010														~150	327.31	13.19	314.12 314 97		
SR-2	1/21/2011	<50	<0.50	<0.50	<0.50	<1.0		1.3	<1.0	<1.0	<1.0	53			<120	327.31	13.04	514.4/		
## GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Τ	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
CD 2	17/11/1989	500	97	10	43	100			·											
SR-3	12/11/1989	2 400	310	27	170	340														
SR-3	3/5/1990	70	15	0.8	5.8	10														
SR-3	6/14/1990	470	59	2.3	35	50														
SR-3	10/2/1990	1.700	91	6.2	7.0	100														
SR-3	12/18/1990	140	10	0.8	7.5	14														
SR-3	3/4/1994															329.11	14.66	314.45		
SR-3	6/16/1994															329.11	14.96	314.15		
SR-3	12/31/2001															329.11	13.60	315.51		
SR-3	9/27/2002	<2,500	<25	<25	<25	<25		11,000								328.65	14.75	313.90		
SR-3	12/27/2002	<2,000	<20	<20	<20	<20		5,100	<20	<20	<20	4,600	<20	<20		328.65	13.65	315.00		
SR-3	3/24/2003	<2,500	<25	<25	<25	<50		3,700								328.65	13.52	315.13		
SR-3	5/9/2003	<1,000	15	<10	19	48		3,700				8,400				328.65	12.15	316.50		
SR-3	7/8/2003	<1,000	<10	<10	<10	<20		2,800				8,300				327.50	30.00	297.50		
SR-3	10/15/2003	310	3.2	<2.5	9.1	30		240			,	3,600				327.50	15.39	312.11		
SR-3	1/6/2004	<500	<5.0	<5.0	<5.0	<10		26				3,300				327.50	30.29	297.21		
SR-3	4/7/2004	<50	<0.50	<0.50	<0.50	<1.0		4.4				370				327.50	15.49	312.01		
SR-3	7/27/2004	<50	<0.50	<0.50	<0.50	<1.0		9.0	<2.0	<2.0	<2.0	390			<50	327.50	15.34	312.16		
SR-3	10/29/2004	<100	<1.0	<1.0	<1.0	<2.0		15	<4.0	<4.0	<4.0	780			<100	327.50	15.22	312.28		
SR-3	1/6/2005	<50	<0.50	<0.50	<0.50	<1.0		6.3	<2.0	<2.0	<2.0	250				327.50	15.08	312.42		
SR-3	4/14/2005	58	0.76	<0.50	1.5	<0.50		46	<0.50	<0.50	<0.50	2,200			<5.0	327.50	30.53	296.97		
SR-3	7/29/2005	<50	<0.50	<0.50	<0.50	<1.0		6.7	<2.0	<2.0	<2.0	490			<50	327.50	21.81	305.69		
SR-3	10/20/2005	<50	<0.50	<0.50	<0.50	<1.0		3.3	<2.0	<2.0	<2.0	76			<50	327.50	29.19	298.31		
SR-3	1/26/2006	<50.0	<0.500	< 0.500	<0.500	< 0.500		3.34	<0.500	<0.500	<0.500	84.9			<50.0	327.50	31.00	296.50		
SR-3	4/24/2006	<50.0	1.67	<0.500	0.640	< 0.500		36.4	<0.500	<0.500	<0.500	315			<50.0	327.50	12.42	315.08		
SR-3	7/12/2006	<50.0	0.950	< 0.500	<0.500	<1.50		9.73	<0.500	<0.500	<0.500	724			<50.0	327.50	12.75	314.75		
SR-3	10/20/2006	73.3	<0.500	<0.500	< 0.500	< 0.500		5.64	<0.500	<0.500	<0.500	847			<50.0	327.50	13.93	313.57		
SR-3	1/22/2007	56	<2.0	<2.0	<2.0	<4.0		5.6	<4.0	<4.0	<4.0	1,300			<600	327.50	13.31	314.19		
SR-3	4/13/2007	66 k,l	<5.0	<10	<10	<10		16	<20	<20	<20	2,400			<1,000	327.50	13.61	313.89		
SR-3	7/9/2007	150 k,l	0.97	<1.0	0.33 m	<1.0		19	<2.0	<2.0	<2.0	1,300			<100	327.50	11.87	315.63		
SR-3	10/22/2007	51 k	<0.50	<1.0	<1.0	<1.0		8.3	<2.0	<2.0	<2.0	950			<100	327.50	13.40	314.10	·	
SR-3	1/9/2008	<50 k	<0.50	<1.0	<1.0	<1.0		5.2	<2.0	<2.0	<2.0	610			<100	327.50	13.61	313.89		
SR-3	4/11/2008	66	<0.50	<1.0	<1.0	<1.0		9.3	<2.0	<2.0	<2.0	830			<100	327.50	14.11	313.39		

CRA 200497 (1)

## GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	В	Τ	Ε	X	<b>8020</b>	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
SR-3	7/29/2008	60	<0.50	<1.0	<1.0	<1.0		7.1	<2.0	<2.0	<2.0	570			<100	327.50	14.85	312.65		
SR-3	10/29/2008	52	<0.50	<1.0	<1.0	<1.0		4.6	<2.0	<2.0	<2.0	390			<100	327.50	14.94	312.56		
SR-3	1/21/2009	320	4.0	<1.0	1.8	<1.0		11	<2.0	<2.0	<2.0	760			<100	327.50	12.47	315.03		
SR-3	4/16/2009	80	0.59	<1.0	<1.0	<1.0		5.8	<2.0	<2.0	<2.0	320			<100	327.50	12.49	315.01		
SR-3	7/9/2009	54	<0.50	<1.0	<1.0	<1.0		4.5	<2.0	<2.0	<2.0	250			<100	327.50	13.87	313.63		
SR-3	1/11/2010	190	1.7	<1.0	<1.0	<1.0		7.2	<2.0	<2.0	<2.0	390			<100	327.50	12.73	314.77		
SR-3	7/6/2010	100	<0.50	<1.0	<1.0	<1.0		2.3				110			<100	327.50	13.14	314.36		
SR-3	1/21/2011	63	<0.50	<0.50	<0.50	<1.0		1.8	<1.0	<1.0	<1.0	85			<150	327.50	12.74	314.76		
T <b>-1</b>	6/18/2002	<5,000	<50	<50	<50	<50		20,000									12.31			
T-2	9/17/2001	<5,000	<25	<25	<25	<25		29,000									11.48			
T-2	12/31/2001	<5,000	<50	<50	<50	<50		31,000					<del>-</del>				4.96			
T <b>-2</b>	3/13/2002	<5,000	<50	<50	<50	<50		48,000					·				9.76			
T-2	6/18/2002	<20,000	<200	<200	<200	<200		100,000									12.58			
T <b>-2</b>	9/27/2002	240	0.55	2.8	1.8	2.6		39									8.15			
T <b>-2</b>	12/27/2002	2,100	7.8	17	<0.50	11		790	<2.0	<2.0	2.7	1,200	<2.0	<2.0			6.75	·		
T-2	3/24/2003	550	<2.5	<2.5	<2.5	<5.0		310									11.68			
T <b>-2</b>	5/9/2003	220	0.66	0.55	<0.50	1.8		100				92					6.40			
T-2	7/8/2003	<500	13	7.4	<5.0	22		990				120					8.16			
T-2	10/15/2003	220 e	<0.50	<0.50	<0.50	<1.0		13				23		~~~			11.15			
T-2	1/6/2004	710	<0.50	<0.50	<0.50	1.2	·	14				9.2			·		9.10			
T-2	4/7/2004	570 e	5.4	<0.50	<0.50	1.2	·	5.6				11					10.54			
T-2	7/27/2004	270	17	1.2	<0.50	2.0		2.9	<2.0	<2.0	<2.0	7.9			<50		9.89			
T-2	10/29/2004	180	<0.50	<0.50	<0.50	<1.0		4.2	<2.0	<2.0	<2.0	23			<50		9.42			
T-2	1/6/2005	1,100	0.83	<0.50	<0.50	3.5	·	3.0	<2.0	<2.0	<2.0	12					7.98			
T-3	6/18/2002						, <b></b>										Dry			
T-4	6/18/2002	<10,000	<100	<100	<100	<200		97,000	·								13.50			
T-4	12/27/2002	550	5.3	16	0.60	39		140	<2.0	<2.0	<2.0	120	<2.0	<2.0	;		7.65			
T-4	3/24/2003	1,400	<0.50	1.0	1.2	3.6		15				·					12.88			
T-4	5/9/2003	<50	<0.50	<0.50	<0.50	1.6		14				5.2					7.59			
T-4	7/8/2003	730	26	8.9	10	19		1,000	·			150	·				9.33			
T-4	10/15/2003	1,200	15	6.1	2.8	11		310				980					11.80			

## GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Meth D         Date         TPH H         B         T         E         X         8020         2040         10/PE         1502         10/DA								MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
(mg/L)         (mg/L)<	Well ID	Date	TPPH	B	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	TOC	Water	Elevation	Thickness	Reading
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	T-4	1/6/2004	68	1.1	<0.50	<0.50	<1.0	·	12				<5.0					9.78			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	T-4	4/7/2004	1,600	5.1	0.57	<0.50	2.3		6.1				<5.0					11.15			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	T-4	7/27/2004	590	5.3	0.83	0.52	2.2		4.8	<2.0	<2.0	<2.0	7.5			<50		10.93			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	T-4	10/29/2004	83	<0.50	<0.50	<0.50	<1.0		1.2	<2.0	<2.0	<2.0	<5.0	<sub>.</sub>		<50		10.06			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	T-4	1/6/2005	430 g	<0.50	<0.50	<0.50	<1.0		9.6	<2.0	<2.0	<2.0	<5.0					8.69			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	5/9/2003															331.33	28.50	302.83		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	7/8/2003							· · · · ·								331.33	28.50	302.83		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	10/15/2003															331.33	28.52	302.81		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	1/6/2004					·									·	331.33	28.21	303.12		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	4/7/2004															331.33	28.54	302.79		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	7/27/2004															331.33	28.58	302.75		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	10/29/2004															331.33	28.58	302.75		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	1/6/2005															331.33	28.55	302.78		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	4/14/2005									·						331.33	28.55	302.78		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	7/29/2005													"		331.33	28.54	302.79		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	10/20/2005							· ·					·			331.33	31.11	300.22		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	1/26/2006															331.33	31.15	300.18		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	4/24/2006							·		'						331.33	32.07	299.26		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	7/12/2006															331.33	29.30	302.03		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	10/20/2006													<u> </u>		331.33	31.64	299.69		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	1/22/2007															331.33	30.03	301.30		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	4/13/2007								·							331.33	30.21	301.12		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	7/9/2007						·									331.33	33.38	297.95		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	10/22/2007				·											331.33	33.18	298.15		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	1/9/2008		·													331.33	28.21	303.12		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	4/11/2008							·	- <u>-</u> -							331.33	33.52	297.81		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	7/29/2008														·	331.33	30.91	300.42		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	10/29/2008				·					·						331.33	31.02	300.31		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	1/21/2009															331.33	30.54	300.79		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	4/16/2009															331.33	30.61	300.72		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	C-1	7/9/2009															331.33	30.74	300.59		
C-1 7/6/2010 920 230 <5 150 150 331.33 30.92 300.41	C-1	1/11/2010															331.33	30.83	300.50		
	C-1	7/6/2010	920	230	<5	150	150				<u> </u>						331.33	30.92	300.41		

### GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPPH (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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
C-1	1/21/2011															331.33	34.46	296.87		

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to June 18, 2001, analyzed by EPA Method 8015.

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to June 18, 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-dibromoethane analyzed by EPA Method 8260

TOB = Top of Well box Elevation

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

DO = Dissolved Oxygen

ppm = Parts per million

ug/L = Parts per billion

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

--- = Not applicable

(D) = Duplicate sample

#### Notes:

a = Compounds detected within the chromatographic range of gasoline but not characteristic of the standard gasoline pattern.

b = This sample was analyzed outside of the EPA recommended holding time.

c = Samples for wells S-6 and S-7 may have been switched.

d = Survey date only.

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

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

g = Quantity of unknown hydrocarbon(s) in sample based on gasoline.

h = Due to the low levels of analyte found in the sample, the analyte was qualitatively identified based on the compound's retention time and the presence of a single mass ion.

CRA 200497 (1)

## GROUNDWATER DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

							MTBE	MTBE					1,2-				Depth to	GW	SPH	DO
Well ID	Date	TPPH	B	Τ	Ε	X	8020	8260	DIPE	ETBE	TAME	TBA	DCA	EDB	Ethanol	тос	Water	Elevation	Thickness	Reading
•		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ft.)	(ppm)
i = Estimate this data	ed value. A is of limite	nalyte de d reliabili	tected at ty.	t a level l	less than	the Rep	orting Li	mit (RL)	and grea	iter than	or equal	to the N	/lethod l	Detectio	n Limit (M	IDL). Th	e user of th	uis data shou	ıld be aware	e that
j = Hydroca	arbon result	partly du	ie to ind	ividual j	peak(s) 1	n quanti	tation rai	nge.												
k = Analyz	ed by EPA l	Method 8	015B (M	).												_				
l = The sam	ple chroma	tographic	pattern	for TPH	l does no	t match	the chro	matograj	phic patt	ern of th	e specifie	ed stand	ard. Qu	lantitati	on of the u	inknown	hydrocarb	on(s) in the	sample	
was base	ed upon the	specified	standar	a.								1.								
m = Analyt	e was detec	ted at a co	oncentra	ation belo	ow the re	eporting	limit and	l above t	he labora	atory me	ethod det	ection II	mit. Rej	portea v	alue is est	imated.				
Ethanol and	alyzed by E	PA Metho	od 8260.																	
Corrected g	groundwate	r elevatio	n when	SPH is p	resent =	Top of <b>C</b>	Casing El	evation -	· Depth t	o Water	+ (0.8 x I	Iydroca	rbon Th	ickness)	).					
Well T-2 is	a backfill w	ell.																		
Beginning S	September 2	23, 2002 d	epth to v	water ref	erenced	to Top o	f Casing													
All wells ex	cept S-11, S	-12, and 7	Γ-1 throι	ugh T-4 s	urveyed	March	11, 2002	oy Virgil	Chavez	Land Su	rveying	of Vallej	o, CA.							
Survey dat	a for wells S	5-11 and S	-12 prov	vided by	Cambria	. Enviro	nmental	Technolo	gy, Inc.											
C-1 survey	ed March 18	3, 2003 by	Virgil C	L L avez L	and Surv	veying o	f Vallejo,	CA.												
Wells SR-1,	SR-2, and S	SR-3 surve	eved Ser	otember	22, 2003	by Virgi	l Chavez	Land Su	rveying	of Vallej	jo, CA.									
4Q05 surve	y data for v	vells S-5B,	, <b>S-5</b> C, S	-9B, S-9C	C, and S-2	14 provi	ded by D	elta Env	ironmen	tal Cons	ultants, I	nc.								

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### HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

															Chlorinated								
		Depth						Ethyl-	Total			Other	1,2-		Hydro-						Benzoic		
Sample ID	Date	(fbg)	0&G	TPHd	TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	TBA	OXYs	DCA	EDB	carbons	Cd	Cr	Pb	Ni	Zn	Acid	РСР	PCBs
CPT-1-66	7/26/2002	66			<50	<0.50	1.6	<0.50	<0.50	<5.0											<u> </u>		
CPT-1-79	7/26/2002	79			<50	<0.50	1.6	< 0.50	<0.50	<5.0													
CPT-2@26ª	11/25/2002	26			<50	<0.50	<0.50	<0.50	<0.50	<5.0													
CPT_2@42 <sup>a</sup>	11/25/2002	42			<50	< 0.50	<0.50	<0.50	<0.50	<5.0								<u> </u>					
CPT_2@50 <sup>a</sup>	11/25/2002	50			<50	<0.50	<0.50	<0.50	<0.50	<5.0		·											
CPT 2048	11/25/2002	68			<50	< 0.50	<0.50	<0.50	< 0.50	<5.0								·					
CPT-2@58 <sup>'a</sup>	11/25/2002	88		_	<50	<0.50	<0.50	<0.50	<0.50	<5.0													
SB-5-W	10/8/2004				3,300	14	1.1	150	7.9	45	290				,		·						
SB-7-W	10/8/2004				900	15	<5.0	46	<10	67	1600												
SB-9-W	10/7/2004		<del></del> .		13,000	17	5.2	91	57	390	3,000												
SB-12-W	10/6/2004				17,000	37	<25	460	<50	2,600	9,500												
SB-13-W	10/7/2004				30,000	<100	<100	3,300	<200	10,000	8 <b>,2</b> 00												
	2/16/2005	55 60			<50	12	<0.50	3.0	3.0	0.54	<5.0								·				
CPT-4 CPT-4	2/16/2005	55-60 70-74			<50	< 0.50	<0.50	1.1	1.3	<0.50	<5.0									·			
CPT 5	2/18/2005	59.62			150	0.64	<0.50	1.7	1.3	1.2	6.8												
CPT-5	2/18/2005	76-80			620	16	0.66	32	14	19	39								_				
CPT 6	2/18/2005	59-63			<50	< 0.50	<0.50	<0.50	<1.0	<0.50	<5.0												
CPT-6	2/18/2005	75-78			<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0						****						
CPT-7	2/16/2005	20-35			<50	<0.50	<0.50	<0.50	<1.0	160	<5.0												
CPT-7	2/16/2005	60-63			<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0												
CPT-7	2/16/2005	75-80			<50	< 0.50	<0.50	<0.50	<1.0	<0.50	<5.0		1		<u> </u>								
	2/16/2005	60.63			<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0												
CPT-8	2/16/2005	75-80			<50 <50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0												
CPT-9	2/18/2005	58-62			<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0												
CPT-9	2/18/2005	74-77		,	<50	<0.50	<0.50	< 0.50	<1.0	<0.50	<5.0												

		Devth						Ethyl-	Total			Other	1,2-		Chlorinated Hydro-						Benzoic		
Sample ID	Date	(fbg)	0&G	TPHd	TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	TBA	OXYs	DCA	EDB	carbons	Cd	Cr	Pb	Ni	Zn	Acid	РСР	PCBs
CPT-10	2/17/2005	20-38			<100	<1.0	<1.0	<1.0	<2.0	200	11					<b></b> .							
CPT-10	2/17/2005	62-64			<50	<0.50	< 0.50	< 0.50	<1.0	<0.50	<5.0							<u></u>	·				
CPT-10	2/17/2005	76-80			<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0							·					
CPT-11	2/17/2005	63			<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	、 <del></del>											
CPT-11	2/17/2005	70-74	,	·	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0			<u> </u>									
CPT-5A@65'	9/9/2005	61-64			<50	0.84	<0.5	1.4	2.8	1.4	<5.0												
CPT-5A@78'	9/9/2005	74-78			<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0												
WO-W	2/14/2007		<4,700	<480	<50	0.67	0.75	0.73	<1.0	1.6	<10	ND	<2.0	<0.50	ND	<5.0	47	9.4	130	500	32	<20	<0.94

5.0

20

NÅ

0.50 0.050 Various 1.1

50

Groundwater ESL<sup>b</sup>: NA 100

Notes:

All results in micrograms per liter  $(\mu g/l)$  unless otherwise indicated.

fbg = Feet below grade

O&G = Oil and grease as hexane extractable material by EPA Method 1664 A (Modified)

TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015 (Modified)

TPHg = Total petroleum hydrocarbons as gasoline; analyzed by EPA Method 8260B

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

Other CXYs = Di-isopropyl ether, ethyl tertiary-butyl ether, and tertiary-amyl methyl ether by EPA Method 8260B

100

10-

1,2-DCA = 1,2-Dichloroethane by EPA Method 8260B

EDB = 1,2-Dibromoethane by EPA Method 8260B

Chlorinated hydrocarbons by EPA Method 8260B; see laboratory analytical report for a complete list of specific constituents

Cd = Cadmium by EPA Method 6010B

Cr = Chromium by EPA Method 6010B

Pb = Lead by EPA Method 6010B

Ni = Nickel by EPA Method 6010B

Zn = Zinc by EPA Method 6010B

Benzoic Acid by EPA Method 8270C. No other polynuclear aromatics detected; see laboratory analytical report for a complete list of specific constituents PCP = Pentachlorophenol by EPA Method 8270C

PCBs = Polychlorinated biphenyls by EPA Method 8082; see laboratory analytical report for a complete list of specific constituents

2.5 8.2 81 NA 1.0 0

### HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

		Depth						Ethyl-	Total			Other	1,2-		Chlorinated Hydro-						Benzoic		
Sample ID	Date	(fbg)	0&G	TPHd	TPHg	Benzene	e Toluene	benzene	Xylenes	MTBE	ТВА	OXYs	DCA	EDB	carbons	Cd	Cr	Pb	Ni	Zn	Acid	РСР	PCBs
<x =="" dete<="" not="" td=""><td>cted at rep</td><td>orting li</td><td>nit x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></x>	cted at rep	orting li	nit x																				
ND = Not det	ected; see	laborator	y analy	tical repo	ort for co	onstituent	t-specific 1	reporting	limits														
- = Not applie	cable																						
< x = Not dete	cted at rep	orting li	nit x																				
NA = No app	licable ESL	-																					
Shading indic	ates that sa	ample loo	cation su	ıbsequer	ntly over	r-excavate	ed, results	are not r	epresenta	tive of re	esidual s	oil.											
ESL = Enviror	umental sc	reening l	evel																				
a = Labeled as	CPT-1 in	laborato	ry repor	ts																			
b = San Franci potential sour	isco Bay Ro ce of drink	egional V cing wate	Vater Qu er (Table	uality Co s A and	ontrol Bo C of <i>Scre</i>	oard Envi eening for	ronmenta Environme	1 Screenir ental Conc	ng Level f ærns at Si	or groun tes With (	dwater Contamin	where gro ated Soil	oundwa and	ter is a									

Groundwater, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

## SOIL VAPOR ANALYTICAL DATA SHELL-BRANDED SERVICE STATION 3790 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Sample ID	Date	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
T-2	4/29/2002	<5.0	<0.050	<0.050	<0.050	0.083	<0.10
T-3	4/29/2002	<5.0	<0.050	0.120	<0.050	0.12	<0.10
T1-N	7/18/2002	6,000	1.8	<1.0	<1.0	<1.0	360
Т2-Е	7/18/2002	10,000	4.2	1.0	<1.0	1.2	460
T3-S	7/18/2002	7,100	1.3	<1.0	<1.0	<1.0	780
T4-W	7/18/2002	3,800	<1.0	<1.0	<1.0	<1.0	170

Notes:

All results in parts per million by volume (ppmv).

TPHg = Total petroleum hydrocarbons as gasoline; analyzed by EPA Method 8260B

Benzene, toluene, ethylbenzene, and xylenes EPA Method 8260B

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

<x = Not detected at reporting limit x

## APPENDIX A

## SITE HISTORY

## SITE HISTORY

**1986** Subsurface Investigation: In January 1986 Emcon Associates (Emcon) advanced five soil borings (S-A through S-E) to profile soil impacts for soil disposal during anticipated underground storage tank (UST) replacement activities. A soil sample from boring S-A located adjacent to the waste oil UST at 7 to 8.5 feet below grade (fbg) was analyzed for waste oil only, and no waste oil was detected. Borings S-B through S-E were drilled in the vicinity of the three fuel USTs. Soil samples collected from these borings contained up to 5,100 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg), 14 mg/kg benzene, 130 mg/kg toluene, and 1,200 mg/kg xylenes. A temporary well was installed in boring S-C. A 1/16-inch film of separate phase hydrocarbon was found in the well 9 days after the temporary well was installed. Emcon's March 21, 1986 report details this investigation.

**1987** Subsurface Investigation: In October 1987, Pacific Environmental Group, Inc. (PEG) installed two UST backfill wells (ST-1 and ST-2) and two groundwater monitoring wells (S-1 and S-2). Soil samples contained up to 57 mg/kg TPHg and 6.7 mg/kg benzene. PEG's December 4, 1987 report provides well installation details.

*January* 1988 Subsurface Investigation: PEG installed wells S-3 through S-5 at the site. Soil samples collected from the well borings contained up to 4,700 mg/kg TPHg, 50 mg/kg benzene, 170 mg/kg toluene, and 900 mg/kg xylenes. PEG's March 10, 1988 report provides well installation details.

*April* 1988 Subsurface Investigation: Woodward-Clyde Consultants (Woodward-Clyde) conducted a soil investigation prior to removal of the fuel USTs.

1988 UST Removal: In August 1988, three gasoline USTs were removed from the site. Kaprealian Engineering, Inc. (Kaprealian) collected six soil samples (A-1, A-2, B-1, B-2, C-1, and C-2) beneath the tanks at 14 fbg. The soil samples contained up to 2,100 mg/kg TPHg, 13 mg/kg benzene, 110 mg/kg toluene, 72 mg/kg ethylbenzene, and 350 mg/kg xylenes. The UST excavation was then over-excavated up to 20.5 fbg, and Kaprealian collected four additional soil samples (A1X, A2X, B2X, and C-1X) at 16 to 20.5 fbg. These soil samples contained up to 80 mg/kg TPHg, 1.3 mg/kg benzene, 2.6 mg/kg toluene, 3.4 mg/kg ethylbenzene, and 16 mg/kg xylenes. In addition, well S-1 was properly destroyed due to the construction. A new UST pit was excavated, and

three fuel USTs were subsequently installed. Three soil samples (A5, A-10, and A-15) were collected during the tank pit excavation. These soil samples contained up to 4.4 mg/kg TPHg and 1.3 mg/kg benzene.

October 1988 Subsurface Investigation: Woodward-Clyde installed two groundwater monitoring wells (S-6 and S-7) to further delineate groundwater impacts down gradient. Soil samples collected from the well borings contained up to 9 mg/kg TPHg, 0.05 mg/kg benzene, and 0.1 mg/kg ethylbenzene. Woodward-Clyde's January 18, 1989 Environmental Assessment Report provides well installation details.

*February* 1989 *Subsurface Investigation:* Woodward-Clyde installed two groundwater monitoring wells (S-8 and S-9). Soil samples collected from the well borings did not contain TPHg or BTEX. Woodward-Clyde's May 11, 1989 report presents well installation details.

August and September 1989 Subsurface Investigation: Geostrategies Inc. (Geostrategies) installed a monitoring well (S-10) and three extraction wells (SR-1 through SR-3). No TPHg or benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in soil samples collected from well S-10. Soil samples from the recovery well borings contained up to 67 mg/kg TPHg and 5.4 kg/kg benzene. Geostrategies December 4, 1989 Quarterly Report July –September 1989 details the well installations.

**1990** Aquifer Test: In February 1990, Geostrategies conducted a constant-rate pump test on well SR-3 at the site, and slug tests on wells SR-3, S-2, S-3, S-5, and S-7 through S-10. Calculated hydraulic conductivity values ranged from 1.0 to 10.5 feet per day based on SR-3 pump test results, and from 3.2 to 58.2 feet per day based on slug test results. Geostrategies May 25, 1990 Aquifer Test Report presents pump test and slug test results.

**1997** *Risk Assessment:* In January 1997, Cambria Environmental Technology, Inc. (Cambria) submitted a risk evaluation for the site noting that the site met criteria for a low-risk groundwater site. Cambria's January 15, 1997 report provides details of the risk assessment.

**1998** *Fuel System Upgrades:* In June 1988, Gettler-Ryan added secondary containment to the gasoline UST fill ports and removed the waste oil remote fill piping. Cambria inspected the UST pit, stockpiled pea gravel, and waste oil UST remote fill piping removal. No field indications of hydrocarbons, such as

staining or odor, were observed during the site visit. Cambia's September 22, 1998 1998 Upgrade Site Inspection Report presents inspection details.

**2001-2003** *Mobile Groundwater Extraction (GWE):* In May 2001, Advanced Cleanup Technologies Inc. (ACT) conducted three weekly 8-hour mobile GWE events using site monitoring wells S-2 and S-4 and tank backfill well T-2. In August 2001, ACT conducted three additional GWE events. In April 2002, Onyx Industrial Service (Onyx) initiated twice-monthly events extracting from tank backfill well T-2. Between June 2002 and September 2002, Onyx also extracted groundwater from well S-4. Extraction from well S-4 was discontinued due to low extraction volumes. Tank backfill well T-4 was added to the twice-monthly extraction events in October 2002. Through the end of February 2003, an estimated 0.96 pounds of TPHg and 9.31 pounds of methyl tertiary-butyl ether (MTBE) were removed via GWE. Mobile GWE details are provided in Cambria's groundwater monitoring reports for this period.

2002-2003 Sensitive Receptor Survey: In April 2002, Cambria submitted a sensitive receptor survey for the site. Based on a review of Department of Water Resources records, six wells were identified within a ½-mile radius of the site, including one active municipal well (Hopyard 6), one destroyed municipal well (Hopyard 1), one abandoned irrigation well (which could not subsequently be located), one destroyed irrigation well, and two wells of unknown use. The active municipal well is located approximately ¼-mile south of the site. The nearest surface water body identified is the Arroyo Mocho Canal located approximately 400 feet south of the site. Based on utility survey results, utilities in the site vicinity are not expected to affect groundwater flow or to provide preferential groundwater migration pathways. Cambria's April 9, 2002 Sensitive Receptor Survey Report summarizes the survey data. Cambria's March 28, 2003 Subsurface Investigation Report provides a revised utility survey.

**2002** Soil Vapor Investigation: In April and July 2002, Cambria conducted a soil gas survey in the UST backfill wells (T-1 through T-4). Soil vapor samples contained up to 10,000 parts per million by volume (ppmv) TPHg, 4.2 ppmv benzene, 1.0 ppmv toluene, 1.2 ppmv xylenes, and 780 ppmv MTBE. Ethylbenzene was not detected in the soil vapor samples.

**2002** Dispenser and Piping Upgrades: In July 2002, Paradiso Mechanical, Inc. (Paradiso) replaced and upgraded the fuel dispensers and product, vapor, and vent lines. Additionally, Paradiso added dispenser pans under the new

dispensers and replaced the UST fuel fill port sumps and all associated piping in the tank pit area above the USTs. Cambria collected three piping samples (P-1 through P-3) and four dispenser samples (D-1 through D-4). Soil samples contained up to 260 mg/kg TPHg and 0.079 mg/kg benzene. MTBE was not detected in the soil samples. Cambria's January 21, 2003 *Dispenser and Piping Upgrade Soil Sampling Report* summarizes soil sampling results.

**2002** Subsurface Investigation: Between July 2002 and September 2002, Cambria installed two down-gradient groundwater monitoring wells (S-11 and S-12) and drilled two cone penetrometer test (CPT) borings (CPT-1 and CPT-2). Soil samples from the well borings did not contain TPHg, BTEX, or MTBE. Grab groundwater samples from CPT borings did not contain TPHg, BTEX, or MTBE with the exception of 1.6 micrograms per liter ( $\mu$ g/L) toluene detected in samples from CPT-1. Cambria's March 28, 2003 Subsurface Investigation Report provides well installation and CPT boring data.

2003-2006 GWE: From July 2003 until May 2006, Cambria and then Delta Consultants (Delta; beginning in February 2005) operated a GWE system using three groundwater recovery wells (SR-1 through SR-3) and one UST backfill well (T-3). The GWE system extracted and treated an estimated 3,142,212 gallons of water containing an estimated 15.7 pounds of MTBE. Delta's July 15, 2006 Second Quarter 2006 Quarterly Monitoring and Remediation Status Report summarizes GWE operation details.

**2003** Agency Response, Site Conceptual Model (SCM), and Work Plan: Cambria's April 29, 2003 Site Investigation Work Plan included responses to the ACEH's February 27, 2003 letter, an SCM, and a corrective action plan.

**2004** Agency Response, Revised SCM, and Modified Work Plan: Cambria's June 30, 2004 Agency Response, Revised SCM, and Modified Work Plan responded to the ACEH's May 5, 2004 letter, provided a revised SCM, and provided a modified work plan. The SCM included a discussion of the occurrence of tertiary-butyl alcohol (TBA) as a biodegradation byproduct of MTBE.

**2004** Subsurface Investigation: In October 2004, Cambria drilled 13 soil borings (SB-1 through SB-5, SB-7 through SB-9, and SB-11 through SB-15) to assess the vertical extent of soil and groundwater impacts on site. Soil samples from the borings contained up to 950 mg/kg TPHg, 5.0 mg/kg benzene, 4.1 mg/kg MTBE, and 14 mg/kg TBA. Grab groundwater samples collected from borings SB-5, SB-7, SB-9, SB-12, and SB-13 contained up to 30,000 μg/l TPHg, 37 μg/l

benzene, 10,000 µg/1 MTBE, and 9,500 µg/1 TBA. Cambria's February 8, 2005 *Subsurface Investigation Report* provides investigation details.

*February* 2005 *Subsurface Investigation:* Delta drilled nine CPT borings to further investigate the vertical extent of groundwater impacts. Grab groundwater samples collected from the CPT borings contained up to  $620\mu g/1$  TPHg,  $16 \mu g/1$  benzene,  $200 \mu g/1$  MTBE, and  $38 \mu g/1$  TBA. In addition, soil samples were collected from borings CPT-3 and CPT-5. These samples contained up to 0.018 mg/kg ethylbenzene, 0.020 mg/kg xylenes, and 0.56 mg/kg TBA. No TPHg, benzene, toluene, or MTBE were detected in the soil samples. Delta's March 24, 2005 *CPT Soil and Groundwater Investigation Report* provides details of this investigation.

September and October 2005 Subsurface Investigation: In September 2005, Delta drilled one CPT boring (CPT-5A) and in October 2005, Delta installed six groundwater monitoring wells (S-5B, S-5C, S-9B, S-9C, S-14 and S-15) to further investigate the vertical extent of groundwater impacts. Grab groundwater samples collected from boring CPT-5A contained up to 0.84  $\mu$ g/l benzene and 1.4  $\mu$ g/l MTBE. No TPHg, toluene, or TBA was detected in the grab groundwater samples. Delta's November 21, 2005 *Well Installation Report* provides details of this investigation.

**2007** *Waste Oil UST Removal:* In February 2007, Wayne Perry, Inc. (Wayne Perry) removed one 550-gallon single-wall fiberglass waste oil UST. Cambria observed the UST removal and collected soil and grab groundwater samples from the UST excavation. The soil sample (WO-1-9) collected from the UST excavation contained 0.88 mg/kg TPHg, 0.0017 mg/kg toluene, 0.010 mg/kg ethylbenzene, 0.057 mg/kg total xylenes, 52 mg/kg chromium, 8.0 mg/kg lead, 53 mg/kg nickel, and 56 mg/kg zinc. The grab water sample (WO-W) collected from the UST excavation contained 0.67 ( $\mu$ g/l) benzene, 0.75  $\mu$ g/l toluene, 0.73  $\mu$ g/l ethylbenzene, 1.6  $\mu$ g/l MTBE, 47  $\mu$ g/l chromium, 9.4  $\mu$ g/l lead, 130  $\mu$ g/l nickel, 500  $\mu$ g/l zinc, and 32  $\mu$ g/l benzoic acid. Based on these concentrations, Shell submitted an Underground Storage Tank Unauthorized Release (Leak)/Site Contamination Report (Unauthorized Release Report) on March 7, 2007. Cambria's May 23, 2007 *UST Removal Report* presents the UST removal details.

2010 Subsurface Investigation: In May and June 2010, Delta drilled two soil borings (SB-17 and SB-18) to further define the source area. Soil samples collected from the borings contained up to 1,100 mg/kg TPHg. No BTEX,

MTBE, or TBA was detected in the soil samples. Delta's July 16, 2010 Second Quarter 2010 Quarterly Feasibility Study and Site Investigation Report provides details of this investigation.

**2010** Magnesium Sulfate (MgSO<sub>4</sub>) Injection Feasibility Study: In May and August 2010, Delta conducted a MgSO<sub>4</sub> injection feasibility study on wells S-2 and S-4. Approximately 75 gallons of MgSO<sub>4</sub> solution were gravity-fed into each well during each event. Based on subsequent groundwater sampling, Delta concluded that the MgSO<sub>4</sub> injections were of limited effectiveness. Delta's November 15, 2010 Third Quarter 2010 Semiannual Groundwater Monitoring Report & FS Report presents MgSO<sub>4</sub> injection details.

1987-Present Groundwater Monitoring: Groundwater monitoring was initiated in November 1987 and is currently conducted semiannually during the first and third quarters. Historical depth to shallow groundwater has typically ranged between 12 and 19 fbg, and groundwater flow direction is generally southsoutheast to southeast.

## APPENDIX B

## CROSS SECTIONS AND EXPLORATORY BORING LOGS











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Dry	BOREHOLE WAS DRY OR CONTAINED INSUFFICIENT WATER FOR SAMPLE COLLECTION	<10/<100	MTBE/TBA CONCENTRATIONS IN GROUNDWATER (ug/L) ("SEE EXPLANATION FOR SAMPLING DATES)	Se We Sa

SB Borings Drilled and Sampled October 2004 PT Borings CPT-3 through CPT 11 Drilled and ampled February 2005 PT Boring CPT-5A Drilled and Sampled

eptember 2005 ells S-5, S-5B, S-5C, S-9, S-9B, S-9C, S-14 ampled November 11, 2005













	FIGURE 5		
CROSS	SECTION C	τo	C.

SHELL-BRANDED SERVICE STATION 3790 Hopyard Road Pleasanton, California

UECT NO. 7-90H-1 2005	DRAWN BY JL 11/11/06
NO. 7-90H-1.2005	PREPARED BY
ISION NO. 1	REVIEWED BY







# FIGURE 6 CROSS SECTION D TO D

SHELL-BRANDED SERVICE STATION 3790 Hopyard Road Pleasanton, California

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JECT NO. 7-90H-1 2005	DRAWN BY
NO	PREPARED BY
7-904-1.2005	L.D.
SION NO.	REVIEWED BY
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BOREHOLE WAS DRY OR Dry CONTAINED INSUFFICIENT WATER FOR SAMPLE COLLECTION

GROUNDWATER (ug/L); SB BORINGS DRILL OCTOBER 2004, CPT BORINGS **DRILLED FEBRUARY 2005** 

GROUNDWATER (ug/L). S12 - 07/29/05; S-9, S-98 AND S-9C - 11/11/05



APPROX SCALE

PR SJ FILJ SJ REV

FIGURE 7										
CROSS SECTION E TO E										
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E NO. 137-90H-1.2005	PREPARED BY	Delta								
VISION NO.	REVIEWED BY	Environmental Consultanta, inc.								

LOCATION MAP Hopyard	d Rd.	PACIFIC	EN	VIRC	DNMENTAL GROUP, INC. WELL / BORING NO. S-1					
Tanks. O Tanks. O Tanks. O Service Islands Service Islands But But But But But But But But	ation uilding	PROJEC LOGGED DRILLING SAMPLIN CASING SLOT SIZ GRAVEL	PAGE 1 OF 1PROJECT NO. 101-08.01CLIENT: G-R/SHELLLOGGED BY: E.L.DATE DRILLED: 10/28/87DRILLING METHOD: HSALOCATION: Hopyard & Los PositasSAMPLING METHOD: CAL MOD.HOLE DIAMETER: 8"CASING TYPE: SHC. #40 PVCHOLE DEPTH: 35'SLOT SIZE: 0.020WELL DEPTH: 35'GRAVEL PACK: 12 X 20 SANDWELL DIAMETER: 3"							
WELL HE	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet) SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS					
S       TIP         Concrete       Dp         Dp       31.5         Dp       85.0         Dp       454         V       Dp         V       597         Wt       597         Wt       2.0         Wt       64.5         Wt       4.0	NH2 P 27 6 9 9 9 111 9	2       4         4       6         8       10         12       14         14       16         18       20         24       26         24       26         28       30         30       32         34       36         38       40	GPA	CL CL	<ul> <li>ASPHALT &amp; BASEROCK FILL</li> <li>CLAY; gray; trace silt; moderate plasticity; 5-10% fine sand; trace medium sand to fine gravel; faint product odor.</li> <li>@ 5'; as above; thin (1") interbed of fine sand; gravel saturated with black product; strong product odor.</li> <li>CLAY; black; high plasticity; trace fine sand; very stiff; faint product odor.</li> <li>CLAY; black; moderate plasticity; trace silt; 5-10% organics; hydrogen sulfide odor; rootlets; medium stiff; faint product odor.</li> <li>@ 19'; as above; stiff; no product odor.</li> <li>@ 24'; as above; occasional 1"-2" thick peaty clay interbeds; hydrogen sulfide odor; stiff; no product odor.</li> <li>@ 29'; as above; peat absent; stiff; no product odor.</li> <li>@ 33.5'; as above; trace fine to medium sand; 5-10% coarse sand to fine gravel; stiff; no product odor.</li> <li>BOTTOM OF BORING AT 35 FEET</li> </ul>					
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LOCATION N	ЛАР	Hopyard	Rd.	PACI	FIC	EN	VIR	ONMENTAL GROUP, INC. WELL / BORING NO. S-2				
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WELL COMPLETION	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS						
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						61 —	+							
			wet									······		
					8	62		ani yi	GW	Well Graded GRAV	EL with sa	and: grey, 1/4 to 1.5" gravel,		
					13	63-	0,000,00	autoliuus		10-20% well graded	sand, dens	Se		
					36									
						64 —					<u></u>			
				0.3		-						· · · · · · · · · · · · · · · · · · ·		
		]				65	IntelOW4							
						66								
						<u> </u>				I				

				Project N	No:	SJ37-90	)H-1		Clien	t:	Shell Oil Products	Shell Oil Products US Well No: S-5c			
				Logged I	By:	Heather	Buckingha	m	Loca	tion:	3790 Hopyard Roa	ıd	Page 4 of 4		
			1.	Driller:	·	Gregg	-		Date	Dritled:	10/31/2005	Location Map			
			IA.	Drilling N	lethod:	HSA			Hole	Diamete	er: 10 inch	linch			
			LCL .	Sampling Method:		CA Mod	. Split-Sho	ė	Hole	Depth:	77.5 feet	Please se	e site map		
Er	viror	ıme	ntal	Casing T	vpe:	Sched, 4	40 PVC	•	Well	Diamete	er: 4 inch				
Cor	sulta	ants	. Inc.	Slot Size	); :	0.02			Well	Denth:	77 feet				
			,	Gravel P	ack:	#3			Casing Stickup:		up: n/a				
					Elevation		·	Nort	hing		Easting				
Cor	vveii noletio	n	<b>.</b>	0	<u> D</u> u	50	<del>R</del>	Sa	mole	đ					
-			Static	stun	m)	ration's/6	l T	2	=	Гyр			DESCRIPTION		
ickf	asin		Level	Con	8 <u>6</u>	enet olow	ta fa	No.	ŝ	ō	[	HULUGI	DESCRIPTION		
́В́	Ö			_	1d	4 -	ď	Rec	<u>t</u>	"					
					•										
							67			1.1					
							0/			r -					
<u>ē</u>	-						68								
Ō							<b>–</b>			:					
							69			_					
				wet	• •	16				SP	Poorly Graded Coan	se Grained	<b>SAND</b> : ~10% 1/4"		
		· .	-		0.1	50 for 4"	70				gravel, 10-20% clay, i	medium der	ISE		
ite		_				16									
nton	-					50 for 4"	71								
Ber		$\neg$		1											
						50 for 6	72				· · · · · · · · · · · · · · · · · · ·				
				wat						80	Clavey SAND: modiu	m brown A	0 45% clay 55 60% fine		
	-			WEL		15	73			30	Grained sand low play	sticity done	-45% clay, 55-60% lifte		
		-				16					graineu sanu, iow pia	sucity, dens			
g						28	74								
Sar											· · ·				
					0.1		75			sw	Coarse Grained SAM	D' same a	s above		
				wet						••••					
-							/6			SC	Clavey SAND: same	as above.	arev		
												······	· · · · · · · · · · · · · · · · · · ·		
		_				50 for 5"	//								
	_						78				Boring terminated at 7	77.5 feet be	low ground surface		
							/0								
		.		×			79								
1							<sup>70</sup> _								
							80		<u> </u>				· · · · · · · · · · · · · · · · · · ·		
		$\neg$					- 1						· · · · · · · · · · · · · · · · · · ·		
							81		<b> </b>		· · · · · · · · · · · · · · · · · · ·				
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							82				····		· · · · · · · · · · · · · · · · · · ·		
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							83						· · · · · · · · · · · · · · · · · · ·		
		-								1. A. A.	· · · · · ·	··· •·	······································		
							84						· · · · · · · · · · · · · · · · · · ·		
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							88								
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			Project No: SJ37-90H-1					Client: Shell Oil Products US Well No: S-5b			Well No: S-5b		
			Logged B	y:	Heather I	Buckinghar	n	Locat	ion:	3790 Hopyard Road	ł	Page 1 of 3	
			Driller:	•	Gregg	_		Date Drilled:		10/28/2005	Location Map		
		ta I	Drilling M	ethod:	HSA			Hole Diameter:		r: 10 inch			
		la	Sampling	Method	CA Mod	Split-Shoe		Hole Denth		62.5 feet	Please se	e site map	
Env	ironme	ntal	Casing T	voe:	Sched, 40 PVC			Wall Dismeter		r: 4 inch			
Cone	ultante		Slot Size	/ <b>/</b> ~	0.02			Well Death:		62 feet			
00113			Gravel Pa	ack:	#3			Casing Stickup:		ip: n/a			
				Elevation	Norti			ning	3	Easting			
									-	_			
Well Co	mpletion			Ð	50	et)	Sa	mole	<b>m</b>				
	_	Static	tent	eadi m)	ratic 's/6'	(fec	<u>ک</u>	=	Typ	1.17		DESCRIPTION	
Sin CK		Level	Aois Con	ъ, g	anet olow	enet			I	LITHOLOGY / DESCRIPTION			
ä	۰ د <del>ر</del>			E.	a e	ð	Rec	TT.	0)				
					<b></b>	<b>-</b>			AF	3 to 4 inch asphalt wi	th approx. 2	inches of base rock	
								,					
						1							
						2						· · · · · · · · · · · · · · · · · · ·	
						2			CL	Sandy Lean CLAY: dark brown, 5-15% gravels up to			
					s e	2				~3mm b-axis diameter	er, 30-40%	medium grained sand, low	
					1ge 1ge	3				to moderate plasticity	, some sma	all roots	
					kni	A							
					air	-+							
					ڵٵۨ	5							
						5				Sandy Lean CLAY:	same as ab	ove, darker brown to	
						6				black, 30-40%mediur	m grained s	and	
			1			<u>0</u>				Encountered 2-3" asp	ohalt layer		
										· · ·			
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						0			ļ				
					6			E SAN				-	
			damp	68.6	13	9			CL	Lean CLAY: medium	n grey, ~10 <sup>o</sup>	% fine grained sand, low	
					15	10				plasticity, very stiff			
nt						10							
2						41							
						''							
			• • •			12							
						12	•						
						13				· · · ·			
				_	4	14							
		Į	damp	60.4	8	· · ·				(same as abov	ve, trace fin	e grained sand, moderate	
					11	15		i wali		plastictiy, stiff	)		
								<u> </u>	1	· · · · · · · · · · · · · · · · · · ·			
	· · · · ·					16	<u> </u>	<u> </u>	4				
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						17		<u>  </u>	1	·			
		4				-	<b> </b>	╂───	11			••••	
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	-	ł			-					· · · · · · · · · · · · · · · · · · ·			
		4	dome	1 205		19				Sandy Loan CLAV	light grow w	ith medium arev mottling	
	-	1	uamp	1,300	11	-				30-35% fine orained	sand mode	erate plasticity stiff	
		1			''	20				50-55 % mile granieu	sanu, muu	crace preservicy, ann	
						-			1				
						21	┼		-				
		ł	ļ				1	+	1				
			1			22	┼──		1				
		<u>I</u>	<u> </u>	I		<u> </u>	L		I				
		Project N	D:	SJ37-90	H-1	Client	i:	Shell Oil Products	JS	Well No: S-5b			
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Del Environm Consultant	ta ental s, Inc.	Logged B Driller: Drilling M Sampling Casing Ty Slot Size:	y: ethod: Method: ype:	Heather Gregg HSA CA Mod. Sched. 4 0.02	Buckingham Split-Shoe 0 PVC	n Locat Date Hole Hole Well Well	ion: Drilled: Diameter Depth: Diameter Depth:	3790 Hopyard Road 10/28/2005 10 inch 62.5 feet 4 inch 62 feet	Location Map	Page 2 or 3			
		Glaver Pa	Elevation	#3	1	Northing	ig Slicku	Easting					
	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Recovery S Interval aldues	Soil Type	LIT	HOLOGY	/ DESCRIPTION			
		damp	10.3	8 8 9	23		CL	Lean CLAY: dark gre fine grained sands, m	ey with som noderate pla	ie black mottling, ~10% asticity, stiff			
		wet	0.3 0.3	8 13 13	20 27 28 			(same as abov	/e, no dark	grey mottling, very stiff)			
		damp moist	0.1	6 8 9	32 33 34 35 36		CL	Sandy Lean CLAY: grained sand, moder	greyish bro ate to high	own, 30-35% fine to medium plasticity, stiff			
		moist	0.1	7 8 10	37 — 38 — 39 — 40 — 41 — 42 — 42 —		CL	Lean CLAY: mediun	n brown, m	edium to high plasticity, stiff			
	-	moist		5 5	43								

			Project I	No:	SJ37-90	)H <b>-1</b>	¢	lien	t:	Shell Oil Products	US	Well No: S-5b
			Logged	By:	Heather	Buckingh	am L	ocat	ion:	3790 Hopyard Ro	ad	Page 3 of 3
		to	Driller:		Gregg		D	Date	Drilled:	10/28/2005	Location Map	•
		la	Samplin	vietnoo: a Method:		Colif.Chr	. Н	iole I	Diamete Doorth	er: 10 inch	Ploace co	a cita man
Er	vironm	ental	Casing 1	Type:	Sched.	40 PVC	νe ια ν	Vell (	Diamete	er: 4 inch	Fiedse 30	e site indp
Cor	nsultant	ts, Inc.	Slot Size	9:	0.02		v	Vell I	Depth:	62 feet		
1			Gravel F	Pack:	#3		C	Casin	g Stick	up: n/a		
				Elevation			Northin	ng		Easting		
Cor	Well		e t	Bu	5 🕤	÷	Sam	ole	 م			
۲.	ក្ន	Water	istun nten	Read pm)	etrati vs/6	le) L	₹.	<del>9</del>	Typ		THOLOGY	DESCRIPTION
Back	Casil	Level	δ	10 9	Pene (blo	Dept	PCOV	herv	Soil			
			moist	0.1	5		2 2		CI	Lean CLAY same a	s above	·
					6				02		5 40070	······
						45				· · · · · · · · · · · · · · · · · · ·		
						46 —						
						47						
						4/						
						48	+					
					7	40				······································		
	·		moist	0.1	11	49			CL	Lean CLAY with Sa	nd: light bro	wn mottled with light grey,
Srout					13	50 —				15-25% fine grained	sand, mode	rate plasticity, stiff
0						51 —	-					
										· · · · · · · · · · · · · · · · · · ·	······	
		1					┝╼╋╸					
											· · · · ·	
					40 50 for 5"	54 —			SC	Fine Grained SAND	with Clay	medium brown 15-25%
			damp			55				clay, very dense	min only	110010111 010111, 10-2070
ite		4 A.		0.3	27							
sutor					54 16	56			SP	Poorly Graded Med	lum Graine	d SAND: dark tan
ă					16	57				medium dense		a onio, dain tan,
			wet		40	. –			-			
					50 for 5"	58 —			SW	medium dense	tan and me	edium brown, ~10% fines,
						59						
Sanc							┠──┠-	_		No recovery (s	sluff)	
						60	<u>├</u> <u> </u> -		1. 200	No recovery (s	sluff)	
8						61						
			wet						ĢW	Well Graded GRAVE	EL with sar	d: grey, 1/4 to 1.5" gravel,
			, I			62		ni politika L		Boring terminated at	62.5 feet be	elow grade
						64	├					
	· · · · ·					65						
						66						
								_				

'_₩c	ò	dwa	ard	-Cly	de Co	ons	ultar	πs		9				PRO-	ECT NAME	Œ	тен	MAN		NO. <u>88</u>	2001 1.	<u>A</u>
MOH	atto	HUNK	a we	LL LOO	CATION		ا عما	owne and	Hopper	( P <b>are</b>					ELEVATE		DATUM					
DRL	LN	<b>G A</b> C	ENC.	ar 👘	Bary L	and Dri	ing Ca			XPM_L_EA	t	Kun			DATE STA	URTED ISHED	X	0/4/88				
DAS	LN	G EC	XJP1	AENT		Тыска	naurmed (	2Æ-75							COMPLET DEPTH	NON	35		SAMPLER	Lice	hec omas	
DRIL	LH	g me	THO	D	e Hu		ne.gers		D	RILL BI	π	·,			NO. OF	DIST.	7	1	UNDIST.			
SOT	AN	יד ס	PE O	F CAS	ING .	3	₽₩СТЪ		F	ROM	35	ŤO	0	FT,	WATER	FIRST		i	COMPL 121	24	HPIS.	
TYPE	OF	PER	FOR,	ATION	C	10207 \$	301		я	ROM	35	та	το	FT.	LOOGED	Y:		İ	CHECKET	BY:		
5-27E	ANC	ואד מ	PE O	F PAC	<	21	260000	er Send	P	RON	35	TO	8	FT.		. Sevens			1	M 80nou	<b>6</b> 74	
TTE	τo	ж	N	0, 1	Benor				F		8	то	6.5	FT.								
	<b></b>		K	0.2	Coroe	<del>70</del>			Fi	ROM	65	то	٥	FT,								
4) ()		Services	Blow							MATE		DESCR	RIPTIO	N						USCS I	¥	line in
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5 -	1			S S	LTY SA sily si	ND and w	त्म इच्च	ne crave	al <b>bos</b> a	2.000	M SOTU	ed dry					= 0.5 ppm	n m min	¥			
		$\prod_{i=1}^{n}$	-					5 -			., <u></u>					, . <b>.</b> ,,				]a	E	
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<sub>ສ</sub> ]	5				matthe	/ harm -	م الم			<b>-</b> -						-LNH	4. <del></del>			1a		
		Ť			stil, pla	50,0	n, ba lamp	x, gray (	cay wi	nccca	ISONA	graved	• .			No Hyc		n odor	•			
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30 - 6	5		Ξ.		dark gr	ay da	iy, ven	stiff, pla	assic											Jα		
			<b>-</b> ∤ ·	GA	NVEL layer cc	arse	gravel	and son	пе сра	rse sar	ದ, ರಾ	only sor	ted, we	ət	,	-Ne Hyd	s	1 øder		GP		
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LOG OF MONITORING WELL NO. S-6 SHEET 1 OF 2

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			PROJECT NAME	GETTLERRYAN	NO. 882	20071 1A
Depth	Samples	R C	MATERIAL DESCRIPTION		LIBCS	Commune Kor
35 -	7	4 5	CLAY bank gray day with trace gravel, soft, plastic, wet	HNU=15ppm No Hydrocarton odor	_ a	
			Total Depth = 35.5 feet	· · · · ·	]	
-			* = Lab Sample		4	
40 -						
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45						
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			LOG OF MONITORING WEL	INO SE ENEET 2 OF 2	<u> </u>	

Ŵ	bòd	wa	rd	Clyde Consultants	9		. *		PRO	JECT NAME	GET	איפעוד	YAN	NK	o. <u>88</u> 2	0011A
мо	NITOF	RING	WE	L LOCATION Los Poins and Ho	yerd, Pleaser	en C				ELEVATIO		ATUM				
DR	LLING	) AG	ENC	r BeyLand Dilling Ca.	DRUER		Kun			DATE STA	RTED SHED	10	<b>34/68</b>			
DAI	LLING	EQ	JPN	ENT Truckmourned CME-75				-		COMPLET DEPTH	юN	36		SAMPLER	Mod Calit	lac orna
DRI	LUNG	HE	но	5 Follow starm eugers	DRILL BI	Ţ				NO, OF	DIST.	7 '		UNDIST.	·	
SCZ	E AND	TYP	EO	CASING JPVC Threaded	FROM	35,	то	0	<u>بالجبر</u>	WATER	FIRST			COMPL. 158	24 1	HRS.
TYP	EOFF	PERF	OFU	TION 0.027 Sot	FROM	35	TO	10	FT.	LOGGED B	Y:			CHECKED B	Y:	
S07	E ÁND	TYP	2 01	PACK 2712 Lonester Send		35	TO	8	FT.		JONGS		!		0.00	
1	PEOF	F	N	0.1 Bencrive	FROM	8	то	6.5	F1,							
			NK	0.2 Concrete	FROM	65	то	٥	FT.			•				
Depth (1eet)	Samplee		E o		MATE	FIAL	DESCF	RIPTX	Ņ						LISCS	Wel Construc- tion
				Asphal and Gravel Base										·····	<u> </u>	
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	-														-	티티
5	]1	e Se se	8	SAND							HNU=	0ppm		- -		
		i de de		Sily Sarki with Sorthe Gravel, I	use, pour	y son	ec, ary				1001191			· -		
, -	-			•										-		00
-				(CLAY	• • • .									-		
10.	2		202	dark gray clay with some gray	el, still, pla	istic, c	amp				HNU=				œ	
-	┤╻													-		
-	1													-		
-		ł		- (CLAYFY SAND										• • • • •	1	
- 15	3-			clayey sand with title gravel, I	cose, poor	iy sor	ted, mo	ist			HNU= NoHx	0 ppm irocarbo	xicó	× ••••	PT	
	┥╻Ӷ			dark gray ciay with black mot	Ing, trace :	sand	and gra	vel,							la 1	
				medium stiff, low plasticity	·	-								-		
			_	PEAT	Ð, e		•					_			]	
- 20 -				peat with trace clay, root mate	nial, moist						No Hys	0ppm irocarioc	nœ	x -		III
-	]			dark gray day, trace roots an	- d root impr	essio	ns, sitt,	plast	c					-	1	
	] •	•		· • -										-		III
	i.	-		dade arrest alast							M N I I			-		
25 -				Uain gray Ciay					<u> </u>		No Hyc	frocarbo	n các	x -	1	
	]			_				-	-							
-														-		
-				mottled brown, black, grav cla	v with cocc	siona	d orave	Ł			HNU=	Oppm		-		
30 -		-7		moist to wet, soft, with occasio	nal streaks	sofwi	hie	7			No Hyc	rocarbo	nœ	< -		
				¢										-	]	
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									•					-	{	
<u> </u>															L	Page Proved and

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ION	TOR	ING	WELL	LOCATION 3790 Hopyard	Rd, Pleasan	ion, CA	(5-8	D <sup>*</sup> .		ELEVATION AND	DATUM 100.	.00° site da	tum	_	
RILL	ING	AG	ENCY	Baylands	ORILLE	EA K.	Voss			DATE STARTED	2/24/89				
RILL	ING	EOL	JIPME	NT Truck-mounted CME-75						COMPLETION 3	5'	SAMPLE	R Me	difie	0
AILL	ING	MEI	гнос	8° hollow stem auger	DRILL	Brr C	ME Ca	Inbide	~~ ~ ~	NO. OF DIST.		UNDIST.		un orn	
IZE A	ND	TYP	EOF	CASING 3" PVC	FROM	34.5	TO	0.5	FT	WATER FIRST	16' Approx.	COMPL.	2	4 HR	is.
YPE	OF P	PER	FORAT	TION 020 sinted		34,5		9,5	<u>т</u> я	LEYEL :		CHECKE	0.87		
ZE A	ND .	TYP	EOFS	PACK 8 X 16	FROM	15.0		7.5	FT				001,		
			NO.	1 Bentonite	FROM	7.5		6.5	FT	C. Parten			M. Bo	nkow	ski
SE	AL		NO.	2 Grout	FROM	6.5	 TO	surface	 ЕТ.						
	\$	Ţ				<del>.</del>				<u> </u>		<u></u>			 ن
(jed)	ampli		Blow		MAT	ERIAL	DES	SCRIPT	TION				000		Well Detroi
	N 1		<u> </u>	<b>An</b> A										1	8
				3 Asphail: base, gray bri	own SAN[		Y wi	ih SAN	0				7.	, [	
					-									ίς Γ	1
4	k	5	0	SILTY CLAY									]	ł	3
-	1	ÌΡ Α	isi JSN	grayish brown, damp, m	edium firn	n, some	e root	s					- 0	ı.	
-													-		1
-													-		2
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	2 3			SILTY CLAY	ili una di cum						UNI. 0				Ž=
-	ſ			gray orown monied, met								ppm <sup>,</sup>			涯
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]:	3	-		SILTY CLAY									1	107.2	Æ
	<b>م</b> تا			92 90046							HNu = 0	ppm			Ē
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۲.		þ		SILTY CLAY											Æ
٦.			7	gray and brown mottling,	orange sp	peckles	s (loo	k like b	rick),	roots,	HNu ≖ 0	ppm			Ē
				oamp, inediom mite									4	10.00	
_		ļ											1		
4			-	SILTY CLAY											E
-  *	5	5		gray and brown mottling,	damp, me	dium 1	lirm				HNu = 0	) ppm		ι	
1													_	100	
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- 6	(1, 2, 1)	4	7	SILTY CLAY							HNU = 0	pom			E
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$\dashv$			ľ										4		Æ
-	Ц		4	SILTY CLAY									-		Æ
77			4 )	gray and brown mottling, c	amp to m	oist, m	ediur	n firm					4_		Æ

## Woodward-Clyde Consultants

GETTLER - RYAN PROJECT NAME

					<u> </u>	·····	PRO	JECT N	AME .	GETTLER - A	YAN	NO. <u>882</u>	0011	A/0118
мо	NITOP	RING V	ELL	LOCATION 3790 Hopyerd Re	d, Pleasanton	CA	(5-9)	. •		ELEVATION AND	DATUM 101.	24° site datum	1	
ORI		AGE	VCY	Baylands	ORILL	ER <sup>x</sup>	. Voss			DATE STARTED	2/24789 2/24/89			
DRI	LLING		PMEN	Truck-mounted CME-75						COMPLETION	35.0	SAMPLER	Can	iornia lifed
DRI	LLING	METH	100	8" Hollow-stem auger	DRILL	8/11	CME C	arbioe	······	NO. OF DIST.		UNDIST.	7	
SIZE	AND	TYPE	OFC	ASING 3" PVC	FROM	34.5	то	0.5	FT.	WATER FIRS		COMPL.	24	HRS.
TYP	EOF	PERFO	TAR	ION 020 slotted	FROM	34.5	70	. 9.5		LOCGED BY		CHECKED		
SIZE	AND	TYPE	OF P	ACK 8 X 16	FROM	35	то	7.5				GIEGRED		
TY	PEOF		NO. 1	Bentonite pellets	FROM	7.5	та	6.5	FT	C. Parten		м. в	onkaw	ski
s	EAL		NO. 2	Grout	FROM	6.5		suriace						
			1						<u> </u>				1	
(ieef)	Inple	Slows			M	TERIA		SCRIPT	ION				scs	Vell Istruc
<u> </u>	vi		<u> </u>	· · · · · · · · · · · · · · · · · · ·							·		5	> 5 2
-	-	ł		Asphail (3 Thick), base, silly clay	- 1411	·			•	· · · · · · · · · · · · · · · · · · ·			1	
_												-		
-		 150										· -	2	
5 -	1	Pusi		SILTY CLAY with GRAVE	L.						HNU = 0 n	nm		
	┤▖Ӷ	250		sandy in upper ponion	m, camp. of sample	gravel	10 1/3	2"			· · · · · · · · · · · · · · · · · · ·			
			-											XX
													ļ	
10 -	2	-		SILTY CLAY IC SANDY C	AY		•						ļ	
		7	1	arey promitio âreenisti	orown, me	aium i	irm, c	lamp			HNU ≈ 0 p	om	CL	
· · · ·		· ·										. –		
		2		SILTY CLAY								-		
15 -	3	2		gray brown with black m	ottling, so	ft, mois	st, so:	me cha	rcoal		$HNu = 0 p_{i}$	pm	: CL	
	ł													
4				SILTY CLAY										
20 –	4			gray brown mottling, so	ft, brick fra	Igment	s and	rools					CL	
-	Π										HNu = 0 p	pm _		
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25	s			SILTY CLAY										
				gray prown mottling, m	edium firm	i, damp	כ				HNu = 0 pr	pm		
4														
-		Ļ								· .			:	
				SANDY CLAY to CLAY	EY SAND								CL-	
0 – '				silty clay at bottom of s	ampler								sc	
J		ſ												
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		6		gray brown mottled, m	edium firm	, dam	2				r = v p p		CI	
5		÷	··			•					-	· -	~~	

Total Depth = 35.0 feet

			Project N	0:	SJ37-90	H-1		Clien	t:	Shell Oil Products t	JS	Well No: S-9b				
			Logged B	By:	Heather	Buckingha	m	Locat	ion:	3730 Hopyard Road	rd Road Page 1 of 3					
-	. 1	4	Driller:		Gregg			Date	Drilled:	10/26/2005	Location Map					
	)01.	ta	Drilling M	lethod:	HSA			Hole	Diamete	r: 10 inch						
		LCL.	Sampling	Method:	CA Mod.	Split Shoe	<b>.</b>	Hole	Depth:	61 feet	Please se	e site map				
Ēr	vironme	ental	Casing T	vde:	Sch. 40	PVC		Well	Diamete	r: 4 inch						
Col	sultants	s. Inc.	Slot Size:	,	0.02			Well	Depth:	61 feet						
•••		,	Gravel Pa	ack:	#3			Casir	na Sticku	ip: NA						
				Elevation			Nort	hing		Easting						
Well (	Completion			bu	50	÷.	Sa	mple	6							
=	~	Static	stun	ead	rati /s/6	(fe	2	7	Δ			DESCRIPTION				
ckfi	ising	Level	Con	й d	enet	epth	No.	erva			HOLOGII	DESCRIPTION				
83	ບິ			lid	4 2	ă	Red	Int	0							
				<i>, .</i> ,,	<b>↑</b>				AF	3 to 4 inch asphalt wit	th approx. 2	inches of base rock				
						1										
			· ·													
						2				Lean CLAY: dark gre	yish brown	trace coarse grained				
					σ	2		a dente	ͺ CL∘	sand, gravels up to ~	5mm b-axis	diameter, medium				
					~ କୁ	3				plasticity						
					pa e	5			sc`	Clayey SAND: dark t	prown, fine	to medium grained sand,				
					a U					20-30% clay						
					and	4			CL`	Lean CLAY: dark bro	wn, 5-15%	gravels up to ~5mm				
				0.1	ٽ ٻ				•••	b-axis diameter, med	ium plastici	ty				
						0										
							1		sc	Clayey SAND: brown	n to yellowish brown, fine to medium % clay					
						0	1			grained sand, 15-25%	5% clay					
							1				5% clay					
						/	1	1	h.,							
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						8	1	1								
					5											
			sliaht	0.1	8	9			CL	Lean CLAY with Sau	nd: dark ore	ev. sand pockets ~0.5cm				
			damp		12					with fine to medium of	arained san	d (10-15%), low to				
Et i						10				moderate plasticity. 2	2-3" clavev	sand laver within fine				
<u></u>						-		1	1	grained sand, stiff	¥ *					
0						11			1	<u> </u>						
						-			I	,						
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			! <b> </b>		6			HUHHH			<u></u>					
			damo	0.1	8	14			CL	Lean CLAY: dark ore	en with bro	wn mottling, trace fine				
					9	<u></u>				grained sand. mediur	n to hiah pl	asticity, stiff				
			.		1	15	and the		1							
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				~ 4	0	19				/	(0. 0105	mattling ~100/ fine ensined				
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						20				sand, medium	to nign pla	SIICITY)				
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						22-	+	+	{			· · · · · · · · · · · · · · · · · · ·				
			L	L	1	L	<b>I</b>	1	<u> </u>							

Licgond by:         Hereiner Studingham         Location:         3720 Hoyand Totat         Jegg 2 d 3           Differ         Grage         Dec Ontexter:         102622005         prestration         Pre				Project N	0:	SJ37-90	H-1		Client	. ·	Shell Oil Products U	JS	Well No: S-9b
Delta         Design Markets         Group of the construction o				Logged E	By:	Heather	Buckingha	m	Locat	ion:	3730 Hopyard Road	t	Page 2 of 3
Decise         Bio         Proclamente         10 mb           Simple Jumos         CAM dd Spil Sho         Hoe Durwler         10 mb           Consultants, Inc.         Came Jive         Came Jive         Statistic           Simple Jumos         Came Jive         Statistic         Statistic         Statistic           Simple Jumos         Statistic         Statistic         Statistic         Statistic         Statistic           Simple Jumos         Statistic         <			4	Driller:	•	Greag	Ū		Date	Drilled:	10/26/2005	Location Map	· · · · · · · · · · · · · · · · · · ·
Environmental Consultants, Inc.         State Environmental Set Base (Consultants, Inc.         State Environmental Set Base (Consultants, Inc.         Please see site map         Please see site map           Vel Completion Base (Consultants, Inc.         State (Consultants, Inc.         State (Consultants, Inc.         State (Consultants, Inc.         State (Consultants, Inc.         Please see site map         Please see site map           Vel Completion Base (Consultants, Inc.         State (Consultants, Inc.		'ום(	ta	Drilling M	lethod:	HSA			Hole	Diamete	r 10 inch		
Environmental Consultants, Inc.         Sette OP/C Bit State Craw Value Stat			la	Sampling	Method	CA Mod	Solit Shoe		Hole	Denth:	61 feet	Please se	e site man
Consultants, Inc.       Bat Size Consultants, Inc.       Set Size Size Consultants, Inc.       Set Size Size Consultants, Inc.       Set Size Size Size Size Size Size Size Size	En	vironm	ontol	Caeina T	uno:	Sch 401			Molt	Diomete	r dinch		e one map
Consultante, III.         Discussion         Print Legal         Direst         Notify           Consultante, III.         Direst Pack         R3         Direst Pack         Direst Pack         Direst Pack           Vide Completion         Static         Static <td>Con</td> <td>oulfont</td> <td></td> <td>Casing 1</td> <td>, ,</td> <td>0.02</td> <td>F V G</td> <td></td> <td>Molt</td> <td>Death</td> <td>61 foot</td> <td></td> <td></td>	Con	oulfont		Casing 1	, ,	0.02	F V G		Molt	Death	61 foot		
Viet Completion         Users         Nothing Users         Easing           Viet Completion         Users         g g g g g g g g g g g g g g g g g g g	001	iðuntarnt:	s, mc.	Gravel P:	ack:	#3			Casir	a Sticku	In NA		
Veter Competition       Stratic water       Weter Water       Stratic wate					Elevation	1152		Nort	hing		Easting		
Static       Static	Well C	ompletion				5	с С	ic.					
damp       0.9       8       23       Lean CLAY (continued)         damp       0.9       8       24       Lean CLAY with Sand: dark brown with red brown motiling (end at 15) dark grey with light grey sand pockets. 10-20% fine grained sand, moderate plasticity, very stiff         damp       0.5       9       26       27       28         27       28       27       28       27       28         28       29       20       Ct.       Sandy Lean CLAY: modum grey, 30-35% fine grained sand, moderate plasticity, very stiff         30       31       32       33       33       33         33       34       38       38       38       38         4amp       0.2       16       39       38       38       38         4amp       0.2       16       39       38       38       38       38         4amp       0.2       16       40       38	Backfill	Casing	Static Water Level	Moisture Content	PID Readir (ppm)	Penetratio (blows/6"	Depth (fee	ecovery o	Interval a	Soil Type	LIT	HOLOGY /	DESCRIPTION
damp       0.9       6       23       1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td></td> <td></td> <td>Lean CLAY (continue</td> <td>ed)</td> <td></td>								<u> </u>			Lean CLAY (continue	ed)	
damp       0.9       8       24       24       24       25       26       26       27       28       26       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       28       28       27       28       28       28       28       27       28       28       28       28       28       27       28       28       27       28       28       27       28       27       28       27       28       27       28       27       28       <													
damp       0.9       6       24       Lean CLAY with Sand: dark brown with red brown motiling (and at 15) dark grey with light grey sand pockets, 10-20% fine grained sand, moderate plasticity, very stiff         damp       0.5       11       29       CL       Sandy Lean CLAY: medium grey, 30-35% fine grained sand, moderate plasticity, very stiff         damp       0.5       11       29       CL       Sandy Lean CLAY: medium grey, 30-35% fine grained sand, moderate plasticity, very stiff         damp       0.3       9       34       34       34       34         32       33       36       36       36       36       36         34       38       36       36       36       36       36       36         34       38       36							23—						
damp       0.9       8       24       CL       Lean CLAY with Sand: dark brown with red brown         25       26       26       26       26       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       28       27       28       27       28       28       27       28       28       27       28       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       27       28       28       29       20       CL       Sandy Lean CLAY: medium grey, 30-35% fine grained sand, moderate plasticity, very stiff       31       33       33       33       33       36			•			6	-						
Image: state of the state				damp	0.9	8	24			CL	Lean CLAY with Sar	nd: dark bro	own with red brown
damp       0.5       9 11 28       29       20						9				-	mottling (end at 15') o	lark grev w	ith light grey sand
damp       0.5       9       26       27       28         28       29       29       29       29       29         30       30       30       30       30       30         damp       0.5       12       30       30       30         damp       0.3       7       34       33       33         damp       0.3       7       34       33       33         33       36       36       36       36       36         38       39       38       39       38       36       36         41       42       41       42       41       42       41       42         41       44 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>25</td><td></td><td></td><td></td><td>pockets, 10-20% fine</td><td>grained sa</td><td>nd. moderate plasticity.</td></td<>							25				pockets, 10-20% fine	grained sa	nd. moderate plasticity.
damp       0.5       9       11       28       27       28         28       29       28       29       28       29       28         30       30       30       31       32       33       34       32         31       32       33       33       34       32       33       34       32       33       34       32       33       34       32       33       34       32       33       34       32       33       34       33       34       33       34       34       34       35       36									· · · ·		verv stiff	<b>J</b>	
damp       0.5       9       27       28         28       29       21       20       21         30       30       31       31       31         31       32       33       33       33         32       33       33       33       33         34       35       36       36       36         38       38       38       33       36         38       39       36       36       36         40       41       42       43       41         41       42       43       44       44			ŝ				26						
damp       0.5       9 11 12       29 28 29 30       CL       Sandy Lean CLAY: medium grey, 30-35% fine grained sand, moderate plasticity, very stiff         damp       0.3       7 9 13       34       34       34         36       37       38       38       36         38       38       36       37       38         damp       0.2       16 16       15 40       16       39         damp       11       44       44       44       44													
damp       0.5       9       12       28							27—			· · · · ·			
damp       0.5       9       11       29       CL       Sandy Lean CLAY: medium grey, 30-35% fine grained         damp       0.5       9       11       12       30       sand, moderate plasticity, very stiff         damp       0.3       9       13       32       sand, moderate plasticity, very stiff         damp       0.3       9       13       35       sand, moderate plasticity, very stiff         damp       0.3       9       13       36       sand, moderate plasticity, very stiff         damp       0.2       18       39       36       sand, moderate plasticity, very stiff         damp       0.2       16       30       sand, moderate plasticity, very stiff       sand, moderate plasticity, very stiff         damp       0.2       16       39       sand, moderate plasticity, very stiff       sand, moderate plasticity, very stiff         damp       0.2       16       39       sand, moderate plasticity, very stiff       sand, moderate plasticity, very stiff         damp       0.2       16       39       sand, moderate plasticity, very stiff       sand, moderate plasticity, very stiff         damp       0.2       16       39       sand, moderate plasticity, very stiff       sand, moderate plasticity, very stiff       s							_						
							28						
Image: Second system       damp       0.5       11       12       30       Sandy Lean CLAY: medium grey, 30-35% fine grained         Sandy Lean CLAY: medium grey, 30-35% fine grained       31       32       33       34       33         damp       0.3       9       34       34       33       34       33         damp       0.3       9       13       35       36       36       36         damp       0.2       15       36       36       36       36       36         damp       0.2       15       16       39       36       36       36       36         damp       0.2       16       39       36		·				9	_						
Image: Second state plasticity       12       30       30       30       30       30       30       30       30       30       30       31       31       32       33       34       33       34       33       35       33       36       37       36 <td></td> <td></td> <td></td> <td>damp</td> <td>0.5</td> <td>11</td> <td>29</td> <td>- Satz</td> <td></td> <td>CL</td> <td>Sandy Lean CLAY: r</td> <td>medium are</td> <td>ev. 30-35% fine grained</td>				damp	0.5	11	29	- Satz		CL	Sandy Lean CLAY: r	medium are	ev. 30-35% fine grained
Joint Control (1)       1       30       1				P	0.0	12				02	sand moderate plast	icity, verv s	tiff
Image: book state							30	annar.				·•••••	
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B       32       33         33       33       33         33       33       33         33       33       33         34       34       33         35       36       36         38       38       38         38       39       38         40       38       39         41       42       43         43       44       44						!	31	-			·	·	
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damp 0.3 9 33 - 35 - 36 - 36 - 37 - 38 - 37 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 38 - 39 - 39						7	-				· · · · · · · · · · · · · · · · · · ·		
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· · · · ·		Project N	0:	SJ37-90	H-1	Clien	t:	Shell Oil Products	US	Well No: S-9b
		Logged B	v:	Heather	Buckingha	m Loca	tion:	3730 Hopvard Ro	ad	Page 3 of 3
		Driller	<b>.</b>	Gread		Date	Drilled:	10/26/2005	Location Map	
	12	Drilling M	ethod <sup>.</sup>	HSA		Hole	Diamete	r 10 inch		
		Sampling	Method:	CA Mod	Solit Shoe	a Hole	Depth:	61 feet	Please se	ee site map
Environme	ental	Casing T	vpe:	Sch. 40	PVC	Well	Diamete	r: 4 inch		
Consultants	s Inc.	Slot Size:		0.02	• • •	Well	Depth:	61 feet		
, concentration	,	Gravel Pa	ack:	#3		Casi	ng Sticku	ip: NA		
			Elevation			Northing	-	Easting		
			•							· · · · · · · · · · · · · · · · · · ·
Well			ð	50	କ୍ଳ	Sample	ς <sub>σ</sub> .	•		
	Static	ten	m) ead	s/6	ej)	2 -	2	11		/ DESCRIPTION
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Ca Ba			립	<u>م</u> ج	ď	Tree Let	•/			
		damp	0.1	9			CL	Sandy Lean CLAY (	continued)	· · · · · · · · · · · · · · · · · · ·
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		wet	0.2	7	- ·					E 20% fine grained cond
· · · · · · · · · · · · · · · · · · ·				10	51		CL	Lean CLAY with Sa	ind: grey, i	5-20% line grained sand,
		damm			_			moderate plasticity,	very sun	
		damp			52	ROKEN TOKINO				
Ū –	ŕ			R R	-					······································
				9	53			(same as abo	ve. arev m	ottling)
				12						
		damp		18	54			······································		
				7				· ·		
ento			0.1	11	00					
<u>ā</u> —		damp		18	50		SC	<b>Poorly Graded Find</b>	e Grained	SAND with Clay: grey,
				5	50			80-85% fine grained	I sand, 15-2	20% fines, medium dense
		wet		17	57					
			-	11						
				15	58			Poorly Graded Med	dium to Co	barse Grained SAND with
P				25	<b>–</b>		SP	Gravel: grey, 10-15	% gravel, tr	race fine grained sand, dense
Zai	-	wet		33	59					L Osend with Oleve same
				1	-			Poorly Graded Fin	ed Grained	Sand with Clay. Same
	ł		0.8	17	60		50	as above, dense	dium to Co	area Grained SAND with
	-	wot		10			SD	Gravel same as at		lense
		WCL		21	61	ning succ		Gidren Same do da		
					-	+ $+$	-	· · ·	······	
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		Project N	0:	SJ37-90	H-1		Client	t:	Shell Oil Products U	JS	Well No: S-9c		
		Logged B	By:	Heather	Buckingha	n	Locat	ion:	3730 Hopyard Road	<b>j</b> .	Page 1 of 4		
<b>D</b> - 10		Driller:		Gregg	_		Date	Drilled:	10/25/2005	Location Map	······································		
	2	Drilling M	lethod:	HSA			Hole	Diamete	r: 10 inch				
	u	Sampling	Method:	CA Mod	Split Shoe		Hole	Depth:	79 feet	Please se	e site map		
Environmen	tat	Casino T	vne:	Sch. 401	PVC		Well	Diamete	r 4 inch				
Consultante	inc	Slot Size	,	0.02			Well	Denth <sup>.</sup>	70 feet				
eonoundinto,		Gravel Pa	ack:	#3			Casir	n Stick	In NA				
			Elevation			Norti	nina	19 0110110	Easting				
Vell Completion V C Base L C Base L C Base V L	Static Vater Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Recovery S	Interval aldu	Soil Type	LIT	HOLOGY	DESCRIPTION		
								AF	3 to 4 inch asphalt wit	th approx. 2	2 inches of base rock		
					1				· · · · · · · · · · · · · · · · · · ·	·			
					2				Lean CLAY: dark gre	yish brown	, trace coarse grained		
		·		ס				、 CL	sand, gravels up to ~	5mm b-axis	s diameter, medium		
				1 & ere	3—				plasticity				
				ng life(				୍ଟେ	Clayey SAND: dark b	prown, fine	to medium grained sand,		
				d a	4				20-30% clay	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
				air	· _			CL	Lean CLAY: dark bro	wn, 5-15%	gravels up to ~5mm		
			0.1		5	L		1	b-axis diameter, med	ium plastici	ity		
					· _					····			
					6—			SC	Clayey SAND: brown	to yellowis	sh brown, fine to medium		
									grained sand, 15-25%	-25% clay			
				+	7—								
					· _								
					8					·			
					Ŭ _	3/443/4473/44							
				5	9					· · · · · · · · · · · · · · · · · · ·			
		slight	0.1	8				CL	Lean CLAY with Sar	nd: dark gre	ey, sand pockets ~0.5cm		
		damp		12	10				with fine to medium g	rained san	d (10-15%), low to		
					_		·		moderate plasticity, 2	2-3" clayey	sand layer within fine		
5					11				grained sand, stiff				
							<u> </u>				· · · · · · · · · · · · · · · · · · ·		
					12			***	· · · · · · · · · · · · · · · · · · ·				
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					_	Superior and	al faire and a second		a a construction of the second second second second second second second second second second second second se				
				6	14								
		damp	0.1	8	<u> </u>			CL	Lean CLAY: dark gre	en with bro	own mottling, trace fine		
				9	15		15000		grained sand, mediur	n to high pl	asticity, stiff		
					_						···		
					16								
					17—		<b> </b>						
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			04	7	19				(anna		mottling		
			0.1		-				(same as abov	to high -l-	notuing, ~10% fine grained		
				(	20	<b>DA INI</b>			sano, medium	to nign pia	sucity)		
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	<u>.</u> .		Project N	0:	SJ37-90	H-1	Client	t;	Shell Oil Products	US	Well No: S-9c
			Logged E	Sy:	Heather	Buckinghan	n Locat	ion:	3730 Hopyard Road	d	Page 2 of 4
	. I	4	Driller:	•	Gregg	-	Date	Drilled:	10/25/2005	Location Map	
	<b> </b>	ta	Drilling N	lethod:	HŞA		Hole	Diamete	r: 10 inch		
		<i>i</i> u	Sampling	Method:	CA Mod.	Split Shoe	Hole	Depth:	79 feet	Please se	e site map
Env	/ironmo	ental	Casing T	ype:	Sch. 40	PVC	Weil	Diamete	r: 4 inch		
Cons	sultant	s, Inc.	Slot Size	:	0.02		Weli	Depth:	79 feet		
		•	Gravel Pa	ack:	#3		Casir	ng Sticku	ip: NA		
				Elevation			Northing		Easting		
	moletion			50	Γ_				<u> </u>		
VYGA OC	Micron	Static	ent	adin n)	atior s/6")	(feet	Sample ≻ _	ype			
ckfill	sing	VVater	Aois Cont	D Re (ppi	iow.	bt h	ovei erva	Llio		HULUGI	DESCRIPTION
Ba	Ca		20	ЫЧ	4 <del>2</del>	ڡۨ	Rec Inte	0			
									Lean CLAY (continue	ed)	
	·					23—					
			dama	0.0	0	24			Lean CLAV with Rev	nd: dock br	num with rod brown
			oamp	0.9	0 0	-			mottling (and at 15)	nu. uark Dr	with light grev eand
					3	25—			nockets 10-20% fine	arained es	and moderate plasticity
	-					<del>ا</del> ا			very stiff	granca se	and, moderate presions;
						26					
	-	-							······································		
					}	27		· · · .			
						20					
					9	29					
			damp	0.5	11			CL	Sandy Lean CLAY:	medium gr	ey, 30-35% fine grained
				-	12	30			sand, moderate plast	ticity, very	stiff
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	_	-	damp	0.2	15						
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			damp		9						

Upger By: Differ: Consultants, Inc.     Heather Buckingham Office: Sampling Method: Sampling Method: Casing Type: Consultants, Inc.     Location: Casing Type: Sch. 40 PVC     3730 Hopyard Road     Page 3 of 4       Understand Consultants, Inc.     Differ: Casing Type: Sch. 40 PVC     Date Differ: Weil Dameter: State: Gravel Pack:     Office: State: Weil Dameter: State: Gravel Pack:     Adod. Split Shoe Weil Dameter: State: Gravel Pack:     Veil Dameter: State	]
Delta       Driler: Driler: Driler: Environmental Consultants, Inc.       Orage HSA Subscription Casing Type: Sot 3Date: Casing Type: Sot 40 PVC Casing Stokup: Casing Type: Sot 40 PVC Weil Diameter: Casing Stokup: Casing Stokup	
Delta       Driling Method:       HSA         sampling Method:       HSA         consultants, Inc.       Cossing Type:       Sol. 40 PVC         Sol Size:       0.02         Gravel Pack:       70 feet         Veloc Participation       Northing         Environmental       Cossing Stickup:       NA         Consultants, Inc.       Static Participation       R         Sol Size:       0.02       Casing Stickup:       NA         Weild Completion       Static Participation       Northing       Easting         Weild Completion       Static Participation       Sample Participation       Sample Participation         Veloc Participation       Static Participation       Sample Participation       Sample Participation         Veloc Participation       Sample Participation       Sample Participation       Sample Participation         Veloc Participation       Veloc Participation       Sample Participation       Sample Participation         Veloc Participation       Veloc Participation       Sample Participation       Sample Participation         Veloc Participation       Sample Participation       Sample Participation       Sample Participation         Veloc Participation       Veloc Participation       Sample Participation       Sample Parti	
Well       Description       Sample Method: CA Mod. Spit Shee       Hole Depth: Well Diameter:       79 feet 4 inch       Please see site map         Consultants, Inc.       Site: 0.02       Well Diameter:       4 inch       Yeet       Please see site map         Well Consultants, Inc.       Site: 0.02       Well Diameter:       Yeet       Northing       Easting       Please see site map         Well Completion       Static Toronpletion       Static Well Press       Static Static       Static Static       Static       Stati	
Environmental Consultants, Inc.       Canada Type:       Sch 40 PVC Site Size:       Well Dameter:       4 inch 73 feet         Consultants, Inc.       Site Size:       0.2       Well Depth:       73 feet         Completion By By Completion By By Completion By By Completion By By Completion By By Completion By By Completion By By Completion By By Completion By By Completion By	
Litrioninental damp (p.e. Softworte Consultants, inc. Slissize: 0.02       Well Depth:: 73 feet         Grave Pack: #3       Casing Stickup: NA         Well Depth:: 73 feet         Completion       Litrion Northing       Easing         Well Depth:: 73 feet         Completion       Static       Static       Static       Static       Static       Completion         Well Depth:: 73 feet         Completion       Litrion Northing       Easing         Well Depth:: 73 feet         Completion       Litrion Northing         Static       Static       Static         Well       CL       Standy Lean CLAY (continued)         - 486         - 486         - 486         - 486         - 486         - 486         - 486         - 486         - 486         - 486         - 48	
Consultants, Inc.     Gradue Pack:     0.2     Nothing     Nothing       Weill     Cosing Stokup:     Nothing     Essing       Weill     Static     9 to be of the state of the	
Usam vac.       Usam vac.       Elevation       Notiting       Elevation     Notifing       Elevation     Notifing       Elevation     Notifing       Elevation     Sample       Elevation     Sam	
Well Completion     Static     arr g reg re	
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Completion       Status       Stample By By Charles By Charle	
The set of th	
B       Column       B       Column       B       Column       CL       Sandy Lean CLAY (continued)	
damp         0.1         9         45         CL         Sandy Lean CLAY (continued)           46         46         47         48         49         48         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         <	
Description       0.1       7       45       46         46       47       48       49         48       49       49       48         49       49       49       48         48       49       49       49         48       49       49       48         49       49       49       49         48       49       49       49         48       49       49       49         49       50       51       50         61       51       52       50         9       53       52       53         9       53       53       53         12       54       55         12       54       55         12       54       56         18       56       57         18       56       57         19       58       57         11       57       58         15       58       58         15       58       58         15       58       58         15       58       58         15 </th <th></th>	
wet       0.2       7       50         48       49       48         49       48         49       50         61       51         52       53         6amp       7         9       52         9       53         11       55         12       54         13       55         14       55         15       56         16       56         17       57         18       56         17       57         16       58         17       57         16       58         17       57         11       58         15       58         16       58         17       57         16       58         17       57         16       58         17       57         16       58         17       57         16       58         17       57         16       58         17       57	
Wet       0.2       7       50         10       51       51         11       51       51         11       52       53         11       52       53         12       54       55         12       54       55         11       55       55         12       54       56         11       56       57         11       57       57         11       57       58         11       58       58         15       58       58	
Wet       0.2       7       50       46         48       49       48       49         48       49       49       48         49       50       50       50         10       51       50       51         11       51       50       51         11       51       52       50         11       52       52       53         12       54       53       53         12       54       55         18       56       55         56       56       56         57       57       56         58       58       58         58       58       58	
wet       0.2       7       50         damp       50       50         damp       51       50         g       52       50         damp       7       52         g       53       53         g       53       53         g       53       53         g       53       55         damp       7       55         wet       11       55         g       58       SC         Poorty Graded Fine Grained SAND with Clay: gree B0-85% fine grained sand, 15-20% fines, medium de D0-85% fine grained sand, 15-20% fines, medium de D1-85% fine grained sand, 15-20% fines, medium de D1-85% fine grained sand, 15-20% fines, medium de D1-85% fine grained sand,	
Wet         0.2         7         50           10         51         50         10           11         51         50         10           11         51         52         10           11         51         52         10           11         51         52         10           11         52         10         11           12         52         10         12           12         54         10         12           12         54         10         11           13         55         10         10           12         54         10         11           13         56         10         10           14         15         56         10           13         56         10         10           14         57         10         10           15         58         10         58           15         58         58         58	
wet       0.2       7       50         50       51       50         51       51       51         11       52       51         11       52       51         11       52       53         11       52       53         12       54       54         12       54       54         13       55       55         14       55       56         15       56       57         16       57       57         15       58       58         15       58       58         15       58       58         15       58       58         15       58       58	
wet       0.2       7       50       49         10       51       50       51       50         11       51       51       51       51         11       52       52       53       53         12       54       55       55       55         11       55       56       56       56         11       55       56       57       57         13       57       57       58       58       58         14       58       58       58       58       58	
wet         0.2         7         50         51         50         51         50         51         50         51         50         51         50         51         51         51         51         50         51         51         51         51         50         51         51         51         51         50         51         50         51         50         50         50         51         50         51         50	
wet       0.2       7       50       50         10       51       51       51       51         damp       7       52       53       53       53         damp       7       52       53       54       54         damp       0.1       11       55       55       56         damp       0.1       11       55       56       52         wet       0.1       11       55       56       52         wet       18       56       56       56       50         wet       17       57       57       58       58         SP       Poorty Graded Medium to Coarse Grained SAND       58       58	
wet         0.2         7         50	
wet       0.2       7       50       10       51       10       11       51       10       11 <t< td=""><td></td></t<>	
Joint 10       51       CL       Lean CLAY with Sand: grey, 15-20% fine grained simoderate plasticity, very stiff         damp       7       52       Sector       moderate plasticity, very stiff         damp       12       54       Sector       (same as above, grey mottling)         damp       11       55       Sector       Sector         damp       0.1       11       55       Sector         wet       17       55       Sector       Sector         18       56       Sector       Sector       80-85% fine grained sand, 15-20% fines, medium de         15       58       Sector       Sector       Sector       Sector         80-85% fine grained sand, 15-20% fines, medium de       Sector       Sector       Sector       Sector	
Joint Control       11       01       11       01       moderate plasticity, very stiff         Joint Control       9       52       11       12       12       12         Joint Control       12       54       12       12       12       12         Joint Control       11       12       54       12       12       12       12         Joint Control       11       12       54       12	and,
Join Structure       damp       7       52       53       (same as above, grey mottling)         Join Structure       damp       12       54       (same as above, grey mottling)         Join Structure       18       54       (same as above, grey mottling)         Join Structure       18       55       56       56         Join Structure       18       56       56       56         Join Structure       17       57       57       58         Join Structure       15       58       58       58         Structure       58       58       58       58	
9       9       53       (same as above, grey mottling)         12       54       18       (same as above, grey mottling)         12       54       55       18         18       7       55       56       56         18       56       56       56       50         wet       17       57       57       80-85% fine grained sand, 15-20% fines, medium de         15       58       58       SP       Poorty Graded Medium to Coarse Grained SAND	
damp       8       53       (same as above, grey mottling)         12       54       (same as above, grey mottling)         13       55       (same as above, grey mottling)         wet       11       (same as above, grey mottling)         13       56       (same as above, grey mottling)         14       15       58         15       58       (same as above, grey mottling)         16       17       15         17       15       16         18       17       17         19       10       10         10	
damp       9       00       (same as above, grey mottling)         12       12       12       12         18       54       18       18         7       55       18       18         6amp       7       55       18         18       56       56       56         5       57       11         5       57       11         15       58       58         25       58       SP         Poorty Graded Medium to Coarse Grained SAND       SAND	
damp       12       54       54         0.1       11       55       55         damp       0.1       11       55         wet       18       56       56         57       57       58         25       58       58         25       58       58         SP       Poorly Graded Medium to Coarse Grained SAND	<del>,</del> i
damp       18       7       55       55         0.1       11       55       56       56         wet       17       57       58       58         15       58       58       58       58         25       58       58       58       58	
0.1     11     55     56       18     56     56     56       5     57     80-85% fine grained sand, 15-20% fines, medium de       11     15     58       25     58     58	
damp     0.1     11       damp     18     56       wet     57       11     57       15     58       25     58       SP     Poorly Graded Fine Grained SAND with Clay: gree       80-85% fine grained sand, 15-20% fines, medium de       15     58       25     58	
wet vet vet vet vet vet vet vet vet vet v	AV.
wet 0 17 11 15 25 58 SP Poorly Graded Medium to Coarse Grained SAND	
Wet 17 57	1190
11 15 25 58 SP Poorly Graded Medium to Coarse Grained SAND	
25 58 - SP Poorly Graded Medium to Coarse Grained SAND	
	with
wet 33 Gravel: grey 10-15% gravel trace fine grained sand	d. dense
0.8 17 SC Poorty Graded Fined Grained Sand with Clay: sa	me
wet 27 SP Poorly Graded Medium to Coarse Grained SAND	with
50 for 5" 61 Gravel: same as above, very dense	
wet 33 62	
40 40 Poorly Graded Fine Grained SAND with Clay: sar	ne as
17 03 above, very dense	
19 64 SW Well Graded Coarse Grained SAND with Gravel:	grey,
wet 30 35-40% 1/4" gravel, trace large gravels up to 1", 60-	65%
12 65 sand, dense	
0.1 19 Graded SAND, CLAY and GRAVEL with Fine Gra	ined
wet 20 66 GC Sand: grey, ~15-20% fine grained sands, ~25-30%	nnes,
CL  50-55% gravel up to 1", dense	

				Project N	lo:	SJ37-90	H-1		Clien	t:	Sh	ell Oil Products	US	Well No: S-9c
-				Logged E	By:	Heather	Buckingha	m	Locat	tion:	37	30 Hopyard Roa	d	Page 4 of 4
	١.	- I.	4-	Driller:		Gregg			Date	Drilled:	10	/25/2005	Location Map	
	Jŧ	21	<b>I</b>	Drilling N	lethod:	HSA			Hole	Diamete	er: 10	) inch		
				Sampling	Method:	CA Mod	. Split Sho	e	Hole	Depth:	79	l feet	Please se	e site map
E	nvir	onme	ental	Casing T	ype:	Sch. 40	PVC		Well	Diamete	er: 4i	inch .		
Co	nsu	Itants	s, Inc.	Slot Size	:	0.02			Well	Depth:	79	) feet		
-				Gravel P	Elouation	#3		Morth	Casir	ig Sticki	up: NA I ⊏			
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	mpie	uon	Static	ture	m)	ratic s/6"	(fec	2	inpie 	Lype		1 17		
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Ba	ပိ				ā.	ă Ö	å	Rec	Int	5				
						12					Lean CL	_AY with Sar	nd: same as	s above, grey with brown
						12	67			CL	mottling,	, medium den	se	· · · · · · · · · · · · · · · · · · ·
		_		dry		14						· · · · · · · · · · · · · · · · · · ·		
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				dry	0.1	6	/0				-			· · · · · · · · · · · · · · · · · · ·
	÷			slight		8	71				(S	ame as abov	e, brown w	ith tan mottling, very stiff)
			-	damp		11								
	5 - 1 5 - 1					13	72							
ite				· .		8	<sup></sup>							
nton				damp		11	73							
Bei						4						· · · · · · · · · · · · · · · · · · ·		
NACIANA I.	2					12	74							
				moist	0.1	14				SC	Poorly (	Graded Fine	Grained S	AND: medium brown,
					-	14	/5				10-15%	fines, dense		
						28	76				<u> </u>			
g						28	//0							· · · · · · · · · · · · · · · · · · ·
Sai						28	77							
						50 for 5"	· · ·			SC	Poorly (	Graded SAN	D with Clay	y: medium brown, 15-20%
						18	78			0.44	fines, 80	J-85% fine gr	ained sand,	slight plasticity, dense
						33				500	well Gr	aded SAND:	tannish bro	wh, trace graver (~5%)
						20	79 —	88888			Boring to	erminated at	79 feet belo	ow ground surface
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							80	<b> </b>	1	1				
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(See Plate 2)     Deter Shell Oil Company     5-1       Determine the Hollow-Stem Auger     Construction California     Bayland     5       Determine the Hollow-Stem Auger     Company     See Well Construction Detail     5       Determine the Hollow-Stem Auger     Company     See Well Construction Detail     5       Determine the Hollow-Stem Auger     Company     See Well Construction Detail     5       Determine the Hollow-Stem Auger     Company     See Well Construction Detail     5       Determine the Hollow-Stem Auger     Company     See Well Construction Detail     5       Determine the Hollow-Stem Auger     Company     See Well Construction Detail     5       Determine the Hollow-Stem Auger     Company     See Well Construction Detail     5       Determine the Hollow-Stem Auger     Company     See Well Construction Detail     5       Determine the Hollow-Stem Auger     Company     See Well Construction Company     5       Determine the Hollow-Stem Auger     Company     See Well Construction Company     5       Determine the Hollow-Stem Auger     Company     See Well Construction Company     5       Determine the Hollow-Stem Auger     Company     See Well Construction Company     5       Determine the Hollow-Stem Auger     Company     See Well Construction Company     5       N	Fien. 5	cation of	boring:						Project No.:	7632	Date;	08/09/89	Boring No
(See Plate 2)       Idealer: 3790 Hoyard Road       3         Driving method:       Hollow-Stem Auger       See Well Construction Detail       See Well Construction Detail         Price demeter:       8-inches       Top of Box Elevelon:       Deturn:         Page demeter:       8-inches       Page demeter:       Description         Page demeter:       8-inches       Page demeter:       Description         Page demeter:       9-inches       1       Description <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Client:</th><th>Shell Oil Co</th><th>mpany</th><th></th><th>- 5-16</th></td<>									Client:	Shell Oil Co	mpany		- 5-16
Oning method:     Hollow-Stem Auger       Tota demeter:     3-nches       Sti			(\$	See Pla	te 2)				Location;	3790 Hopva	rd Road		
Drived method:         Hollow-Stem Auger         See Well Construction Detail           row demeter:         8-inChes         Top of Box Elevation:         Date:           g g s s g s g s g s g s g s g s g s g s			•					•	City:	Pleasanton.	California	*···	Sheet 1
Obligg         memode         Hollow-Stem Auger           role demeter:         8-InChes           2 5         5 5         5 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Logged by:</th><th>J. Vargas</th><th>Driller:</th><th>Baviand</th><th>012</th></t<>									Logged by:	J. Vargas	Driller:	Baviand	012
Deting         method:         Hollow-Stem Auger         See Well Construction Detail           Plos demeter:         8-inChes         Top of Box Elevator:         Deturn:           Pavel         12.93         Inchester:         Deturn:           Pavel         0         Pavel         Deturn:         Deturn:           Pavel         0.0         Pavel         Pavel         Deturn:           Pavel         1         Pavel         Deturn:         Pavel           Pavel         1         Pavel         Pavel         Pavel           Pavel         1         Pavel         Pavel         Pavel           Pavel         9         Pavel         Pavel and sand stringers; no chemical odor.									Casing instal	lation data:		007/0110	
Hole demote:       8-inches       Top of Box Elevator:       Dots minimize         gravel       gravel       gravel       gravel       gravel and sand stringers; no chemical odor.         ns       150       push       10       province       gravel and sand stringers; no chemical odor.         ns       150       push       10       province       gravel and sand stringers; no chemical odor.         ns       150       province       11       province       province       province         150       push       10       province       province       province       province         150       push       10       province       province       province       province         150       push       10       province       province       province       province       province         150       push       10       province       province       province       province       province       province         150       push       10       province       province<	Drilling	method:	Hollow-	Stem A	uaer		·		•	Sec	Well Cons	truction Deta	
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PAVEMENT SECTION - 2 feet           1         2           3         3           250         5&H           150         6           7         5           150         6           150         7           150         6           150         7           150         7           150         8           150         9           150         9           150         9           150         10           150         10           150         11           150         11           150         11           11         12           12         13           13         14           12         13           13         14           14         12           15         10           16         12           17         13           18         14           18         14           18         14           18         16           19         19           18				+	-				·				· · · · · · · · · · · · · · · · · · ·
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2       3       3       GRAVEL with SAND (GP) - olive gray (SY 4/2), loos         250       S&H       3       4         150       push       5       5         150       push       5       5         150       S&H       6       5         150       S&H       6       5         150       S&H       7       5         150       S&H       10       7         150       S&H       10       11         150       11       11       12         160       11       13       14         17       13       14       14         18       19       10       11         19       10       11       12         111       11       12		+			-				PAVEM	IENT SECTIC	DN - 2 teet		
2       3         3       3         250       S&H         150       push         5       5         150       push         7       6         150       push         8       9         150       push         16       11         12       12         130       11         14       12         150       push         16       13         17       14         18       14         19       16         11       17         18       19         19       19         19       10         10       11         11       12         12       13         13       14         19       16         19<	,,,,,,		+		- 1			1. A. A.					
3         3         GRAVEL with SAND (GP) - olive gray (SY 4/2), locs           250         S&H         5           150         push         5           150         push         5           150         push         5           150         push         6           7         Stiff, damp; 70% clay; 20% sit; 10% sand; medium           plasticity; no chemical odor.         8           150         S&H           9         gravel and sand stringers; no chemical odor.           NS         150           150         S&H           12         13           13         14           14         15           15         16           16         17           18         19           19         10           18         19		·		<u> </u>									· · · · · · · · · · · · · · · · · · ·
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a       a			+			<b>  </b>			GRAVE	L with SAND	(GP) - olive	gray (5Y 4/	2), <b>100</b> se,
250       \$&H         150       push         0       6         7       6         7       7         150       6         7       7         150       6         7       7         150       6         7       7         150       6         7       7         150       5 kH         9       9         150       S&H         9       9         150       S&H         150       push         10       11         12       13         13       14         2       S&H         13       14         2       S&H         13       14         2       S&H         13       14         14       14         2       S&H         13       14         14       15         15       16         16       17         18       19         19       19         11       10		<del> </del>		ļ	3	┝──┤			damp; 6	60% gravel; 3	0-40% sand	1; 5% clay.	
250       S&H       4         150       push       5         NS       150         150       6         7       7         8       7         150       8         150       8         150       8         150       9         150       9         150       9         150       9         150       9         150       9         150       9         150       9         150       9         150       11         12       12         13       12         14       12         15       13         15       16         16       17         18       19         19       11         11       12         12       13         13       14         14       5         15       16         18       19         19       11         11       12         18       19 <td< td=""><td></td><td></td><td></td><td> </td><td>-</td><td>┝╼╾┥</td><td>• .</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>					-	┝╼╾┥	• .						
150       push       5         NS       150         150       push         7       6         7       7         150       stiff, damp; 70% clay; 20% silt; 10% sand; medium         plasticity; no chemical odor.         150       skH         150       push         150       push         150       skH         150       skH         150       skH         12       11         130       11         14       12         2       skH         13       14         2       skH         14       14         2       skH         13       14         14       stiff; roots; black organics; mottled brown; no chem odor.         16       17         18       19         19       19         marks:       NS = no sample		000	0000	ļ	4	┝┳┯┥						····	
ISU         push         5         Isu           ISO         ISO         6         Iso         Iso           ISO         Iso         6         Iso         Iso         Iso           ISO         Iso         Iso         Iso         Iso         Iso         Iso           Iso <td< td=""><td></td><td>250</td><td>S&amp;H</td><td>l <del> </del></td><td></td><td><b>  </b>- </td><td></td><td></td><td></td><td>·</td><td><del></del></td><td></td><td></td></td<>		250	S&H	l <del> </del>		<b>  </b> -				·	<del></del>		
NS       150       6       CLAY with SiLT (CL) - very dark gray (5Y 3/1), mec         Stiff, damp; 70% clay; 20% sit; 10% sand; medium       plasticity; no chemical odor.         150       S&H       9         150       9       gravel and sand stringers; no chemical odor.         NS       150       push         150       push       10         NS       150       push         12       11         13       12         14       12         15       S-10-15         16       17         18       19         19       19	100	150	push	ļ	5	$\mu$		1. 1. 1			· · · · · · · · · · · · · · · · · · ·		
6         7           7         7           8         9           150         S&H           150         S&H           12         9           13         11           2         S&H           13         14           2         S&H           14         12           13         14           14         15           15         16           17         18           19         19	NS	150				Ш							
CLAY with SILT (CL) - very dark gray (5Y 3/1), mec           stiff, damp; 70% clay; 20% sin; 10% sand; medium           plasticity; no chemical odor.           9           150           150           150           150           150           150           150           150           150           111           12           13           14           2           14           15           16           17           18           19		1			6								
150       S&H         150       S&H         150       Push         150       S&H         11       gravel and sand stringers; no chemical odor.         NS       150         150       S&H         10       11         12       12         13       14         2       S&H         13       14         14       Stiff; roots; black organics; mottled brown; no chemical odor.         13       14         2       S&H         14       15         13       14         14       Stiff; roots; black organics; mottled brown; no chemical odor.         14       15         15       16         16       17         18       19         19       19         merks:       NS = no sample		<u> </u>						1/1	CLAY W	rith SILT (CL)	- very dark	gray (5Y 3/1	I), medium
150       S&H         150       S&H         150       push         150       push         150       push         11       10         12       11         13       12         14       13         2       S&H         13       14         2       S&H         14       Stiff; roots; black organics; mottled brown; no chemical odor.         0       5         15       16         17       18         19       19         merks:       NS = no sample					7			Y/X	stiff, dar	np; 70% clay	; 20% silt; 1	0% sand; m	edium
150       S&H         150       S&H         150       push         150       10         150       11         12       12         13       12         14       13         2       S&H         15       14         2       S&H         14       14         2       S&H         15       16         17       18         18       19         19       19         Imarks:       NS = no sample         Log of Boring       e		[						Y/X	plasticit	y; no chemic	al odor.	· · · · · · · · · · · · · · · · · · ·	· · ·
150       S&H         150       push         150       push         10       11         12       11         13       12         14       13         2       S&H         14       14         2       S&H         15       14         16       15         17       16         18       19         18       19         19       19		1			8			Y/X					
150       S&H         150       push         150       push         10       10         11       11         12       11         13       12         14       13         2       S&H         15       14         2       S&H         15       16         17       18         18       19         18       19         18       19		<u> </u>						Y/X					
150       S&H       gravel and sand stringers; no chemical odor.         NS       150       10         NS       150       11         150       11         12       12         13       12         14       13         2       S&H         15       14         2       S&H         14       stiff; roots; black organics; mottled brown; no chem         3       0         5       S-10-15         16       17         18       19         19       19					9			$1/\Lambda$					
150       push       10         NS       150         150       11         12       12         13       12         14       13         2       S&H         3       14         5       S-10-15         16       17         17       18         18       19         19       19         Imarks:       NS = no sample         Log of Boring       P		150	S&H	•				$V/\Lambda$	gravel a	nd sand strin	igers; no ch	emical odor.	•
NS       150       11         12       12         13       12         14       13         2       S&H         3       14         5       S-10-15         16       17         18       19         19       Log of Boring		150	push		10			$V/\Lambda$			-		:
11       12         12       13         13       14         2       S&H         3       14         2       S&H         15       odor.         0       5         5       S-10-15         16       17         18       19         19       10         marks:       NS = no sample         Log of Boring       e	NS	150		····	ļļ	Ш		$V/\Lambda$					
12       12         13       13         14       14         2       S&H         3       15         0       5         5       S-10-15         16       17         18       19         19       Log of Boring					11			$V/\Lambda$					
12         13           13         14           2         S&H           3         15           0         5           5         S-10-15           16         17           18         19								$V/\Lambda$					
13       13         2       S&H         3       15         0       5         5       S-10-15         16       16         17       18         18       19         19       10         Merks:       NS = no sample					12	<u> </u>		$V/\Lambda$					
13       14         2       S&H         3       14         5       S-10-15         16       17         18       19         19       19         Imarks:       NS = no sample         Log of Boring       9								V//5					,
14       14         2       S&H         3       15         0       5         5       S-10-15         16       17         17       18         19       19         marks:       NS = no sample         Log of Boring       9					13			Y//\$					
2         S&H           3         15           0         5           5         S-10-15           16           17           18           19   Log of Boring					] [			///					
2       S&H         3       15         0       5         5       S-10-15         16         17         18         19         marks:       NS = no sample	•				14			Y//\$				···	
3         15           0         5         S-10-15           16         16           17         18           18         19	Ī	2	S&H					Y//X	stiff; roo	ts; black org	anics; mottl	ed brown; n	o chemical
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		۲. ۲	300 Pial	92)				Location:	3790 Hopya	urd Road		0-10
								City:	Pleasanton,	California	-	Sheet 2
								Logged by:	J. Vargas	Driller:	Bayland	of 2
0-11					-			Casing instal	liation data:			
Unling	method;	Hollow	-Stem At	ldet					See	e Well Const	ruction Detai	ł
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Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

## **BORING/WELL LOG**

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	<u>S-11</u>		·'
JOB/SITE NAME	Shell-branded service station	DRILLING STARTED	26-Aug-02		
LOCATION	3790 Hopyard Road, Pleasanton, California	DRILLING COMPLETED	26-Aug-02		,
PROJECT NUMBER	244-0497	WELL DEVELOPMENT D	ATE (YIELD)	23-Sep-02	
DRILLER	Gregg Drilling	GROUND SURFACE ELE	VATION	328.04	
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVAT	ION	· · · · · · · · · · · · · · · · · · ·	
BORING DIAMETER	8"	SCREENED INTERVAL	10 to 25	ft bgs	
LOGGED BY	S. Dalie	DEPTH TO WATER (First	Encountered)	25.0 ft (26-Aug-02)	<u> </u>
REVIEWED BY	M. Derby, PE# 55475	DEPTH TO WATER (Stati	c)	16.9 ft (23-Sep-02)	<u> </u>
REMARKS	Hand augered to 5' bgs. Located in East side of	of Hopyard Road, south of well	S-10.	·····	

	(mqq) Olq	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION		CONTACT DEPTH (ft bge	WELL	DIAGRAM
		<1.0		S-11- 5.5					ASPHALT FILL; Sandy GRAVEL; gray; moist. CLAY; (CL); black; dry; 95% clay, 5% silt; high plasticity. @ 6.0 fbg - olive gray; 80% clay, 5% silt, 5% sand, 10% gravel; medium plasticity.		5.0		Portland Type I/II Bentonite Seal
15/03		<1.0		<mark>S-11</mark> - 10.5	XX	- 10			@ 10.0 fbg - dark gray; damp; 80% clay, 20% silt.				Monterey Sand #2/12
E3790.GPJ DEFAULT.GDT 3	•	<1.0		S-11- 15.5	X X		CL		@ 15.0 fbg - black; 90% clay, 10% silt.	¥			<ul> <li>2"-diam.,</li> <li>0.010" Slotted</li> <li>Schedule 40</li> </ul>
TON 3790 HOPYARD/GINT/PL		<1.0		S-11 20.5		- 20-							ΥVU
ELL LOG (PID/TPHG) G:/PLEASAN		<1.0		S-11 24.5		-25-				<u> </u>	25.0		Bottom of Boring @ 25 ft
۶L											d		PAGE 1 OF



Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

## **BORING/WELL LOG** ·

CLIENT NAM JOB/SITE NA LOCATION PROJECT NI DRILLER DRILLING MI BORING DIA LOGGED BY REVIEWED B REMARKS	E JMBER ETHOD METER BY	St St 37 24 Gi Ha 3" J. M Ha 24 Gi Ha 3" 4 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	nell 190 14-0 rego Ger . De and	Oil Proc branded Hopyar 497 1 Drilling w-stem ke erby, PE augere	d Roa auger 4 554 d to 5	JS d, Pleas 75 'bgs. L	on anton, California ocated in north side of	BORING/WELL NAME DRILLING STARTED DRILLING COMPLETED WELL DEVELOPMENT D/ GROUND SURFACE ELEV TOP OF CASING ELEVAT SCREENED INTERVAL DEPTH TO WATER (First DEPTH TO WATER (Station the Arroyo Mocho Canal Cree	S-12 <u>19-Sep-02</u> <u>19-Sep-02</u> ATE (YIELD) /ATION 10N <u>322.76</u> <u>10 to 25</u> Encountered) c) seek bank, east	23-Se 323.20 ft 5 ft bgs 23. 14. of Hop	p-02 0 0 ft (19-Sep- 7 ft (23-Sep yard Road.	<u>02)</u> <u>√</u> <u>−02)</u> <u>¥</u>
PID (p TPHg (	BLO	SAMPL	EXTE	DEP (ft bg	U.S.O	GRAP	LITH	OLOGIC DESCRIPTION		CONT	WELL	
<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0		S-12- 5.5 S-12- 10.5 S-12- 20.5 S-12- 20.5 S-12- 24.5			CL		FILL; Sandy CLAY         Sility CLAY; (CL); b         10% fine grained sa         @ 5.0 fbg - dark broken         @ 10.0 fbg - 65% c         @ 15.0 fbg - olive a         @ 20.0 fbg - 80% c	with gravel; light brown; dam rown; damp; 55% clay, 35% and, high plasticity. own; 75% clay, 25% silt. clay, 35% silt; medium plastic gray; 75% clay, 25% silt.	ιp. silt,	2.25.0		Portland Type I/I Bentonite Seal Monterey Sand #2/12  2"-diam., 0.010" Slotted Schedule 40 PVC Bottom of Boring @ 25 ft

PAGE 1 OF

			Droject Mc		9 137.00	4_1	Client	-	Shell Oil Products	US	Well No: S-14
				J.	Usether I	n- I Duakinahor		ion <sup>,</sup>	Trailaste # 7 & 8		Page 1 of 2
			Logged By	<i>;</i> :	neamer	ouckingnar			11000000		
	<b>.</b> I I	-	Driller:	1	Gregg	•	Date	Drilled:	10/20/2005	Location Map	
IJE	- 1	L d	Drilling Me	ethod:	HSA		Hole	Diameter			a alta man
			Sampling	Method:	Geoprob	e	Hole	Depth:	25 feet	Please se	e site map
Enviro	nme	ental	Casing Ty	rpe:	PVC		Well	Diameter	: 4 inch		the second second second second
Consult	tants	s. Inc.	Slot Size:		0.01		Well	Depth:	25 feet		
•		•	Gravel Pa	ck:	#2/12		Casir	ng Sticku	p: NA		
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					-	2		CL	Lean CLAY with Gr	avel: dark t	prown, 15-25% gravel (up
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			damp			·		CL	Lean CLAY: brown	with orangis	sn brown mottling, ~10%
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			U.	Upathar	n - I Ruckisch-		ion'	Trailmate # 7 & 8	Page 2 of 2
		Logged B	у.	neamer	поскивия		1011. David		
	ta	Driller:	_	Gregg		Date	United:	10/28/2005	Location Map
Der	17	Drilling M	ethod:	HSA		Hole	Diamete	r: 10 inch	
		Sampling	Method:	Geoprob	e	Hole	Depth:	25 feet	Please see site map
Environme	əntal	Casing T	ype:	PVC		Well	Diamete	r: 4 inch	
Consultant	s, Inc.	Slot Size:		0.01		Well	Depth:	25 feet	
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Well Completion			<u>6</u>	5 🕤	<b>G</b>	Sample	e		· · · · · · · · · · · · · · · · · · ·
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			Project No	<b>D</b> :	SJ37	7-901	4-1		Client	:	Shell Oil Products	JS	Well No: S-15
			Logged B	<b>y</b> :	Heat	ther I	Buckingh	am	Locat	ion:	trailgate #7 and #8		Page 1 of 2
	~1	to	Driller:		Greg	99			Date	Drilled:	10/28/2005	Location Map	
	31	ld	Drilling M	ethod:	HSA	۰.			Hole	Diameter:	: 10 inch	Dicese se	o sito mon
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		Decision		0 103 00	J. A	<b>A</b> P		Choll Oil Droducto LIC LAtall Mar C.4	5
		Project N	0:	2131-80	m-1	Client	;		
		Logged B	iy;	Heather	Buckinghar	n Locati	on:	trailgate #7 and #8 Page 2 of 2	
		Driller:		Gregg		Date I	Drilled:	10/28/2005 Location Map	
<b>  )    </b>	<b>I</b> A	Drilling M	lethod:	HSA		Hole [	Diamete	10 inch	
	<i>c</i> U	Samplind	Method:	Geoprob	e	Hole [	Depth:	25 feet Please see site map	
Environme	ental	Casing T	vpe:	PVC		Well [	Diamete	4 inch	
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								Project No .:	7632	Cale:	08/09/89	Boring No
								Client:	Shell Oil Co	mpany		
		(3	Sea Plate	e 2)				Location:	3790 Hopya	ird Road		
								City:	Pleasanton,	California		Sheet 1
								Logged by:	J. Vargas	Driller	Bayland	of 2
	· .							Casing instal	lation data:			
Xilling	method:	Hollow	-Stem Au	Jaer				]	See	Well Cons	truction Deta	<u>il</u>
iola dia	ameler;	12-inch	es					Top of Box E	levation:		Datum:	
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0	400		SR-1-5	1			Kr	CLAVE	Y SAND (SC	- dark orm	15Y 111 m	adium daa
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			}	-	<b> </b>		Y//			- DIACK (51	2.5/1), very	sun, damp
				11	<u> </u>			meaium	plasticity; 80	1% ciay; 20	% silt; no ch	emical odd
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				9			$V/\Lambda$	COLOR	CHANGE to	olive (5Y 4/	4) at 9.0 fee	<u>t.</u>
	400	S&H	SR-1-9				$V/\Lambda$	COLOR	CHANGE to	black (5Y 2	2.5) at 9.5 tee	et; no
	400	pusn		10	A		$V/\Lambda$	chemica	il odor.			
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UMBER		F	SEVIEWED BY	A BG/C	EG				DATE	REM	SED DATE	REVISED DAT

Field loc	cation of	borina:	r	•				1 Built of March			00/00/00	
1	a	wwinig.						Client:	7632		08/09/89	Bonng No:
		(5	See Plat	e 2)				Location	3790 Hora	inpany ind Boad		- SR-1
								City:	Bleasading	California		Sheet 2
								Logged by:	J Varnas	Driller	Bayland	
								Casing instal	lation data:		Dayland	
Drilling	method:	Hollow-	Stem A	uger					See	Well Const	ruction Deta	il
Hole die	umeter:	12-inch	es					Top of Box E	levation:		Datum:	
	្ត				1		5	Water Level	1		1	1
QÎ	1 A Z	jo e e de	22	E E	• de	1 3	Just Part	Time		1		
e 2	E E	£3	S S	Ā	S	≥å	Pot of	Date				
	<u> </u>						5			Description		
	3	S&H					V//	SANDY	CLAY (CL) -	olive gray (	5Y 4/2), stiff,	saturated;
100	5		00.00	្ <u>ឋ</u> 20			Y//	medium	plasticity; 60	0% clay; 409	% sand; brov	vn-gray
13.0	6	<u> </u>	DH-1-2	u Tor			$\chi//$	mottling	; roots; mod	erate chemi	cal odor.	
	<u> </u>	<u>}</u>		- 21			X///					
		<del> </del>		22	<b>  </b>		1/1			,		
<u>,</u>		+		1	<u>├</u>		V//		·	······	·····	
		+ <u></u>		23	├{		V1/					······································
		1		1			4//	······································				
				24	<b>  </b>		Y/X	~				
	0	S&H		]			Y///	· · ·			· · · · · · · · · · · · · · · · · · ·	
	1			] 25			1///	CLAY w	rith SILT (CL)	- black (5Y	2.5/1), soft.	damp,
0	4		SR-1-25	5	Z		$V/\Lambda$	medium	plasticity; 10	-20% silt; tr	ace organic:	s; roots;
			····.	26			$V/\Lambda$	burrows	; no chemica	il odor.		
							$V/\Lambda$					
				27			$\langle / / \rangle$	*		•		
								moist cla	ay to sand int	erbed at 24	feet.	
·	<u>1</u>			20			///					***
<u>-</u>		1		20			V/A					
1	4	S&H					$V/\Lambda$	· · · ·	· · · · · · · · · · · · · · · · · · ·			
	4	1		30				stiff: sati	urated sandy	lamina at 29	5 feet Inc	eased
0	6	N.	SR-1-30					sand, m	ottled: no ch	emical odor.		
				31 [								
							//X		·			
				32			$//\Lambda$					
	<u> </u>						//		·			
		l		33		ļ						····
<u> </u>				24								·
	3	S&H		- J-4 [			///					
	5			35			//h	Caturato	d at 34 E to 3	5 fact: no al	nomical ode	
0	7	<u>k</u>	B-1-35			ľ	///	Saturate	<u>, al 34.5 (0 3</u>	S leet, no ci	iennical 000	
İ				36			~~4					
		· · · · · ·					- F					
				37			F	Bottom o	of boring at 3	5.5 feet		
				ſ			· · ·	Bottom c	of sample at 3	15.5 feet.		······
· · · ·				38 [			Ē	09/20/89		·····		
						Ì	Ľ					
				39			[		·			
UNUKS:												
	-							-				
		Strategia	e inc			ļ	Log of B	oring				BORING N
ŻŚ		-n aleyic										on -
	<b>–</b>											<b>3K-</b>
IN THE P				Barre					0.475			
2		สม		7.77	61				08/80	NEVISI		NENDEL LATE

Field loc	sation of t	bonng:	· · · · · · · · · · · · · · · · · · ·			·····	<del></del>	Project No.:	7632	Date:	09/20/89	Boring No:
1.								Client:	Shell Oil C	ompany		Claudina .
1		(	See Plate	e 2)				Location:	3970 Hopy	ard Road		
				•				City:	Pleasanton	, California		Sheet 2
1								Logged by:	D. Ferreira	Driller;	Bayland	of 2
								Casing instal	lation data:			
Drilling	method:	Hollow	-Stem Au	iger				1	Se	e Well Cons	truction Deta	ail
Hole dia	ameler:	12-inch	nes					Top of Box E	levation:		Datum:	· · · · · · · · · · · · · · · · · · ·
		T		Ī	1		5	Water Level				
	4 9	5 8	2.2	E	ž		2 See	Time			1	
25		Sen .	E E	1	E S	žž	6 i G	Date				
	<b>.</b>				{		s e d			Description		
	3	S&H	1	1			VII	COLOF	CHANGE 1	o dark gray	(2.5Y N4/), s	tiff,
	4	1		20			V//	saturate	ed, low plast	icity; trace v	ery fine sand	d; trace silt;
81	5		SR-2-20	3			$\langle / / \rangle$	trace or	ganics; wea	ak sulfur odo	r.	
				21			$\langle / / \rangle$					
				] .			X///	1				
	<u> </u>			22			$\langle / / /$	L				
		1		1			$\langle / / /$			". <b>.</b>		
	1			23			V//					
		1	<u> </u> .				V//		· · · · · · · · · · · · · · · · · · ·			
ļ			1	24			V//	COLOF	CHANGE	o very dark	gray (5Y 3/1)	), moist, low
	2	S&H					V//	plasticit	y; trace very	/ tine sand; I	race silt; tra	ce organics:
	5	ļ		25			Y//	trace w	ood tragmer	nts; roothole	s tilled with s	suty clay;
73	6	1	SR-2-25				$\langle / / /$	weak st	ulter odor			
	<u> </u>			26			$\langle / / \rangle$					· · · · · · · · · · · · · · · · · · ·
	<u> </u>						$\chi//$	ļ				
	ļ	1	- <u> </u>	27				ļ			Life	
	1	ļ	!		<u> </u>							
		1		28								
	<u> </u>	1					¥//	0.014		ADV (EVAIN)		hich
	<u> </u>	0.011		29			$\langle / / \rangle$		CH) - Dark g	ray (514/1)	- Stin, moist,	
	3	S&H					<i>\//</i>	plasticit	y; trace very	filling rooths	Sand; liace	
45		1		30			<i>\///</i>	organic	s; oxidation	mang rootine	pies, modera	
43	3	] 	1	24								
	1	1	1	31								
	1	i i	1	32			V//		<u></u>		· · · ·	·····
	1			02			V//			······	·····	······································
	1	<u>.</u>	1	33			V//					
	<u> </u>	1	· ·				Y///				<u></u>	
	İ	<u>.</u>	1	34.			Y///					· · · · · · · · · · · · · · · · · · ·
	6	S&H			<b>T</b>		X///	modera	te to high pl	asticity.		
	6	1	1	35			1//		<u> </u>			
4	9	ľ	SR-2-35	-			$\langle / / /$	Bottom	of boring at	35.5 feet.		
	<u> </u>			36				Bottom	of sample a	t 35.5 feet.		
		1	1					09/20/8	9		· · · · · · · · · · · · · · · · · · ·	
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Remarks	;			1	ć,							
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							Log of	Borina				BORING NO
00	Geo	Strateg	gies Inc.					<b>-</b>				<b>. . .</b>
		-										SR-2
	8886							1				
JOB NUMBE	A		REVIEWED B	IY FIGA	Œ		······		DATE	AE	ASED DATE	REVISED DATE
7632	_		(wp ce	6/0	462	<b>-</b> '			09/89			

. <sup>1</sup>

Field loc	abon of	bonng:						Project No.:	7632	Dete:	09/20/89	Baring
•								Client:	Shell Oil Co	vnsamo		
		6	See Plat	e 2)				Location:	3970 Hoov	ard Road	······	- 3
		``		,				City:	Pleasanton	California		Sheet
								Logoad by:	D Formeira	Driller	Bayland	
								Carion instal	Lation data:		Dayiand	
Ocillian	method.		Stom A								truction Data	- : 1
Lonung		HOHOW	-Stem At	ldei				Tere of Barry F	50	e weil Cons	truction Deta	311
MOIO CIA						1		TOP OF BOX E			Detum:	
				2			<del>5</del> 8	Water Level				
PE	100	- de	de	6	1 de	1 North	8 <u>5</u>	Time				
- 9	610	28	83	8	8	>0	Hộc đã	Date		<u> </u>		
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	[			1			777	PAVEM	IENT SECTION	<u> ON - 0.6 feet</u>		
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				2			111		-	·		
		ļ <u></u>		1			VII	CLAY W	rith GRAVEL	. (CL) - brow	m (10YR 5/4	), stiff, da
			1	3			V//	low plas	sticity; 15% g	gravel; 10%	sand; no ch	emical o
			<u> </u>				V/L	SANDY	CLAY (CL)	- dark gray (	(5Y 4/1), stiff	, damp, l
			1	4			1-1/	plasticit	y; increasing	y sand to 30	%; no chem	ical odor
	100	S&H	ļ				Y///					
	100	push	1	5			$\langle / / \rangle$					
0	100		SR-2-5		1		X///	CLAY (	CL) - very da	irk gray (5Y	3/1), mediur	n stiff, da
				6			$\langle / / /$	low plas	ticity; 5% fin	e sand; 5%	silt; trace or	ganics; 1
				]			$\langle / / /$	pebbles	; roots; wea	k chemical o	odor.	-
				7			$\langle / / \rangle$					
				]	$\square$		XII					
			1	8				······································				
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	150	S&H		1						······································		, ,
	150	push	1	10				COLOR	CHANGE to	o dark gray	(5Y 4/1); me	dium
5	150		SR-2-10				$V/\Lambda$	plasticity	r; no chemic	al odor.	<b></b>	· . ·
1			1	11			$V/\Lambda$		<u></u>		· · · ·	
							$V/\Lambda$				÷ 1	
				12					······································	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
							V//				. <b>-</b>	
·	i		i	13			VIA		· · · · · · · · · · · · · · · · · · ·			
1				-			Y//		•		· · · · · · · · · · · · · · · · · · ·	
	i			14	<b>;</b>		Y//X		· · · · · ·		•	
i	0	S&H		<i>,</i> ,			YIA	· · · · · · · · · · · · · · · · · · ·	<b></b>			
	2			15			YIX			ven dan r	10 /5Y 3/1)	low
12	4		58.2.15				Y//	nlasticin	1. 10% eitr	voak chomic	al odor	1 10 11
				16			Y///	piasucity	1 10 /0 SHL, V	Fear Chenne		
				10			YIIX					
7				4-7			Y//X		······································			
<u> </u>				17			1//	••••••••••••••••••••••••••••••••••••••			• • • • • • • • • • • • • • • • • • •	
				40			1//					
				10	<b></b>		X//	·····				
				40	┝──┥,	77	$V/\Lambda$					······
) Amedication		4-2112		19	ŀ	<u>×</u>						
INNERS:	Boring C	filled wi	th 8-inch	Ho	llow-	Stem A	Augers 09	20/89.				
		100 09/2	0/89 with	112	-inch	Hollov	w-Stem Au	igers.				
		Straton	iae Inc				Log of E	loring				BO
	Geo	Juareg	ica IIIÇ.									CF
												ЭH
	94 											
					· · · · · ·							

(See Plate 2)         Installation         Strip         Outputs 2         Strip         Strip         Outputs 2         Strip         Strip <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Client</th><th>Shell Oil Co</th><th>mnany</th><th></th><th><b></b></th></th<>									Client	Shell Oil Co	mnany		<b></b>
John String         Set Unity Pail Chain         Set Unity Pail Cha			1		2				Location:	3070 400	and Road		- 36
United         Pressarior, California         See           Drilling         method:         Hollow-Stem Auger         See Well Construction Detail         or           Press         To of the Cleavalor:         See Well Construction Detail         To of the Cleavalor:         Data           Press         To of the Cleavalor:         To of the Cleavalor:         Data         Detail           Press         To of the Cleavalor:         Data         Detail         Detail           O         S&H         20         COLOR CHANGE to dark gray (5Y 471), medium s           235         SR3-20         21         COLOR CHANGE to dark gray (5Y 471), medium s           235         SR3-20         21         COLOR CHANGE to gray (10YR 5/1), damp, medium s           236         SR3-20         21         Stiff, moist, medium plasticity; trace silt; trace orga           0         S&H         22         Stiff, moist, medium plasticity; trace silt; trace orga           10         224         27         SR3-23         Stiff, moist, medium plasticity; trace silt; trace orga           115         6         SR3-30         1         Fred oxidation at 30 feet; no chemical odor.           115         6         SR3-33         1         Fred oxidation at 30. feet; no chemical odor.           <			. (	Joc Fidle	<del>7</del>					3970 HODY			
Loged by:         D. Ferreiza         Drifler:         Bayland         o           Drifler:         method:         Hollow-Stem Auger.         See Well Construction Detail         See Well Construction Detail           Page         ging         ging         ging         ging         ging         Detain:         Detain:         Detain:           Page         ging         ging         ging         ging         ging         Detain:         <									City;	Pleasanton	, California		Sheet_
Drilling method:         Hollow-Stem Auger         Top of box Elevation:         Description           2 g         g g <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Logged by:</th><th>D. Ferreira</th><th>Driller</th><th>Bayland</th><th>of</th></t<>									Logged by:	D. Ferreira	Driller	Bayland	of
Drilling memory     Hole Stern Auger     See Well Construction Detail       14 Se diameter     12-inches     Top of fax Elevation:     Datum:       2 Set diameter     2 and a set diameter     Data fax diameter     Description       0     S&H     20     Top of fax Elevation:     Description       2 Set diameter     2 and a set diameter     Description     Description       0     S&H     20     COLOR CHANGE: to drark gray (57 471), modules; no chemical odor.       2 Set diameter     2 and a set diameter     Color Chank gray (57 471), modules; no chemical odor.       2 Set diameter     2 and a set diameter     Set diameter       2 Set diameter     2 and a set diameter     Set diameter       2 Set diameter     2 and a set diameter     Set diameter       2 Set diameter     2 and a set diameter     Set diameter       2 Set diameter     2 and a set diameter     Set diameter       2 Set diameter     2 and a set diameter     Set diameter       2 Set diameter     2 and a set diameter     Set diameter       2 Set diameter     2 and a set diameter     Set diameter       2 Set diameter     2 and a set diameter     Set diameter       3 Set diameter     2 and a set diameter     2 and a set diameter       3 Set diameter     3 and a set diameter     3 and a set diameter <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Casing install</th> <th>lation data:</th> <th></th> <th></th> <th></th>									Casing install	lation data:			
Hote demote:         12-inches         Top if bx Elevator:         Datum:           2 g 2 g 2 g 2 g 2 g 2 g 2 g 2 g 2 g 2 g	Drilling n	nethod:	Hollow	Stem Au	iger				1	Se	e Well Con	struction Deta	il
2         3         3         4         4         5         7         7         7         5         3         2         1         1         6         5         3         2         1	Hole diar	neter:	12-inch	es		••••••			Top of Box E	levation:		Detum:	
2 3       3 4       2 4       3 4       2 4       3 7       3 8         0       S&H       20       COLOR CHANGE to dark gray (SY 4/1), medium s saturated; trace coalcum nodules; no chemical odor.         235       5       SR3-20       21       COLOR CHANGE to dark gray (SY 4/1), medium s saturated; trace coalcum nodules; no chemical odor.         235       5       SR3-20       21       COLOR CHANGE to dark gray (SY 4/1), medium no chemical odor.         236       5       SR3-25       21       Saturated; trace coalcum nodules; no chemical odor.         284       7       SR3-25       26       Stiff, moist, medium plasticity; trace sit; trace orga weak H <sub>2</sub> S odor.         284       7       SR3-25       26       Saturated cootholes; small mollusk f         115       6       SR3-30       1       red oxidation at 30 feet; no chemical odor.         115       6       SR3-33       1       red oxidation at 30 feet; no chemical odor.         4       S&H       33       34       24       25         135       7       SR-33       36       Saturated cootholes; too; organic matter sand; trace cobbles; no chemical odor.         135       7       SR-33       36       Saturated cootholes; too; organic matter sand; trace cobbles; no chemical odor. <t< td=""><td>1</td><td></td><td>1</td><td>1</td><td>1</td><td></td><td></td><td>ß</td><td>Water 1 evol</td><td>1</td><td>T</td><td></td><td></td></t<>	1		1	1	1			ß	Water 1 evol	1	T		
Page       Page	_	y J	2.5		E			30	Time	+			
Image: Second state in the second state in	5 g		a de	l gg	- Se		Ne Miai	0 2					
0         S&H         20         Counter of the set of the s	<b>45</b> 	a j	F ð	のえ	8	8	- 0	S L	Date	<u></u>			1
U         SSH         ZOLOR CHANGE to dark gray (5Y 47), medium s           235         5         \$R3-20         Saturated; trace lossif; trace calcium nodules; no           235         5         \$SR3-20         Saturated; trace lossif; trace calcium nodules; no           24         22         Saturated; trace lossif; trace calcium nodules; no           6         \$S&H         22           6         \$S&H         24           7         \$SR3-25         26           24         7         \$SR3-25           28         7         \$SR3-25           3         \$SAH         25           3         \$SAH         27           3         \$SAH         30           6         \$SR3-30         ST           3         \$SAH         30           6         \$SR3-30         ST           115         6         \$SR3-30           4         \$SRH         35           135         \$SR3-33           4         \$SRH           35         \$SR           135         \$SR-3-35           6         \$SR           37         \$SR-3-35           84         \$SR		<u>a.</u>		<u> </u>	<b>_</b>	╘╾┦		- <u></u>			Descriptio	n (=) ( =) (	
235         5         SR3.20         21           236         5         SR3.20         21           24         22         23           26         5         SR3.20           21         22         23           21         22         23           22         23         24           6         S&H         25           284         7         SR3.25           284         7         SR3.25           28         27         28           3         S&H         30           4         S&H         32           33         34         34           4         S&H         35           33         34         34           4         S&H         35           33         34         34           4         S&H         35           33         34         34	·	<u> </u>	S&H	· · · · · · · · · · · · · · · · · · ·				111	COLOR	CHANGE t	o dark gray	(5Y 4/1), med	dium stif
235       5       SR3-20 21         21       22         22       23         23       23         24       24         6       S&H         25       24         7       SR3-25         28       27         284       7         3       S&H         28       27         28       27         29       28         3       S&H         3       S&H         33       28         3       S&H         30       29         3       34         115       6         5       33         4       S&H         32       33         4       S&H         33       34         4       S&H         34       34         5       35         33       34         4       S&H         35       35         135       36         36       37         80tom of sample at 35.5 feet.         Bottom of bample at 35.5 feet.		2	ļ		20			1/1	saturate	ed; trace fos	sils; trace c	alcium nodule	es; no
21       22         23       23         24       24         5       24         5       24         28       7         3       S8H         30       COLOR CHANGE to gray (10YR 5/1), damp, medining plasticity, saturated rootholes; small mollusk f         red oxidation at 30 feet; no chemical odor.         115       6         32       33         4       S8H         35       35         135       7         5       37         9       Satisticity; saturated rootholes; 10% organic matter sand; trace silt; trace otholes; 10% organic matter sand; trace silt; trace otholes; 10% organic matter sand; trace silt; trace otholes; no chemical odor.         Bottom of sample at 35.5 feet.       Bottom of sample at 35.5 feet.         Bottom of sample at 35.5 feet.       09/19/89         Venextex       39         Venextex       09/19/89	235	.5		SR3-20	1 -			1/1	chemica	al odor.			
22       23         6       S&H         24       25         5       24         6       S&H         284       7         3       S&H         28       27         28       27         28       27         28       28         3       S&H         30       28         3       S&H         30       28         31       28         32       28         33       34         115       6         5       32         33       33         4       S&H         35       33         4       S&H         35       33         4       S&H         35       33         4       S&H         35       35         135       7         5       33         33       34         5       35         36       36         37       8         8       09/19/89         9       9	]	· · · · · · · · · · · · · · · · · · ·			21			VIII	1				
22       23         6       S&H         25       284         7       SR3-25         284       7         3       S&H         3       S         4       S&H         33       S         4       S&H         34       S         135       T         5       SR-3-35         6       SR         135       T         5       SR-3-35         6       SR         135       T         5       SR-3-35         6       SR         37       SR         38       Og/19/89         9       SR         9       SR </td <td></td> <td></td> <td>1</td> <td></td> <td>1</td> <td></td> <td></td> <td>V/14</td> <td>1</td> <td></td> <td></td> <td></td> <td></td>			1		1			V/14	1				
a       23         a       24         b       5         284       7         3       584         27       28         3       584         3       584         3       584         3       584         3       584         3       584         3       584         3       584         3       584         3       584         3       584         3       584         30       6         115       6         5       583-301 31         115       6         4       584         32       33         4       584         35       36         135       7         36       37         9       136         38       09/19/89         39       100 floring         136       38         09/19/89       09/19/89         137       100 floring         138       09/19/89				1	22			11/1					
1       23         6       S&H         5       24         8       3         284       7         3       S&H         28       27         3       S&H         30       COLOR CHANGE to gray (10YR 5/1), damp, medin         115       6         5       SR3-30         115       6         4       S&H         32       S         4       S&H         33       S         135       7         135       7         136       37         137       S         138       39         139       S         131       S         132       S         133       S				1	1			VIII			<u> </u>		
6       S&H       25         5       26         5       27         284       7         3       S&H         29       28         3       S&H         30       29         3       S&H         30       29         33       29         34       29         33       20         24       30         115       6         5       31         4       S&H         32       33         33       34         4       S&H         35       35         135       7         37       SR-3.35         38       39         24       38         39       29         20       38         39       29         20       <	ŕ		<u> </u>	1	23			VVII				· · · · · ·	
6       S&H       24         5       28       25         284       7       SR3-25         28       27       28         3       S&H       30         3       S&H       30         3       S&H       30         3       S&H       30         115       6       SR3-30         115       6       SR3-30         3       34       34         4       S&H       35         135       7       SR-3-35         4       S&H       34         33       34       34         4       S&H       35         135       7       SR-3-35         36       37       Sector of boring at 35.5 freet.         Bottom of sample at 35.5 freet.       Bottom of boring at 35.5 freet.         09/19/89       39       9         Secostrategies Inc.       Log of Boring       Secostrategies Inc.			<u></u>	1				4/11					<u> </u>
6       S&H       25         284       7       SR3-25       26         284       27       28       29         3       S&H       30       30       COLOR CHANGE to gray (10YR 5/1), damp, mediant of the symall mollusk 1         115       6       SR3-30       31       COLOR CHANGE to gray (10YR 5/1), damp, mediant mollusk 1         115       6       SR3-30       31       red oxidation at 30 feet; no chemical odor.         3       33       33       33       Statisticity; saturated rootholes; small mollusk 1         135       7       SR-3.35       35       Statisticity; saturated rootholes; 10% organic matter sand; trace silt; trace cobbles; no chemical odor.         3       38       09/19/83       Statisticity; Saturated rootholes; 10% organic matter sand; trace silt; trace cobbles; no chemical odor.         8       39       Statisticity; Saturated rootholes; 10% organic matter sand; trace silt; trace cobbles; no chemical odor.         8       8       09/1	·			1	24			VII				· · · ·	
6         S&H         25           5         SR3-25         26           284         7         SR3-25         26           284         7         SR3-25         26           28         27         28         27           3         S&H         30         28           3         S&H         30         COLOR CHANGE to gray (10YR 5/1), damp, mediting plasticity, saturated rootholes; small mollusk f           115         6         SR3-301 31         11         red oxidation at 30 feet; no chemical odor.           4         S&H         32         33         34         11           4         S&H         33         34         11         11           5         SR3-33         34         11					-7			VII					
v         Sam         So           284         7         SR3-25         26           284         7         SR3-25         26           3         S&H         30         COLOR CHANGE to gray (10YR 5/1), damp, mediting plasticity, saturated rootholes; small mollusk f           115         6         SR3-30         31           115         6         SR3-30         31           4         S&H         30           135         7         SR3-33           4         S&H         35           135         7         SR3-33           3         34           4         S&H           33         34           4         S&H           35         35           36         S           37         SR-3-35           38         0//19/83           39         0//19/83           39         0//19/83           39         0//19/83		<u> </u>	COLI		25			1/1					
3         SR3-25         26           284         7         SR3-25         26           27         27         28         27           284         7         SR3-25         26           284         7         SR3-25         26           284         7         SR3-25         26           3         S&H         30         COLOR CHANGE to gray (10YR 5/1), damp, medithing           115         6         SR3-30         31         Fed oxidation at 30 feet; no chemical odor.           4         S&H         32         33         Fed oxidation at 30 feet; no chemical odor.           4         S&H         35         35         Fed oxidation at 30 feet; no chemical odor.           4         S&H         35         S6         S6         S6           33         34         S6         S6         S6         S6           35         37         S6         S6         S6         S6           38         39         S6         S6         S7         S6           38         39         S6         S6         S6         S6           38         39         S6         S6         S6         S6 <td></td> <td></td> <td>Jan</td> <td></td> <td>20</td> <td></td> <td></td> <td>VIII</td> <td>stm, mo</td> <td>ist, medium</td> <td>plasticity; t</td> <td>race sin; trace</td> <td>e organi</td>			Jan		20			VIII	stm, mo	ist, medium	plasticity; t	race sin; trace	e organi
284         7         SR3-25         26           3         S&H         30         28           3         S&H         30         COLOR CHANGE to gray (10YR 5/1), damp, medi           6         115         6         SR3-30         31           115         6         SR3-30         31         red oxidation at 30 feet; no chemical odor.           4         S&H         33         34         10         CLAY (CH) - dark gray (10YR 4/1), stiff, moist, high plasticity; saturated rootholes; 10% organic matter           35         34         34         10         115         6         SR3-33         10         115		5						111	weak Ha	25 odor.	· · · · · · · · · · · · · · · · · · ·		
3       S&H       30       COLOR CHANGE to gray (10YR 5/1), damp. medi         3       S&H       30       COLOR CHANGE to gray (10YR 5/1), damp. medi         115       6       SR3-30       31         4       S&H       32       Secondary         33       33       CLAY (CH) - dark gray (10YR 4/1), stiff, moist, high         135       7       SR-3-35         36       37       Secondary         38       39       Secondary         With Basicity       Saturated rootholes: 10% organic matter         Saturated rootholes:       10% organic matter         38       39       Secondary         Secondary       39       Secondary         Secondary       Secondary       Secondary	284	7		SR3-25	26			VII					
27       28         3       S&H         3       S&H         3       S&H         3       S&H         3       S&H         30       COLOR CHANGE to gray (10YR 5/1), damp, meding         115       6         5       33         33       34         4       S&H         33       34         4       S&H         35       35         135       7         5       35         135       7         5       35         135       36         6       37         135       36         38       09/19/89         39       Code Boring					Í			1.13	· · · · · · · · · · · · · · · · · · ·				
3       S&H       30         3       S&H       30         6       115       6         115       6       SR3-30         33       32       33         4       S&H       35         33       34       34         4       S&H       35         34       34       34         5       35       35         CLAY (CH) - dark gray (10YR 4/1), stiff, moist, high plasticity; saturated rootholes; 10% organic matter sand; trace silt; trace cobbles; no chemical odor.         Bottom of sample at 35.5 feet.       Bottom of boring at 35.5 feet.         Bottom of boring at 35.5 feet.       09/19/89         Settrategies Inc.       Log of Boring					27			111		· · · · · · · · · · · · · · · · · · ·			
28       28         3       S&H         6       30         115       6         115       6         32       33         33       34         4       S&H         34       34         5       33         135       7         SR-3.33       34         4       S&H         35       34         135       7         SR-3.33       36         34       34         35       35         135       36         36       37         Bottom of sample at 35.5 feet.         Bottom of boring at 35.5 feet.         Bottom of boring at 35.5 feet.         9/19/89         39         Log of Boring								141	······				
3       S&H       30         3       S&H       30         6       I15       6         115       6       SR3-30         115       7       SR3-30         115       32       S         115       6       SR4         12       33       S         135       7       SR-3-35         135       7       SR-3-35         135       7       SR-3-35         135       36       S         135       7       SR-3-35         135       36       S         135       7       SR-3-35         136       37       Bottom of sample at 35.5 feet.         Bottom of boring at 35.5 feet.       09/19/89         137       38       S         138       39       S         139       S       S         140 <t< td=""><td>†</td><td></td><td></td><td>  </td><td>28</td><td></td><td></td><td>1.1</td><td></td><td></td><td></td><td>1</td><td></td></t<>	†				28			1.1				1	
3       S&H       30       COLOR CHANGE to gray (10YR 5/1), damp, medi         115       6       SR3-30       31         115       7       SR-33       7         135       7       SR-3-35       6         135       8       0       0/10/R 4/1), stiff, moist, high         plasticity; saturated rootholes; 10% organic matter       sand; trace silt; trace cobbles; no chemical odor.         Bottom of sample at 35.5 feet.       Bottom of boring at 35.5 feet.       0/19/89         iemarks:       39       0/19/89				<u>├</u>	{			1/1	· · · · · · · · · · · · · · · · · · ·				
3       S&H       30         6       115       6       SR3:30       31         115       6       SR3:30       31       red oxidation at 30 feet; no chemical odor.         3       32       33       1       red oxidation at 30 feet; no chemical odor.         4       S&H       32       1       1         3       34       34       1       1         4       S&H       35       1       1         135       7       SR-3:35       1       1         135       36       37       1       1       1         136       37       38       0       0       1       0         137       1       38				ii	20			11/1		. <u> </u>	:	······	
3       S&H       30         6       115       6       SR3-30       31         115       6       SR3-30       31       red oxidation at 30 feet; no chemical odor.         32       33       32       33       set oxidation at 30 feet; no chemical odor.         4       S&H       32       33       set oxidation at 30 feet; no chemical odor.         4       S&H       34       set oxidation at 30 feet; no chemical odor.       set oxidation at 30 feet; no chemical odor.         135       7       SR-3-35       Set oxidation at 30 feet; no chemical odor.       set oxidation at 30 feet; no chemical odor.         135       7       SR-3-35       Set oxidation of set oxidation at 30 feet; no chemical odor.       set oxidation at 30 feet; no chemical odor.         135       7       SR-3-35       Set oxidation of sample at 35.5 feet.       set oxidation of set oxidation of set oxidation of set oxidation of set oxidation.         135       7       SR-3-35       set oxidation of set oxidation.       set oxidation of set oxidation.         135       7       SR-3-35       set oxidation of set oxidation.       set oxidation.         135       7       SR-3-35       set oxidation of set oxidation.       set oxidation.         136       37       38       set oxidat				;				VII					
6       Image: Sector Contracts of gray (101m3/1), dalip, medulation in the sector of th	<del> -</del>	3	SEL		30			11/1		CHANGE .	nray /10V	(R 5/1) dama	modium
115       6       SR3-30       31       red oxidation at 30 feet; no chemical odor.         115       6       SR3-30       31       red oxidation at 30 feet; no chemical odor.         115       6       SR3-30       32				<u> </u>	~			111	high alo	sticity entrie	atod rooth	i los emalima	livek for
Image: Second St     Image: Second St     Image: Second St     Image: Second St       Image: Second St     Image: Second St     Image: Second St     Image: Second St       Image: Second St     Image: Second St     Image: Second St     Image: Second St       Image: Second St     Image: Second St     Image: Second St     Image: Second St       Image: Second St     Image: Second St     Image: Second St     Image: Second St       Image: Second St     Image: Second St     Image: Second St     Image: Second St       Image: Second St     Image: Second St     Image: Second St     Image: Second St	116			603 301	24			VIX		ation of 204	acturo at-	minol odar	AUST IUS
32       33         4       S&H         5       35         135       7         5       35         135       7         5       36         37       Bottom of sample at 35.5 feet.         Bottom of sample at 35.5 feet.         Bottom of boring at 35.5 feet.         09/19/89	112			373-30	31			VIN	rea oxia	alion at 30 h	eer, no che	mical ocor.	
32     33       4     S&H       5     35       135     7       5     35       135     7       5     36       9     9       9     9       135     10% organic matter       136     10% organic matter       137     10% organic matter       138     10% organic matter       139     10% organic matter       138     10% organic matter       139     10% organic matter       100 of sample at 35.5 feet.     10% organic matter       100 of boring at 35.5 feet.     10% organic matter       100 of Boring     10% organic matter				ļ				VII	···		······································	·····	
4       S&H         5       34         135       7         SR-3-35       36         36       37         Bottom of sample at 35.5 feet.         Bottom of boring at 35.5 feet.         09/19/89	· · ·				32			1/1				·····	
4       S&H         5       35         135       7         135       7         36       Sand; trace silt; trace cobbles; no chemical odor.         Bottom of sample at 35.5 feet.         Bottom of boring at 35.5 feet.         38         09/19/89	· ·							VHA		-			
4       S&H         5       35         135       7         135       7         36       37         Bottom of sample at 35.5 feet.         Bottom of boring at 35.5 feet.         Bottom of boring at 35.5 feet.         38         09/19/89					33 [			VIA	· · · · · · · · · · · · · · · · · · ·				
4       S&H         5       35         135       7         135       7         36       36         37       36         37       36         37       37         Bottom of sample at 35.5 feet.         Bottom of sample at 35.5 feet.         38       09/19/89         Bernarks:       Log of Boring					Ī			1/					
4       S&H         5       35         135       7         5       35         135       7         5       36         9       9         9       9         135       7         135       7         135       7         135       7         136       36         137       36         36       37         Bottom of sample at 35.5 feet.         Bottom of boring at 35.5 feet.         9       39         Bernarks:       Log of Boring					34 Ì			1//	·····				
5       35         135       7         135       7         36       36         37       36         37       36         37       37         Bottom of sample at 35.5 feet.         Bottom of boring at 35.5 feet.         09/19/89	1	4 1	S&H		İ			1///		· · · · · · · · · · · · · · · · · · ·			
135     7     SR-3-35     SR-3-35     Plasticity; saturated rootholes; 10% organic matter       36     sand; trace silt; trace cobbles; no chemical odor.       37     Bottom of sample at 35.5 feet.       Bottom of boring at 35.5 feet.       38       39   Log of Boring		5			35			///	CLAY (C	CH) - dark or	av (10YR 4	(1), stiff, mois	t hian
36     Sand; trace silt; trace cobbles; no chemical odor.       37     Bottom of sample at 35.5 feet.       Bottom of boring at 35.5 feet.       09/19/89	135	7		58-3-34				$V/\Lambda$	nlasticit	/: saturated	rootholes	10% organic	matter t
Bottom of sample at 35.5 feet. Bottom of boring at 35.5 feet. 09/19/89 GeoStrategies Inc.			**		36			Freq	eand: tr	and eilt tran	e cobblee	no chamical	ndor
Bottom of sample at 35.5 feet. Bottom of boring at 35.5 feet. 09/19/89					~}					Lie and uac			
Bottom of sample at 35.5 feet. Bottom of boring at 35.5 feet. 09/19/89 Remarks: Bernarks: CGSI GeoStrategies Inc.									<b>D</b> - +		DE E 4		
Bottom of boring at 35.5 feet. 09/19/89 Remarks: GeoStrategies Inc.					31					or sample at	33.5 TEEL.	· · · · · · · · · · · · · · · · · · ·	
Aemarks: GeoStrategies Inc. GSI GeoStrategies Inc. Cog of Boring Cog of Boring									Bottom	or boring at :	35.5 Teet.		
Aemarks: Log of Boring GSI GeoStrategies Inc.					38 [				09/19/89	}			
Remarks: GeoStrategies Inc.		·			[	]		1		· · · · ·			
Log of Boring GeoStrategies Inc.	1				39 [		· .		*				
GeoStrategies Inc.	lemarks:												
GeoStrategies Inc.											· · · · .		
GSI GeoStrategies Inc.		2						102 -4 5	ania-			······	
		Geo	Strateni	ies Inc				LOG OF E	boring		. •		909
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		oonnig.						110,000,110	7002		09/19/89	Bonn
			· :	<b>.</b>				Client:	Shell Oil Co	mpany		
			(See Plate	2)				Location:	3970 Hopya	rd Road		7 .*
								City:	Pleasanton,	California		Shee
								Logged by:	D. Ferreira	Driller:	Bayland	6
								Casing install	ation data:			1,
Drilling	method:	Hollow	-Stem Au	aer				1 .	See	Well Cons	truction Detai	I
Hole die	meter;	12-incl	nes					Top of Box E	evation:		Datum:	
		1	1	i 1			6	Water Level	1	l		1
- <del>2</del>	4 5	25	홍홍	Ê	-	_ =	25	Time	<u></u>			+
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	<u> </u>	+		4			- L.	PAVEIVI	ENT SECTIC	AN - 0.0 IEEL		
				` ' }			777		(01)			
····		1	+	2			X///		ay (CL) - ve	ry dark gray	(2.5Y N3/), s	απ, αε
				-			Y///	meaium	to nigh plas	ucity; no ch	iemical odor.	
		<u> </u>		_			X///					
		<u> </u>	+	3			XII	ang %01	vel; cobbles	at 2 feet; tr	ace sand; ox	dation
		/ 		_			X///	stains at	2.5 feet in r	potnoles.		
	150	CPL	+	4			X///					
	250	OUCH	·	_			Y///					
50	150	pusn	000.000	5				FILL - GI	avel (GP) - i	dark gray (2	2.5Y N4/), me	dium c
<u> </u>	150		<u>15H-3-10</u>					saturate	d (perched z	one); asph	alt fragments;	asph
				6			1.1	odor.				
							1//					
				7			Y					
							Y					
				8							· · · · · ·	
l					j		Y/X					
				9			Y/X					
	100	S&H					Y//A	CLAY (C	L) - very dar	k gray (5Y	3/1), medium	stiff, c
	100	push		10			$\langle / / \Lambda$	medium	plasticity; tra	ace sitt; wea	ak chemical c	dor.
50	150		ISR-3-10				$V/\Lambda$		-		. •	
				11 [			$V/\Lambda$					
				· [	1		VIA					
				12			VIA		· · · · · · · · · · · · · · · · · · ·			
				Ē			VII					
<u> </u>	<u> </u>			13 [			VIA					
			ι				VIII		· · · · · · · · · · · · · · · · · · ·		· .	
				14			VIA				······································	
	2	S&H					VII	CLAY (C	L-CH) - blac	k (2.5Y N2	), stiff, moist.	mediu
	3		·	15			Y//X	high plas	ticity: trace	silt; slightly	mottled: root	holes:
220	6		SR-3-15				Y//X	moderate	H <sub>2</sub> S odor			
	T		· · · · ·	16			Y//x			•	•	
T							Y//X				······	
	Ť			17	$\neg$		Y	·····				
				·	-		Y//X			• • • • • • • • • • • • • • • • • • • •		
			·	18			Y///	· · · · · · · · · · · · · · · · · · ·				
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						7	(///			······		
emerks; F	Boring d	rilled OC	110/80	the	inch		V //				····	
····· (	Complete		0/10/00 WI	ui 0- #⊢ ≁	0 :	ah Li-i	w-Siem A	uyers.				
			3/13/03 W	<b>4</b> (1 - 1	2-10	UN <b>M</b> 0	iuw-stem	Augers.				
		Stratani	ioe Inc				Log of B	oring				80
		-n aleyi	69 MC.									<b>~ -</b>
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LOC	ATIC	DN M	AP	lopyard	Rd.	PACI	FIC	EN	VIRC	DNMENTAL GROUP, INC. WELL / ST-1
m Los Positas Blvd.	Ta	nks. 1 <b>-</b> 1	Ser Isla	vice nds Sta Bu	ation ilding	PRO. LOGO DRILL SAMF CASII SLOT GRAY	JEC JED JNG PLINE NG 1 SIZ /EL	T NO BY: E MET G ME TYPE: ZE: 0. PACK	. 101- L HOD: THOD SHC 020 (: 12 X	-08.01 CLIENT: G-R/SHELL DATE DRILLED: 10/28/87 HSA LOCATION: Hopyard & Los Positas : CAL. MOD. HOLE DIAMETER: 8" .#40 PVC HOLE DEPTH: 14.5' WELL DEPTH: 14.5' X 20 SAND WELL DIAMETER: 3"
W COMF	/ELL PLET	10N	MOISTURE	TIP	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
		Pea Gravel	Dp Mst	120	5	$\begin{array}{c} 2 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\$			SW	CONCRETE FILL SAND FILL; gray; 5-10% fines; fine to coarse grained; 20-30% fine gravel; no product odor. @ 10'; as above; 5-10% fine gravel; strong product odor; product sheen in sample. CLAY; black; moderate plasticity; trace organics; rootlets; soft; faint product odor. BOTTOM OF BORING AT 14.5 FEET BOTTOM OF BORING AT 14.5 FEET

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LOCATION	MAP	Hopyard	Rd.	PACI	FIC	EN	VIRC	DNMENTAL GROUP, INC. WELL / ST-2
	s. ST-2 i Se Isla	rvice ands Sta Bui	) Ition Iding	PROJ LOGO DRILL SAMF CASII SLOT GRAV	IECT SED E JING PLINC NG T SIZ /EL I	r no. By: E.I Meti G Meti G Meti Ce: 0.0 Pack	101- HOD: I FHOD: SHC. 020	IPAGE 1 OF 108.01CLIENT: G-R/SHELL DATE DRILLED: 10/28/87HSALOCATION: Hopyard & Los Positas: CAL.MOD.HOLE DIAMETER: 8"#40 PVCHOLE DEPTH: 14.5' WELL DEPTH: 14.5': 20 SANDWELL DIAMETER: 3"
WELL COMPLETIC	ž Moisture Content	TIP	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
	Mst Mst Mst Mst Mst Mst Mst Mst Mst Mst	1789	7	2 - 4 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6			SC	CONCRETE & FILL CLAYEY SAND FILL; gray; 15-20% low plasticity fines; fine to coarse grained; 10-20% fine gravel; faint product odor. @ 10'; as above; faint product odor. CLAY; black mottled gray; moderate plasticity; 5-10% organics; faint hydrogen sulfide odor; rootlets; medium stiff; faint product odor. BOTTOM OF BORING AT 14.5 FEET

	L	OG		F	E)	<b>XPLO</b>	RATOK BORING
PRC	DJECT N	NUMBER	800-	-02.	.01		BORING NO. S-A
, PRC	DJECT	NAME	Gettle	er-f	Ryan	, Shell, W	Las Positas Ave. and PAGE 1 OF 1
BY	JDB	DA	TE I	1/22	2/86	нору	ard Rd., Pleasanton SURFACE ELEV. 320±
	POCKET	PENETRA	9	Ľ	S	итно-	
TORVANE	PENETRO- METER	(Blows/	ROUP	HH	AMPL	CRAPHIC COLUMN	DESCRIPTION
(TSF)	(TSF)	FW	0	<u></u>	<b>^</b>		
				- 0	-	CI CI	ASPHALT and GRAVEL - FILL.
							CLAY; very dark grayish brown (2.5Y, 3/2);
		. · ·	-				5-10% fine to coarse sand; slightly silty; stiff; very moist; no product
			F				odor.
			t				
			ŀ	-			04': dark gray (5Y, 4/1); 10-15% fine to coarse gravel: very stiff, moist.
			F	5			slight product odor.
			t				
							071, your stiff, maint to yot, no
	2.5	21	Ē.				product odor.
			Ł	10			
			-				
			Ľ.				
			-				
			ţ.				
			t				@14': wet: no product odor.
	30	24	$\mathbf{F}$	15	- <sup>2</sup>		,
			ţ				
			Ł				
			<b>-</b>				
			ļ.		1		@18½': stiff; wet; no product odor.
l	1.25	16	ŀ		3		
		1	11	-20			BOTTOM OF BORING AT 20 FEET.
REM	ARKS	Drilled	by 5	-in	ch :	solid-stem	auger; samples collected with
2-i	nch Cal h soil	ifornia cutting	n modi	fie L f	d si	plit-spoon	sampler · Borehole backfilled
		LULLING	ja u	~2 I	.,,,,,,	, concrete	Emcon
		<u> </u>		<b></b>			PLATE A

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	C	9	( E F	Cambri 5900 H Emery Feleph Fax: (5	a E ollis ville one 510	nviron s Stree , CA 9 : (510 ) 420-9	menta et, Sui 4608 1) 420 9170	al Tec te A -0700	hnology, Inc.		BO	RIN	G/WE	LL LOG			
	CLIEN		E	s	hell	Oil Pro	ducts (	Compa	inv	BORING/WELL NAME	SB-1						
	JOB/S	ITE NA	ME	37	790	Hopyar	d, Plea	isanto	ń	DRILLING STARTED       04-Oct-04         n, CA       DRILLING COMPLETED       08-Oct-04         WELL DEVELOPMENT DATE (YIELD)       NA         GROUND SURFACE ELEVATION							
	LOCA	TION		37	790	Норуал	d Roa	d, Plea	isanton, CA								
	PROJ	ECT NI	IMBEI	R <u>24</u>	<del>16-0</del>	497											
	DRILL	ER		<u>Vi</u>	roni	ex											
	DRILL	ING MI	ETHO	<u>н</u>	ydra	ulic pu	sh			TOP OF CASING ELEVATION NA							
	BORIN	BORING DIAMETER       2"         LOGGED BY       Ron Barone         REVIEWED BY       Ana Friel         REMARKS       Sample Tube Moist at 12 fbg; No Groundwater Re				·····	SCREENED INTERVAL	NA			$\nabla$						
							DEPTH TO WATER (FITS	t Encoumereu ic\	ΝΔ		Ť						
	REMA					thamed in Temporary Casir	na l eft Overnia	ht.		· · · · · · · · · · · · · · · · · · ·							
é		*****			1	·······					·····						
	(mqq) Ol9	TPHg (ppm)	BLOW	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITH	DLOGIC DESCRIPTION		CONTACT DEPTH (ft bgs	WEL	L DIAGRAM			
-					hri			5384	CONCRETE			0.7					
	99	<1.0		SB-1- 2.5		 			<u>CLAY</u> (CL); gray; stif grave!; low to medium	f; dry to moist; 75% clay, 20 n plasticity.	% silt, 5%						
	21	<1.0		SB-1- 5.0	<u> </u>	- 5 -			<u>CLAY</u> (CL); gray; sti to medium plasticity.	ff; dry to moist; 95% clay, 5'	% silt; low						
	19	2.4		SB-1- 10.5			CL		<u>CLAY</u> (CL); dark gray plasticity.	y; very stiff; dry; 100% cłay;	łow			<ul> <li>◄ Portland Type</li> <li>I/II</li> </ul>			
	9	<4.2		SB-1- 15.5					<u>CLAY</u> (CL); dark gra plasticity.	y; very sliff; moist; 100% cla	ıy; low						
PJ DEFAULT.GOT 2/1/05	147	300		SB-1- 19.5		20  			<u>CLAY</u> (CL); dark gra	y; hard; dry; 100% clay; low	r plasticity.	24.2					
SA-4/GINT/3790HO-1.GI	2									<u></u>				Bottom of Boring @ 24.2 ft			
VELL LOG (PID/TPHG) G:VPLEA	00000000000000000000000000000000000000																

	3	С 5 Е Т F	Cambri 1900 H Emeryv Telephy Tax: (5	ia E Iolli ville one 510	Environi s Stree , CA 94 2: (510 2) 420-9	menta t, Suit 4608 ) 420 170	al Tech te A -0700	nnology, inc.	BO	RIN	G/WEI	L LOG
CLIENT NAME       Shell Oil Products Company         JOB/SITE NAME       3790 Hopyard, Pleasanton         LOCATION       3790 Hopyard Road, Pleasanton, CA         PROJECT NUMBER       246-0497         DRILLER       Vironex         DRILLING METHOD       Hydraulic push         BORING DIAMETER       2"         LOGGED BY       Ron Barone         REVIEWED BY       Ana Friel         REMARKS       No Groundwater Recharge									BORING/WELL NAME       SB-2         DRILLING STARTED       04-Oct-04         DRILLING COMPLETED       08-Oct-04         WELL DEVELOPMENT DATE (YIELD)         GROUND SURFACE ELEVATION         TOP OF CASING ELEVATION         SCREENED INTERVAL       NA         DEPTH TO WATER (First Encountered DEPTH TO WATER (Static)	NA		<u> </u>
(udd) Q	ARKS (mdd) 6H	BLOW			DEPTH (ft bgs)	S S S S S S S S S S S S S	LOG	e LITF	IOLOGIC DESCRIPTION	CONTACT	WELL	DIAGRAM
Ē 99 21 12	<1.0 <1.0 <1.0	0	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			CL		CONCRETE CLAY (CL); gray; st plasticity. <u>CLAY</u> (CL); gray; st medium plasticity. <u>CLAY</u> (CL); gray; ve plasticity.	ff; dry to moist; 80% clay, 20% silt; low iff; dry-moist; 85% clay, 15% silt; low to ery stiff; dry; 100% clay; no to low	0 <u>0</u> 0.7		< Portland Type
11 1940-1.GPJ DEFAULT.GDT 21(105 5	<1.0		SB-2 15.0 SB-2 19.5 SB-2 25.0					<u>CLAY</u> (CL); gray; vi plasticity. <u>CLAY</u> (CL); gray; v plasticity. <u>CLAY</u> (CL); gray; v	ery stiff; dry; 100% clay; low to medium ery stiff; dry; 100% clay; low to medium	26.2		Bottom of Botin
WELL LOG PIDITPHG, GYPLEASA-WGINTUZ												26.2 ft

Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A **BORING/WELL LOG** Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170 SB-3 **CLIENT NAME** Shell Oil Products Company BORING/WELL NAME JOB/SITE NAME 3790 Hopyard, Pleasanton DRILLING STARTED 05-Oct-04 DRILLING COMPLETED 08-Oct-04 LOCATION 3790 Hopyard Road, Pleasanton, CA WELL DEVELOPMENT DATE (YIELD) NA **PROJECT NUMBER** 246-0497 Vironex **GROUND SURFACE ELEVATION** DRILLER DRILLING METHOD Hydraulic push TOP OF CASING ELEVATION NA SCREENED INTERVAL NA BORING DIAMETER 2" NA **Ron Barone** DEPTH TO WATER (First Encountered)\_ LOGGED BY **REVIEWED BY\_** Ana Friel DEPTH TO WATER (Static) NA REMARKS No Groundwater Recharge

(mqq) Ciq	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WEL	L DIAGRAM
682	950		SB-3-					<u>CONCRETE</u> <u>CLAY</u> (CL); gray; stiff; dry-moist; 95% clay, 5% silt; medium plasticity.	0.6		
791	270		SB-3- 5.0		- 5-			<u>CLAY</u> (CL); gray; stiff; dry-moist; 95% clay, 5% slit; medium plasticity.			
132	11		SB-3- 10.0		 - 10 	CL		<u>CLAY</u> (CL); gray; stiff; moist; 100% clay; medium plasticity.			
119	1.5		SB-3 15.5	-				<u>CLAY</u> (CL); gray; stiff; moist; 100% clay; medium plasticity.			< Portland Type I/II
2	<1.0		SB-3 19.5		 20			<u>CLAY</u> (CL); gray with some brown mottling ; stiff; moist; 100% clay; medium plasticity.	22.0		
27 37 06140	4.5		68.3			сн		<u>CLAY</u> (CL); gray with some brown mottling; stiff; moist; 100% clay; medium to high plasticity.			
18 18	4,0		25.0						_26.1		Bottom of Borin @ 26.1 ft
D/TPHG) C:/PLEA											
MELL LOG (PI											

V

Y

Cambria Environmental Technology, Inc. **BORING/WELL LOG** 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170 SB-4 BORING/WELL NAME CLIENT NAME Shell Oil Products Company JOB/SITE NAME 3790 Hopyard, Pleasanton DRILLING STARTED 04-Oct-04 DRILLING COMPLETED 08-Oct-04 LOCATION 3790 Hopyard Road, Pleasanton, CA WELL DEVELOPMENT DATE (YIELD) NA PROJECT NUMBER 246-0497 DRILLER Vironex **GROUND SURFACE ELEVATION** DRILLING METHOD Hydraulic push TOP OF CASING ELEVATION NA BORING DIAMETER\_ 2" SCREENED INTERVAL NA LOGGED BY Ron Barone **DEPTH TO WATER (First Encountered)** NA NA **REVIEWED BY** Ana Friel **DEPTH TO WATER (Static)** REMARKS No Groundwater Recharge

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELI	. DIAGRAM
353	350		SB-4- 2.5			SM		CONCRETE <u>Sility SAND</u> (SM); gray; dry; 30% silit, 70% sand; no plasticity.	0.5 4.0		
90	1.3		SB-4- 5.0		- 5			medium plasticity.			
5	1.1		SB-4- 10.0		 	CL		<u>CLAY</u> (CL); dark gray; very stiff; dry; 100% clay; no to low plasticity;			• .
	<1.0		SB-4- 15.0	-				<u>СLAY</u> (CL); dark gray; very stiff; dry; 100% clay; low plasticity;			< Portland Type  /ii
1	<1.0		SB-4 19.5		  20-			<u>CLAY</u> (CH); dark gray with some brown brown mottling; stiff; dry; 100% clay; medium to high plasticity.	17.5		
						сн					
0	<1.0		SB-4 19	-	-			CLAY (CH); brownish gray; stiff; dry; 100% clay; medium to high plasticity.	26.2		Bottom of Borin @ 26.2 ft
									******		BACE I OF

Campria Environmentar Lechnology, Inc. 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

IDR/SITE NAME 3790 Hopvard, Pleasanton DRILLING STARTED 04-06-04	
DCATION 3790 Hopvard Road, Pleasanton, CA DRILLING COMPLETED 08-Oct-04	
PROJECT NUMBER 246-0497 WELL DEVELOPMENT DATE (YIELD) NA	
DRILLER Vironex GROUND SURFACE ELEVATION	
DRILLING METHOD Hydraulic push TOP OF CASING ELEVATION NA	
BORING DIAMETER 2" SCREENED INTERVAL NA	
LOGGED BY Ron Barone DEPTH TO WATER (First Encountered) NA	<u> </u>
REVIEWED BY Ana Friel DEPTH TO WATER (Static) 14.7 ft (08-Oct-04)	<u>_</u>

BORING/WELL LUG

REMARKS

PID (ppm)	TPHg (ppm)	BLOW	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM	
4	<1.0		SB-5- 2.5			ML		CONCRETE <u>Silty SAND</u> (ML); brown; dry-moist; 5% clay, 30% silt, 60% sand, 5% gravel; no to low plasticity.	-0,3 4.0		
57	1.0		SB-5- 5.0		- 5			<u>CLAY</u> (CL); gray; dry to molst; 70% clay, 25% silt, 5% sand; medium plasticity.			
14	1.6		SB-5 9.5	-	- 10-			CLAY (CL); dark gray; stiff; dry; 100% clay; low to medium plasticity.	12.0		2
46	80		SB-5 15.0					<u>CLAY</u> (CH); dark gray; stilf; moist; 100% clay; medium to high plasticity.	¥	✓ Portland Ty I/II	/pe
-401,1,601 21,005	6.1		SB-5 19.5	5-	- 20 -	- сн		<u>CLAY</u> (CH); dark gray; stiff, dry to moist; 100% clay; medium to high plasticity.			
EASA-4/GINT/3790HO-1.GP.J DEF			SB-5 25.0	5-5	- 			<u>CLAY</u> (CH); brown; very stiff.	27.9	Bottom of E @ 27.8 ft	3orin
WELL LOG (PID/TPHG) GAPL										PAGE	1 01

Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

REMARKS

WELL LOG (PID/TPHG) GAPLEASA-4/GINT/3790HO-1.GPJ DEFAULT.GDT 2/1/05

BO	<b>RING</b> /	WELL	LOG

WELL DIAGRAM

Portland Type

ME

CLIENT NAME	Shell Oil Products Company	BORING/WELL NAME SB-7	
JOB/SITE NAME	3790 Hopyard, Pleasanton	DRILLING STARTED 05-Oct-04	-
LOCATION	3790 Hopyard Road, Pleasanton, CA	DRILLING COMPLETED 08-Oct-04	-
PROJECT NUMBER	246-0497	WELL DEVELOPMENT DATE (YIELD) NA	
DRILLER	Vironex	GROUND SURFACE ELEVATION	
DRILLING METHOD	Hydraulic push	TOP OF CASING ELEVATION NA	
BORING DIAMETER	2"	SCREENED INTERVAL NA	_
	Ron Barone	DEPTH TO WATER (First Encountered) NA	7
REVIEWED BY	Ana Friel	DEPTH TO WATER (Static) 22.3 ft (08-Oct-04)	-

CONTACT DEPTH (ft bgs) SAMPLE ID GRAPHIC LOG PID (ppm) TPHg (ppm) BLOW EXTENT DEPTH (ft bgs) U.S.C.S. LITHOLOGIC DESCRIPTION CONCRETE CLAY (CH); gray; stiff; dry; 95% clay, 5% silt; medium plasiticy. 0.6 SB-7-2.5 7 <1.0 CH 5 7 <1.0 SB-7 5.0 7.5 CLAY (CL); gray; very stiff; dry; 100% clay; non to low plasticy. 2.8 SB-7-10 10.0 15 <u>CLAY</u> (CL); dark gray; very stiff; dry; 100% clay; low plasticity. SB-7-11 15.0 CL . . . SB-7-135 15 CLAY (CL); dark gray; very stiff; dry; 100% clay; low to 20 19.5 medium plasticity. 77 7 52 25 <u>CLAY</u> (CL); dark gray; very stiff; dry; 100% clay; low to medium plasticity. SB-7-1.7 3.8 25.0 28.0

PAGE 1 OF

**Bottom of Boring** @ 27.9 ft TEST

Ç	9	C 5 E T F	Cambri 900 H Meryv Telepho Tax: (5	a E olli: /ille one 510	nviron s Stree , CA 9 : (510 ) 420-9	menta it, Suit 4608 ) 420- ) 170	II Tech te A •0700	nology, Inc.		BOI	RIN	G/WE	LL LOG
CLIEN		E	St	nell	Oil Proc	ducts (	Compar	۱ <b>۷</b>	BORING/WELL NAME	SB-8		<b>.</b>	
JOB/S	ITE NA	ME	37	790	Hopyar	d, Plea	santor	)	DRILLING STARTED	08-Oct-04			······································
LOCA	NON		37	790	Hopyar	d Road	l, Plea	santon, CA	DRILLING COMPLETED	08-Oct-04			
PROJ	ECT NU	IMBER	₹ <u>24</u>	<b>16-0</b>	497				WELL DEVELOPMENT D	DATE (YIELD)	NA		
DRILL	ER		V	ron	ex				GROUND SURFACE ELE	EVATION _			
DRILL	ing mi	ETHOE	) <u> </u>	and	Auger				TOP OF CASING ELEVA				
BORIN	ig dia	METER	र <u>4</u>					, 	SCREENED INTERVAL	NA • Encountorod			$\overline{\nabla}$
LOGG	ED BY	.v	R		Sarone				DEPTH TO WATER (Fils	ic)	NA		<u> </u>
REVIE	REVIEWED BT Ana Friel REMARKS Due to Rio Access Difficulties. Boring Was E					tion Baring Mac Extends	DEPTH TO WATER (due	sal of Hand Au	der at 1	0 fba.			
KEMA	KV2		<u> </u>		<u>o rig a</u>	ccess	Dinicul	LIES, DOTING YVAS EXTENDE	COMPANY NAME AND ADDRESS IN COMPANY	2001 01 1101 101 710		<u> </u>	
PID (ppm)	TPHg (ppm)	BLOW	SAMPLE (D	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITH	OLOGIC DESCRIPTION		CONTACT CONTACT	WEL	L DIAGRAM
								TOPSO!Lbrownish g medium plasticity.	ray; 90% clay, 10% sand; k	ow to	3.3		
0	<1.0		SB-8- 5.0			CL		<u>CLAY</u> (CL); brownist medium plas <b>ticity</b> .	n gray; very stiff; dry; 100%	ciay; iow to	-		< Portiand Type //I
5.4	<1.0		SB-8- 10.0		 			<u>CLAY</u> (CL); brownisi — <u>medium plasticity.</u>	h gray; very stiff; dry; 100%	ciay; low to	_11.0		Bottom of Borin @ 11 ft
			S.						n an gran dhan An dhan An dhan				
(1)3730HO-1,GPJ DEFAULI,GUI ZIVIO													
WELL LOG (PID/TPHG) GIPLEASA-4/GIN													

5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170 BORING/WELL NAME SB-9 Shell Oil Products Company CLIENT NAME 05-Oct-04 DRILLING STARTED 3790 Hopyard, Pleasanton JOB/SITE NAME DRILLING COMPLETED 07-Oct-04 3790 Hopyard Road, Pleasanton, CA LOCATION WELL DEVELOPMENT DATE (YIELD) NA 246-0497 PROJECT NUMBER **GROUND SURFACE ELEVATION** Vironex DRILLER TOP OF CASING ELEVATION NA Hydraulic push DRILLING METHOD SCREENED INTERVAL NA BORING DIAMETER 2" Ā DEPTH TO WATER (First Encountered)\_ 23.0 ft (07-Oct-04) Ron Barone LOGGED BY Ţ 15.9 ft (07-Oct-04) DEPTH TO WATER (Static) REVIEWED BY\_ Ana Friel

BUKING/WELL LUG

Cambria Environmental Technology, Inc.

REMARKS

PID (ppm)	TPHg (ppm)	BLOW	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG		1012100	CONTACT DEPTH (ft bgs)	WELL	DIAGRAM
							XXXX	CONCRETE Fill gravels with silt matrix		).6  .0		
1.6	<1.0		SB-9- 2.5					CLAY with gravel(CL); brownish gray; stiff; dry to moist; 80% clay, 5% silt, 15% gravel; low to medium plasticity.				
1.7	<1.0		SB-9- 5,0		- 5 -			<u>CLAY</u> (CL); gray; stiff; dry to moist; 95% clay, 5% silt; medium plasticity.				
					-							
14	<4.7		SB-9- 10.0			CL		<u>CLAY</u> (CL); gray; stiff; dry to moist; 100% clay; low plasticity.				< Portland Type ∦II
36	96		SB-9	-				<u>CLAY</u> (CL); gray; stiff; dry to moist; 100% clay; low	¥	•		
9			15.5		-			plasticity,				
ULT.GDT 2110	<4.1		SB-9		20-			<u>CLAY</u> (CL); gray; stiff; moist; 100% clay; medium plasticity.				
-1.GPJ DEFA				-		-			⊉	24.0		Bottom of Borin @ 24 ft
AGINTA790HD												
Gipleasa-4												
OHALIA DO									ı			
MELL U												PAGE T O

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## **BORING/WELL LOG**

CLIENT NAME	Shell Oil Products Company	BORING/WELL NAME SB-11
JOB/SITE NAME	3790 Hopyard, Pleasanton	DRILLING STARTED
LOCATION	3790 Hopyard Road, Pleasanton, CA	DRILLING COMPLETED 07-Oct-04
PROJECT NUMBER	246-0497	WELL DEVELOPMENT DATE (YIELD) NA
DRILLER	Vironex	GROUND SURFACE ELEVATION
DRILLING METHOD	Hydraulic push	TOP OF CASING ELEVATION NA
BORING DIAMETER_	2"	SCREENED INTERVAL NA
LOGGED BY	Ron Barone	DEPTH TO WATER (First Encountered) NA
REVIEWED BY	Ana Friel	DEPTH TO WATER (Static)
REMARKS	No Groundwater Recharge	

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ît bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL	DIAGRAM
								CONCRETE Sandy SILT(ML); gray; dry; 65% silt, 30% sand, 5%	0.6		
	<10		SB-11			ML		gravels; no plasticity.			
	1.0		-2.5					CLAY (CL); gray; stiff; dry to moist; 85% clay, 10% sand;	4.0		
276	220		SB-11 -5.0	1	- 5 -			5% gravel; low to medium plasticity.			
7.9						ļ					
8	<1.0		SB-11		-10-			CLAY (CL); gray; stiff; dry; 95% clay, 5% silt; low plasticity.			
				┝							м .
-											Portland Type
37	<50.0		SB-1	;	-15-	G		CLAY (CL); gray; stiff; dry; 100% clay; low plasticity.			VII
			-15.5		<u>-</u> .						· · ·
3						1					
116	2.6		SB-1	1	-20-			<u>CLAY</u> (CL); dark gray; stiff; dry; 100% clay; low plasticity.			
			-20.0	1	Ę.						
10											
5 103	3.2		SB-1	1	25	1		<u>CLAY</u> (CL); dark gray; stiff; dry; 100% clay; low to medium			
			-20.0	Ί	F	]		разныў.			
				+	+	╄			-28.1		Bottom of Boring @ 28.1 ft
GUPLE											
CHHO!											
100											
MEIL		<u> </u>									PAGE 1 OF

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# **BORING/WELL LOG**

CLIENT NAME	Shell Oil Products Company	BORING/WELL NAME	SB-12	· · · · · · · · · · · · · · · · · · ·	
JOB/SITE NAME	3790 Hopyard, Pleasanton	DRILLING STARTED	06-Oct-04		
	3790 Hopyard Road, Pleasanton, CA	DRILLING COMPLETED	06-Oct-04		
PROJECT NUMBER	246-0497	WELL DEVELOPMENT D	ATE (YIELD) N	1A	
DRILLER	Vironex	GROUND SURFACE ELE	VATION		
DRILLING METHOD	Hydraulic push	TOP OF CASING ELEVAT	TON NA		
BORING DIAMETER	2"	SCREENED INTERVAL	NA		
LOGGED BY	Ron Barone	DEPTH TO WATER (First	Encountered)_	NA	<u> </u>
REVIEWED BY	Ana Friel	DEPTH TO WATER (Stati	c) _	23.0 ft (06-Oct-04)	

REMARKS

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 DI	AGRAM
				1				CONCRETE	0.6		
0	<1.0		5B-12 -2.5			GC		GRAVEL with Sand Sandy GRAVEL with ClayGC); brownish gray; loose; dry; 15% clay, 35% sand, 50% gravel, no plasticity.	4.0		
1.4	<1.0		SB-12 -5.0	2	- 5 -			<u>CLAY</u> (CL); gray; stiff; dry; 95% clay, 5% gravels; medium plasticity.			
11	<1.0		SB-12 -10.0	2				<u>CLAY</u> (CL); gray; very stiff; dry; 100% clay; no to low plasticity.			ortland Type
89	<5.0		SB-1 -15,0	2	   	CL		<u>CLAY</u> (CL); gray; very stiff; dry; 100% clay; no to low plasticity.			11
266	430		SB-1 -20.0	2 0	- 20- - -			<u>CLAY</u> (CL); gray; very stiff; dry; 100% clay; medium plasticity.	¥		
21	<4,7	·	SB-1 -24.	2 5	25			<u>CLAY</u> (CL); gray; very stiff; dry; 100% day; medium plasticity.			
110	280		SB-1 -26.	12		+		CLAY (CL); gray; very stiff; dry; 100% ctay; medium plasticity.	27.0	B	ottorn of Borin § 27 ft
VELL LOG (FID/TPHG) GAPLEASA-4				-							

C	9	C 5 E T F	ambri 900 H meryv elepho ax; (5	a E olli: /ille one 510	nviron s Stree , CA 9 : (510 ) 420-9	menta t, Sui 4608 ) 420- ) 170	al Tech te A -0700	nnology, Inc.		BOF	RIN	G/WE	LL LOG			
CLIEN JOB/S LOCA PROJ	IT NAM ITE NA TION ECT NI	E ME JMBER	Sł 37 37	nell 790 790	Oil Proc Hopyar Hopyar 1497	ducts ( d, Plea d Roa	Compai asantor d, Pleas	ny Santon, CA	BORING/WELL NAME SB-13 DRILLING STARTED 05-Oct-04 DRILLING COMPLETED 07-Oct-04 WELL DEVELOPMENT DATE (YIELD) NA							
DRILL	ER		Vi	ron	ex				GROUND SURFACE ELE				·······			
DRILL	JNG M	ETHOD	<u></u>	ydra	ulic pu	sh			TOP OF CASING ELEVA	TION NA		••• <u>•</u> •				
BORI	NG DIA	METER	۲ <u>2</u> "	, 					SCREENED INTERVAL	NA	NA		$\nabla$			
REVIE	REVIEWED BY Ana Friel								DEPTH TO WATER (Fils	ic)	18.	1 ft (07-Oct	-04)			
REMA	RKS		T	emp	ooray W	ell Ca	sing Le	ft Open Overnight For G	roundwater Recharge							
PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITH	OLOGIC DESCRIPTION	****	CONTACT EPTH (ft bgs)	WEL	L DIAGRAM			
2 27 27 17 298 101 201 31/00 201 31/	<u>4</u> <1.0 <1.0 3.6 2.7 <1.0		SB-13 -3.0 SB-13 -5.0 SB-13 -10.0 SB-13 -15.0 SB-13 -20.0			CL		CONCRETE CLAY (CL); browniss medium plasticity. CLAY (CL); gray; st plasticity. CLAY (CL); dark gra plasticity. CLAY (CL); dark gra plasticity.	h gray; stiff; dry; 90% clay, 1 iff; 95% clay, 5% gravels; m iy; very stiff; dry; 100% clay; iy; very stiff; dry; 100% clay;	0% silt; edium low low	<u>Х</u> 0.6 24.0		< Portland Type I/II Bottom of Borin @ 24 ft			
WELL LOG (PIDITPHG) CIPLEASA-										-						



CLIENT NAME

LOCATION

DRILLER

JOB/SITE NAME

PROJECT NUMBER

DRILLING METHOD

BORING DIAMETER\_

Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

Shell Oil Products Company

3790 Hopyard Road, Pleasanton, CA

3790 Hopyard, Pleasanton

246-0497

Vironex

2"

Hydraulic push

**Ron Barone** 

Ana Friel

# **BORING/WELL LOG**

BORING/WELL NAME	SB-14		
DRILLING STARTED	05-Oct-04		
DRILLING COMPLETED	07-Oct-04		,
WELL DEVELOPMENT D	ATE (YIELD) N	IA	
GROUND SURFACE ELE	VATION		
TOP OF CASING ELEVAT	TON NA		
SCREENED INTERVAL	NA		
DEPTH TO WATER (First	Encountered)_	NA	<u> </u>
DEPTH TO WATER (Stati	c) _	NA	<u> </u>

REMARKS

LOGGED BY

**REVIEWED BY** 

No Groundwater Recharge

(mqq) CI9	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL	DIAGRAM
4) 014 2 21 113 144 144	s) 6H4L <1.0 <1.0 1.9 8.2 <50	SUDO BLOO	SB-14 -2.5 SB-14 -5.0 SB-14 -10.0 SB-11 -10.0 SB-11 -15.0 SB-11 -15.0 SB-11 -15.0		da da da da da da da da da da	C.C.	GRAP CRAP	CONCRETE         CLAY (CL); brown; 70% clay, 20%slit, 5% sand, 5% gravel; medium plasticity.         CLAY with gravel(CL); gray; stiff; dry; 90% clay, 10% gravel; medium plasticity.         CLAY (CL); gray; very stiff; dry to moist; 100% clay; no to low plasticity.         CLAY (CL); gray; very stiff; dry to moist; 100% clay; no to low plasticity.         CLAY (CL); gray; very stiff; dry to moist; 100% clay; no to low plasticity.         CLAY (CL); gray; very stiff; dry to moist; 100% clay; no to low plasticity.         CLAY (CL); gray; very stiff; dry to moist; 100% clay; no to medium plasticity.         CLAY (CL); gray; very stiff; dry to moist; 100% clay; no to low plasticity.         CLAY (CL); gray; very stiff; dry to moist; 100% clay; no to medium plasticity.         CLAY (CL); gray; very stiff; dry to moist; 100% clay; low to medium plasticity.         Light Green Staining	9.0 DEPTH		Portland Type
NELL LOG (PID/TPHG) G:PLEASA-4/GINTG790HO-1.GP	2.3		SB-1 -25.	14	25-	  		Light Green Staining <u>CLAY</u> (CL); gray; very stiff; dry to moist; 100% clay; medium to high plasticity.	25.0		Bottom of Borin @ 26.5 ft PAGE 1 0

Ç	9	U 5 E T F	ambri 900 H meryv elepho ax: (5	a E ollis ville one (10)	nviron s Stree , CA 9 ; (510 ) 420-\$	menta et, Suit 4608 )) 420- 9170	u iech e A 0700	nology, Inc.		ROP	KIN	S/VV⊨	LL LUG
CLIEN	T NAM	E	St	nell (	Oil Pro	ducts (	compan	Υ	BORING/WELL NAME	SB-15			
JOB/S	ITE NA	ME	37	<b>'90</b>	Hopyar	d, Plea	santon		DRILLING STARTED	05-Oct-04			
LOCATION 3790 Hopyard Road, Pleasanton, CA									DRILLING COMPLETED	07-Oct-04	·		
PROJECT NUMBER 246-0497									WELL DEVELOPMENT	DATE (YIELD)	NA	<u> </u>	
DRILL	ER		<u></u>	rone	ex				GROUND SURFACE ELE				
DRILL	ing Mi	ETHOD	<u>н</u>	<u>ydra</u>	ulic pu	sh			TOP OF CASING ELEVA	TION NA			
BORIN	ig dia	METER	۲ <u>2</u> "					·	SCREENED INTERVAL	<u>NA</u>			$\overline{\nabla}$
LOGG	ED BY		Re	on E	Barone				DEPTH TO WATER (Firs	t Encountered)	<u>NA</u>		<u>*</u>
REVIE	WED E	sγ	<u></u>	na F	riel				DEPTH TO WATER (Stat	ac)			<u>+</u>
REMA	RKS	ų <u></u>	N	o Gi	roundw	ater Re	charge	2					
PiD (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITH	IOLOGIC DESCRIPTION		CONTACT DEPTH (ft bgs)	WELI	_ DIAGRAM
							STERE	CONCRETE			0.5		
						_SW_		SAND with gravel(	SW); brown.	N: 75%	1.0		
5 172	<1.0 5.9	•	SB-15 -2.5 SB-15 -5.0		  - 5 -	CL		<u>CLAY with grave</u> (( clay, 5% silt, 20% gr <u>CLAY with grave</u> (( clay, 45% grave); no	CL); brownish gray; loose; di ravel; low plasticity. CL); brownish gray; loose; di o plasticity.	ry; 75% ry; 55%	8.0		
					F -	<b> </b>		NO RECOVERY					
				þ	 10	• • •					12.0		-
120	1.2		SB-15 -15.0	5				<u>CLAT</u> (CL); dark gr plasticity.	ay, very sun, dry, r00 ‰ ciay,	, 1007			≪ Portland Type  /ii
260 221/10	470		SB-11 20.0	5				<u>CLAY</u> (CL); dark gr to medium plasticity	ay; very stiff; dry; 95% clay, /.	5% silt; low			
GPJ	1			$\vdash$	+ -	-	V///	Grey and red staini	ng				
	<3.1		SB-1 -25.0	5	25	 		CLAY (CL); dark gr to medium plasticit	ay; very stiff, dry; 95% clay, y	5% silt; low	26.4		Bottom of Borir @ 26.4 ft
WELL LOG (PID/TPHG) G:PLEASA-410													PAGE 1 O





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### APPENDIX C

#### WELL SURVEY TABLE

CAMBRIA

<b></b>		······································			Depth	Screened	Sealed
Number	Well ID	Installation Date	Location	Use	(ft bgs)	Interval (ft bgs)	Interval (ft bgs)
<u></u>							
			On NW corner of Hopyard				
			Rd. and Pleasanton Canal			96-104, 108-122, 140-	
1	3S/1E-7R2	Sept. 1943	intersection	UNK	205.0	148, 167-184	UNK
			On SW corner of Hopyard			i.	
			Rd. and Pleasanton Canal			95-103, 106-120, 139-	
2	3S/1E-71	Aug. 10, 1949	intersection	UNK	205.0	147, 166-183	UNK
						Formerly	
, i			0.4 mi from Hopyard Rd.	DEST		143-158, 192-208, 240	
3	3S/1E-7R1	March 10, 1962	along Arroyo Mocho	IRR	324.0	309	DEST
4	28/1E 701	unknown		ABD	172.0		
	- 35/1E-7Q1	unknown			11210	215 225 275 205 255	
		•		NODI		215-255, 275-505, 555	
5	3S/1E-18A6	February 1943	Parkside and Hopyard Rd.	MUN		575, 400-490 Formarly	
				DEST		FUILIEITY	
		0 1 10/2	Devlocide and Henvard Pd	DESI		101-114, 134-100, 180	DEST
6	3S/IE-18AL	Uctober 1943	rarkside and riopyard Ru.	INIOIN		177	

Table 1. Well Survey Results - Shell-branded Service Station, 3790 Hopyard Road, Pleasanton, California. Incident # 98995842

#### **Notes and Abbreviations:**

Number = Column number refers to map location on Figure 2.

Well ID = California State well identification number as recorded by the Department of Water Resources in Sacramento, California.

UNK = Unknown.

IRR = Irrigation

DEST= Destroyed

ABD = Abandoned

MUN = Municipal

3790hopyardWell Survey Table.xls

### APPENDIX D

#### REMEDIATION DATA TABLES

#### TABLE 1

Groundwater Extraction - System Analytical Results Shell-branded Service Station, Incident #98995842 3790 Honward Road, Pleasanton, California

3/90 Hopyard Road, Plea	santon, California
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						an Sheer are											
		INFL	UENT			MID-1					MIC	)-2		EFFLUENT			
Sample	TPH-G	TPH-D	Benzene	MTBE	TBA	TPH-G	TPH-D	Benzene	MTBE	TPH-G	TPH-D	Benzene	MTBE	TPH-G	TPH-D	Benzene	MTBE
Date	Conc.	Conc.	Conc	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc	Conc.
(mm/dd/yy)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
07/01/03	<2 500	810 1	<25	3 400	NA	<50		<0.50	<0.50	<50		<0.50	<0.50	<50	200 1	<0.50	<0.50
07/21/03	<2,000	67 1	<25	5 400	NA	<500	—	<5.0	160	<250		<2.5	<2.5	<50	<50	<0.50	<0.50
08/01/03	<1 300	57 <sup>1</sup>	<13	3 700	NA	<250		<2.5	190	54 <sup>2</sup>		<0.50	<0.50	<50	<50	<0.50	<0.50
08/15/03	<1,000	470 1	<10	2 200	NA	<250		<2.5	380	<100		<1.0	<1.0	<50	76 <sup>1</sup>	<0.50	<0.50
00/10/03	21 000	<50	<10	2,200	NA	<50		<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
09/11/03	<1 000	NA	<10	2 600	NA	<250		<2.5	<25	<250		<2.5	<25	<50	NA	<0.50	<5.0
10/10/03	<5 000	67 <sup>1</sup>	<50	1,800	NA	<100		<1.0	85	<100		<10	<10	<100	<10	<1.0	<10
10/24/03	<500	NA	<5.0	1.500	NA	<500		<5.0	75	<500	<u></u>	<5.0	<5.0	<500	NA	<5.0	<5.0
11/21/03	<1 000	<50 3	<10	1.300	NA	<250		<2.5	25	<250		<2.5	<2.5	<50	<50 <sup>3</sup>	<0.50	<0.50
12/05/03	<1 000	<50	<10	1.200	NA	<250		<2.5	110	<50	<b></b> ,	<0.50	<5.0	<50	<50	<0.50	<5.0
12/10/03	<1,000	NA	<10	950	NA	<250	· _	<2.5	150	<50		<0.50	<5.0	<50	NA	<0.50	<5.0
01/16/04	<50	220 7	<0.50	57	NA	<50		<0.50	<5.0	<50	_	<0.50	<5.0	<50	<50	<0.50	<5.0
01/30/04	<500	NA	<5.0	460	NA	<50		<0.50	<5.0	<50	_	<0.50	<5.0	<50	NA	<0.50	<5.0
02/06/04	<500	56 1	<5.0	350	NA	<50		<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
02/05/04	<500	<50	<5.0	370	NA	<50		<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
04/02/04	<1 000	230	<10	200	NA	<50	· .	< 0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
05/14/04	<1,000	<50	<10	110	NA	<50		<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
06/04/04	<1 000	<50	<10	<100	NA	<50	'	<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
07/16/04	<1 000	<50	<10	<100	NA	<50		<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
08/06/04	<1 000	<50	<10	<100	NA	<50		<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
09/03/04	<1 000	<50	<10	<100	NA	75	4 _	<0.50	9.0	170 '	4	<0.50	<5.0	57	<50	<0.50	<5.0
10/08/04	<50	<50	<0.50	29	NA	<50		<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
11/05/04	<50	110	1 <0.50	5.2	NA	<50		<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
12/03/04	<250	<50	<2.5	<25	NA	<50		<0.50	<5.0	<50	<u>.</u>	<0.50	<5.0	<50	<50	<0.50	<5.0
01/07/05	150	170	1 0.95	18	NA	<50	·	<0.50	<5.0	<50		<0.50	<5.0	<50	<50	<0.50	<5.0
07/28/05	100	560	<0.50	<0.50	NA	57	<210	<0.50	<5.0	<50	<50	<0.50	<0.50	<50	54	<0.50	<5.0
02/20/05	<50	<50	<0.50	<0.50	NA	<50	<50	<0.50	<5.0	<50	<50	<0.50	<0.50	<50	<50	<0.50	<5.0

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**Groundwater Extraction - System Analytical Results** 

Shell-branded Service Station, Incident #98995842

3790 Hopyard Road, Pleasanton, California

									,				<u> </u>				<u>ar i transmer</u>
		INFL	UENT		-		MI	D-1			MI	0-2			EFF	LUENT	
Sample	TPH-G	TPH-D	Benzene	MTBE	TBA	TPH-G	TPH-D	Benzene	MTBE	TPH-G	TPH-D	Benzene	MTBE	TPH-G	TPH-D	Benzene	MTBE
Date	Conc.	Conc.	Conc	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc	Conc.
(mm/dd/vv)	(dag)	(daa)	(dag)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
04/08/05	120	490	20	310	NA	<50	<50	<0.50	<5.0	<50	<50	<0.50	<0.50	<50	<50	<0.50	<5.0
04/27/05	<50	<50	<0.50	31	760	<50	<50	<0.50	<5.0	<50	<50	<0.50	<0.50	<50	<50	<0.50	<5.0
05/11/05	<50	<50	<0.50	28	1800	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
06/03/05	<50	<50	<0.50	12	30	92	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
07/01/05	<50	<50	<0.50	11	NA	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
07/29/05	<50	<50	<0.50	10	NA	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
8/5/20055	<50	<50	<0.50	6.6	1400 <sup>6</sup>	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
09/01/05	<50	<50	< 0.50	4.9	880	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
10/07/05	<50	<50	<0.50	4.2	1200	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
11/04/05	<50	70	<0.50	2.9	180	<50	<50	<0.50	0.54	<50	<50	<0.50	<0.5	<50	<50	<0.50	<0.50
12/13/05	230	61	2.1	3.0	700	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
01/06/06	<50	<50	1.1	3.7	460	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
02/02/06	<50	130	1.1	5.6	590	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
03/03/06	55	<50	0.6	2.9	510	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50
04/10/06	<50	<417	<0.50	6,90	483	<50	<417	<0.50	<0.50	<50	<417	<0.50	<0.50	<50	<417	<0.50	<0.50
05/04/06	53	<50	1.7	25	310	<50	<50	<0.50	1.3	<50	<50	<0.50	<0.50	<50	<50	<0.50	<0.50

#### Abbreviations & Notes:

TPH-G/D = Total purgeable hydrocarbons as gasoline/diesel

MTBE = Methyl tert-butyl ether

ppb = parts per billion

TPH-G, benzene and MTBE analyzed by EPA Method 8260

TPH-D analyzed by EPA Method 8015M.

Discharge Limits: TPH-G & TPH-D = 15.0 mg/L, BTEX = 1.00 mg/L, MTBE = not applicable

"--" - No Data Provided

NA = Not analyzed

1 = Hydrocarbon reported does not match the laboratory standard diesel pattern

2 = Hydrocarbon reported as gasoline does not match the laboratory gasoline standard

3 = The initial analysis failed QA/QC. A second analysis was conducted outside of hold time for which QA/QC passed. Both analyses reported similar results (<50ppb).

4 = The sample contains discrete peaks in the gasoline range.

5 = Influent samples were extracted out of hold time due to re-analysis. Initial analysis used higher reporting limits than required.

System Analytical

# TABLE 1Groundwater Extraction - System Analytical ResultsShell-branded Service Station, Incident #989958423790 Hopyard Road, Pleasanton, California

		en en en en en en en en en en en en en e															
		INFI	IIFNT			Ι	MI	D-1			MI	D-2			EFF	LUENT	
Sample	TPH-G	TPH-D	Benzene	MTBE	TBA	TPH-G	TPH-D	Benzene	MTBE	TPH-G	TPH-D	Benzene	MTBE	TPH-G	TPH-D	Benzene	MTBE
Date	Conc.	Conc.	Conc	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc	Conc.
(mm/dd/vv)	(dad)	(dad)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
6 =Estimated	Value. T	he conce	entration exc	eeded ca	libration of	analysis.				1							

SJ37-90H-1.2006

System Analytical

#### Groundwater Extraction - Mass Removal Data Shell-branded Service Station, Incident #98995842 3790 Hopyard Road, Pleasanton, California

a new grade to the summaries				and the second second second second second second second second second second second second second second second								palan ang sana sa sa sa sa sa sa sa sa sa sa sa sa sa		
<u> </u>	r						TPH-G			Benzene			MIBE	
Site	Flow Motor	Period	Flow	Flow	Cumulative	TPH-G	Period	Cumulative	Benzene	Period	Cumulative	MTBE	Period	Cumulative
Visit	Positing	Volume	Rate	Rate	Volume	Conc.	Removal	Removal	Conc.	Removal	Removal	Conc.	Removal	Removal
visit (com/dd/au)	(cal)	(nal)	(0000)	(apd)	(gal)	(dqq)	(pounds)	(pounds)	(ppb)	(pounds)	(pounds)	(ppb)	(pounds)	(pounds)
(minuaryy)	(gen)	(gui)	(32.0)	<u></u>	0	<2 500	0.000	0.000	<25	0.000	0.000	3,400	0.000	0.000
07/01/03	447	0	2 60	= 100	103 633	<2,500	1 081	1.081	<25	0.011	0.011	5,400	4.670	4.670
07/21/03	104,080	103,633	3,60	0,104	150,000	<1 300	0.289	1 370	<13	0.003	0.014	3,700	1,643	6.313
08/01/03	157,301	53,221	3.30	4,030	100,004	<1,000	0.063	1 433	<10	0.001	0.014	2,200	0.277	6.590
08/15/03	172,392	15,091	0.75	1,070	221 200	-1,000 NG	0.000	1 639	NS	0.002	0.016	NS	0.908	7,498
08/29/03	221,836	49,444	2.45	3,53∠	221,309	<1 000	0.200	1 910	<10	0.003	0,019	2,400	1.301	8.798
09/11/03	286,780	64,944	3.47	4,990	200,000	<1,000	0.275	2 185	<10	0.003	0.022	2,600	1,431	10,229
09/25/03	352,750	65,970	3.27	4,/12	352,303	<1,000	1 408	3 593	<50	0.014	0.036	1,800	1.014	11.243
10/10/03	420,240	67,490	3.12	4,499	419,793	~5,000	0.007	3 600	<50	0.000	0.036	1,500	0.040	11.283
10/24/03	423,410	3,170	0.16	226	422,963	<500 NG	0.007	3 790	NS	0.002	0.038	NS	1.142	12.425
11/12/03	514,680	91,270	3.34	4,804	514,233	NO 41.000	0.150	3 964	<10	0.002	0.040	1,300	0.452	12.877
11/21/03	556,306	41,626	3.21	4,625	555,859	<1,000	0.174	1 225	<10	0.003	0.042	1,200	0.627	13.503
12/05/03	618,906	62,600	3.11	4,4/1	618,459	<1,000	0.201	4.220	<10	0.003	0.045	950	0,491	13,994
12/19/03	680,821	61,915	3.07	4,423	680,374	<1,000	0.236	4,400	NS	0.003	0.048	NS	0.512	14.507
01/06/04	745,460	64,639	2.49	3,591	745,013	NS	0.270	4,733	<0.50	0.000	0.048	57	0.018	14,525
01/16/04	784,010	38,550	2.68	3,855	783,563	<50	0.008	4.701	<0.50	0.000	0.040	460	0.248	14,773
01/30/04	848,580	64,570	3,20	4,612	848,133	<500	0.135	4.090	<5.0	0.001	0.050	350	0.091	14,863
02/06/04	879,575	30,995	3.07	4,428	879,128	<500	0.065	4,950	< 5.U	0.001	0.050	NS	0 145	15,009
02/20/04	929,280	49,705	2.47	3,550	928,833	NS	0.104	5.064	NS ICO	0.001	0.057	370	0.137	15 146
03/05/04	973,690	44,410	2,20	3,172	973,243	<500	0.093	5,15/	<5.0	0,001	0.052	NC	0.106	15 252
03/19/04	1.008.001	34,311	1.70	2,451	1,007,554	NS	0.072	5.228	NS	0.001	0.052	100	0.037	15 289
04/02/04	1.030,183	22,182	1.10	1,584	1,029,736	<1,000	0.093	5.321	<10	0.001	0.053	200	0.037	15 325
04/16/04	1 052 225	22,042	1.09	1,574	1,051,778	NS	0.092	5.413	NS	0,001	0.054	NO	0.057	15 382
04/30/04	1 085 954	33 729	1.67	2,409	1,085,507	NS	0.141	5.553	NS	0.001	0.050	INS IIIS	0.030	15 / 12
06/14/04	1 118 933	32 979	1.64	2,356	1,118,486	<1,000	0,138	5,691	<10	0.001	0.057	110	0,030	15.412
05/24/04	1 142 083	23 150	1.61	2,315	1,141,636	NS	0.097	5,788	NS	0.001	0.058	NS	0.021	15,433
05/24/04	1 168 145	26,062	1.65	2.369	1,167,698	<1,000	0.109	5.896	<10	0.001	0.059	<100	0.011	15.444
00/04/04	1 200 000	32 764	1.63	2,340	1,200,462	NS	0.137	6,033	NS	0,001	0.060	NS	0.014	15,430
00/10/04	1,200,303	27 /31	1 73	2 4 9 4	1 227 893	NS	0.114	6.147	NS	0.001	0.061	NS	0.011	15.469
06/29/04	1,220,340	27,401	1.52	2 189	1 265 103	<1.000	0.155	6.303	<10	0.002	0.063	<100	0.016	15.485
07/16/04	1,205,500	37,210	1.66	2 392	1 298 593	NS	0,140	6.442	NS	0.001	0.064	NS	0.014	15,499
07/30/04	1,299,040	46 260	1.50	2 3 2 3	1 314 853	<1.000	0.068	6.510	<10	0.001	0.065	<100	0.007	15,505
08/06/04	1,315,300	10,200	1.01	2,520	1 347 423	NS	0.136	6.646	NS	0.001	0.066	NS	0.014	15.519
08/20/04	1,347,870	32,570	1.02	2,320	1 380 073	<1 000	0.136	6,782	<10	0.001	0.068	<100	0.014	15.533
09/03/04	1,380,520	32,000	1.04	2,352	1 380 073	NS	0 000	6.782	NS	0.000	0.068	NS	0.000	15.533
09/17/04	1,380,520	0	0.00	2 2 2 5	1 / 13 / 69	NS	0.139	6.922	NS	0.001	0.069	NS	0.014	15.547
10/01/04	1,413,915	33,395	1.00	2,300	1,410,400	<50	0.003	6.925	<0,50	0.000	0,069	29	0.004	15.551
10/08/04	1,430,142	16,227	1.61	∠,318	1 420 441	NIS	0.000	6 925	NS	0.000	0.069	NS	0.000	15.551
10/22/04	1,430,888	746	0.04	53	1,430,441	~50	0.006	6 931	<0.50	0.000	0.069	5.2	0.001	15.552
11/05/04	1,458,650	27,762	1.38	1,903	1,400,200	NS	0.007	6 938	NS	0.000	0.069	NS	0.002	15,553
11/19/04	1,493,299	34,649	1./2	2,475	1,492,002	1050	0.007	6 972	<2.5	0.000	0.070	<25	0.003	15.557
12/02/04	1 525 750	32 451	1.61	2.318	1,525,303	-200	0.004	0.012	1					

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Mass Removal

### Groundwater Extraction - Mass Removal Data Shell-branded Service Station, Incident #98995842 3790 Hopyard Road, Pleasanton, California

				Sector 1						and a second second second second				second and this full
							TPH-G			Benzene			MIBE	0
Site	Flow Meter	Period	Flow	Flow	Cumulative	TPH-G	Period	Cumulative	Benzene	Period	Cumulative	MTBE	Period	Cumulative
Visit	Reading	Volume	Rate	Rate	Volume	Conc.	Removal	Removal	Conc.	Removal	Removal	Conc.	Removal	Removal
(mm/dd/yy)	(gal)	(gal)	(gpm)	(gpd)	(gal)	(ppb)	(pounds)	(pounds)	(ppb)	(pounds)	(pounds)	(ppb)	(pounds)	(pounds)
12/17/04	1 559 338	33,588	1.67	2,399	1,558,891	NS	0.035	7.007	NS	0.000	0.070	NS	0.004	15.560
01/07/05	1,614,590	55,252	1.83	2,631	1,614,143	150	0.069	7.076	0.95	0.000	0.071	18	0.008	15,009
02/28/05	1.616.214	1,624	0.02	31	1,615,767	100	0.002	7.078	<0.50	0.000	0.071	<0.50	0.000	15.509
03/04/05	1,616,492	278	0.05	69	1,616,045	NS	0.000	7.079	NS 10.50	0.000	0.071	-0.50	0.000	15 569
03/08/05	1,623,641	7,149	1.24	1,787	1,623,194	<50	0.001	7.080	<0.50	0.000	0.071	-0.50 NS	0.000	15,569
03/24/05	1,658,851	35,210	1.53	2,201	1,658,404	NS	0.007	7.087	NS ·	0.000	0.071	NG	0.000	15 569
03/28/05	1,670,077	11,226	1.95	2,806	1,669,630	NS	0.002	7.090	NS	0,000	0.071	<0.50	0.000	15 569
04/08/05	1,673,205	3,128	0.20	284	1,672,758	<50	0.001	7.090	<0.50	0.000	0.071	NC	0.000	15 569
04/13/05	1,673,618	414	0.06	83	1,673,171	NS	0.000	7,091	NS	0.000	0.071	NG	0.000	15 569
04/15/05	1,686,550	12,932	4.49	6,466	1,686,103	NS	0.003	7.093	NS	0.000	0.071	NO	0.000	15 569
04/21/05	1,719,745	33,195	3.84	5,533	1,719,298	NS	0.007	7.100	NS	0.000	0.071	INS .	0.000	15.503
04/27/05	1,751,546	31.801	3.68	5,300	1,751,099	<50	0.007	7.107	<0.50	0.000	0.071	31.0	0.008	13.377
05/11/05	1 752 139	593	0.03	42	1,751,692	<50	0.000	7.107	<0.50	0.000	0.071	28.0	0.000	15.577
05/20/05	1 795 728	43 589	3.36	4,843	1,795,281	NS	0.009	7.116	NS	0.000	0.071	NS	0.010	15.588
06/03/05	1 864 820	69 092	3.43	4,935	1,864,373	<50	0.014	7.130	<0.50	0.000	0,071	12.0	0.007	15.595
06/06/05	1 874 014	9 194	2.13	3,065	1,873,567	NS	0.002	7.132	NS	0.000	0.071	NS	0.001	15.596
06/00/05	1 874 045	30	0.00	3	1.873.598	NS	0.000	7.132	NS	0.000	0,071	NS	0.000	15,596
00/17/05	1,074,040	50 627	3 20	4 602	1,924,225	NA	0.011	7,143	NA	0.000	0.071	NA	0.005	15.601
06/26/05	1,924,072	14 555	3 37	4 852	1,938,780	<50	0.003	7,146	<0.50	0.000	0.071	11	0.001	15.602
07/01/05	1,939,227	64 937	2.07	3 917	1 993 617	NS	0.011	7.157	NS	0.000	0.071	NS	0.005	15.607
07/15/05	1,994,004	54,057 63.106	2.12	4 514	2 056 813	<50	0.013	7.171	<0.50	0,000	0.071	10	0.005	15.612
07/29/05	2,057,260	03,190	3.16	4,545	2 088 627	<50	0.007	7,177	<0.50	0.000	0.072	6.6	0.002	15.614
08/05/05	2,069,074	31,014	2.10	4 255	2 160 955	NS	0.015	7,192	NS	0.000	0.072	NS	0.004	15.618
08/22/05	2,161,402	12,320	2.90	4,200	2,100,000	<50	0.009	7.201	<0.50	0.000	0.072	4.9	0.002	15.620
09/01/05	2,203,738	42,330	2.54	4,204	2,200,201	NS	0.010	7,212	NS	0.000	0.072	NS	0.002	15.622
09/13/05	2,253,618	49,880	2.69	4,107	2,200,171	<200	0.015	7 226	<2.0	0.001	0.072	4.2	0.002	15.624
10/07/05	2,324,668	/1,050	2.06	2,900	2,024,221	NS	0.015	7 241	NS	0,001	0.073	NS	0,003	15.627
10/24/05	2,396,125	(1,457	2.92	4,203	2,395,076	K3	0.010	7 251	<0.50	0.000	0.073	2.9	0.001	15.628
11/04/05	2,440,441	44,316	2.80	4,029	2,439,994	NC	0.005	7 264	NS	0 000	0.073	NS	0.002	15.629
11/20/05	2,505,320	64,879	2.82	4,055	2,504,675	145	0.014	7 350	21	0.002	0.075	3.0	0.002	15.632
12/13/05	2,594,353	89,033	2.69	3,871	2,593,906	230	0.000	7.330	11	0.001	0.076	3.7	0,003	15.635
01/06/06	2,693,473	99,119	2.87	4,130	2,693,026	<50	0.021	7.370	NIC	0.001	0.076	NS	0.002	15,636
01/19/06	2,751,512	58,040	3.10	4,465	2,751,065	NS	0.012	7.362	11	0.001	0.070	5.6	0.003	15.639
02/02/06	2,812,400	60,887	3.02	4,349	2,811,953	<50	0.013	1.393	1.1	0.001	0.077	NS	0.003	15.642
02/16/06	2,871,764	59,365	2.94	4,240	2,871,317	NS	0.012	7,407	INS 0.0	0.001	0.078	20	0.002	15 644
03/03/06	2,935,534	63,770	2.95	4,251	2,935,087	55	0.029	7.43/	0.6	0.000	0.078	NS	0.002	15 645
03/21/06	3,012,130	76,596	2.96	4,255	3,011,683	NS	0.035	7.472	NS	0.000	0.070	600	0.002	15 649
04/10/06	3,065,491	53.361	1.85	2,668	3,065,044	<50	0.011	7.483	<0.50	0.000	0.078	0.90	0,003	13.048

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Mass Removal

#### Groundwater Extraction - Mass Removal Data Shell-branded Service Station, Incident #98995842 3790 Hopyard Road, Pleasanton, California

Site Visit	Flow Meter Reading (gal)	Period Volume (gal)	Flow Rate (gpm)	Flow Rate (gpd)	Cumulative Volume	TPH-G Conc. (ppb)	TPH-G Period Removal (pounds)	Cumulative Removal (pounds)	Benzene Conc. (ppb)	Benzene Period Removal (pounds)	Cumulative Removai (pounds)	MTBE Conc. (ppb)	MTBE Period Removal (pounds)	Cumulative Removal (pounds)
04/14/06 04/18/06 05/04/06	3,080,381 3,102,176 3,142,659	14,890 21,795 40,483	2.59 1.89 1.41	3,723 5,449 2,530	3,079,934 3,101,729 3,142,212	NS NS 53	0.003 0.005 0.018	7.486 7.491 7.508	NS NS 1.7	0.000 0.000 0.001	0.078 0.078 0.079	NS NS 25	0.001 0.001 0.008	15.649 15.651 15.659
Reporting Per Overall:	l		Total Gallon Total Gallon	s Extracted: s Extracted:	136,529 3,142,212	Total Pounds Total Pounds Total Gallons	Removed: Removed: Removed:	0.04 7.51 1.23	Total Pounds Total Pounds Total Gailons	Removed: Removed: Removed:	0.001 0.079 0.011	Total Pound Total Pound Total Gallor	ds Removed: ds Removed: ns Removed:	0.014 15.7 2.54

#### Abbreviations & Notes:

TPH-G = Total purgeable hydrocarbons as Gasoline MTBE = Methyl tert-butyl ether Conc. = Concentration ppb = Parts per billion, equivalent to ug/L. ug/L = Micrograms per liter L = Liter gal = Gallon g = Gram NS = Not Sampled NA = Sample results are not available at this time TPH-G, benzene and MTBE analyzed by EPA Method 8260

Mass removed based on the formula: volume extracted (gal) x Concentration (mg/L) x (g/10°mg) x (pound/453.6g) x (3.785 L/gal) When constituents are not detected, the concentration is assumed to be equal to half the detection limit in subsequent calculations. Volume removal data based on the formula: mass (pounds) x (density)<sup>1</sup> (cc/g) x 453.6 (g/pound) x (L/1000 cc) \* (gal/3.785 L) Density inputs: TPH-G = 0.73 g/cc, benzene = 0.88 g/cc, MTBE = 0.74 g/cc

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Mass Removal

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995842, 3790 Hopyard Road, Pleasanton, California

			-										
	· · · · · · · · · · · · · · · · · · ·	<u>.</u>			-	ГРРН		1	Benzene			MTBE	
			Cumulative				TPPH			Benzene			MTBE
		Volume	Volume		ТРРН	TPPH	Removed	Benzene	Benzene	Removed	MTBE	MTBE	Removed
Date	Well	Pumped	Pumped	Date	Concentration	Removed	To Date	Concentration	Removed	To Date	Concentration	Removed	To Date
Purged	ID	(gal)	(gal)	Sampled	(ppb)	(pounds)	(pounds)	(ppb)	(pounds)	(pounds)	(ppb)	(pounds)	(pounds)
 Turgeu		(5)	(8/										
05/17/01	S-2	20	20	03/07/01	<500	0.00004	0.00004	14.7	0.00000	0.00000	8,610	0.00144	0.00144
05/22/01	S-2	100	120	03/07/01	<500	0.00021	0.00025	14.7	0.00001	0.00001	8,610	0.00718	0.00862
05/29/01	S-2	75	195	03/07/01	<500	0.00016	0.00041	14.7	0.00001	0.00002	8,610	0.00539	0.01401
08/08/01	S-2	50	245	06/18/01	<2,000	0.00042	0.00082	<20	0.00000	0.00003	7,100	0.00296	0.01697
08/17/01	S-2	20	265	06/18/01	<2,000	0.00017	0.00099	<20	0.00000	0.00003	7,100	0.00118	0.01816
08/31/01	S-2	250	515	06/18/01	<2,000	0.00209	0.00308	<20	0.00002	0.00005	7,100	0.01481	0.03297
05/17/01	S-4	100	100	03/07/01	<500	0.00021	0.00021	5.44	0.00000	0.00000	14,500	0.01210	0.01210
05/22/01	S-4	150	250	03/07/01	<500	0.00031	0.00052	5.44	0.00001	0.00001	14,500	0.01815	0.03025
05/29/01	S-4	125	375	03/07/01	<500	0.00026	0.00078	5.44	0.00001	0.00002	14,500	0.01512	0.04537
08/08/01	S-4	50	425	06/18/01	<1,000	0.00021	0.00099	<10	0.00000	0.00002	3,500	0.00146	0.04683
08/17/01	S-4	40	465	06/18/01	<1,000	0.00017	0.00116	<10	0.00000	0.00002	3,500	0.00117	0.04800
08/31/01	S-4	500	965	06/18/01	<1,000	0.00209	0.00324	<10	0.00002	0.00004	3,500	0.01460	0.06260
06/26/02	S-4	1,669	2,634	06/18/02	<100	0.00070	0.00394	1.1	0.00001	0.00005	530	0.00738	0.06998
07/10/02	S-4	100	2,734	06/18/02	<100	0.00004	0.00398	1.1	0.00000	0.00005	530	0.00044	0.07043
07/24/02	S-4	0	2,734	06/18/02	<100	0.00000	0.00398	1.1	0.00000	0.00005	530	0.00000	0.07043
08/12/02	S-4	0	2,734	06/18/02	<100	0.00000	0.00398	1.1	0.00000	0.00005	530	0.00000	0.07043
09/09/02	S-4	100	2,834	06/18/02	<100	0.00004	0.00402	1.1	0.00000	0.00005	.530	0.00044	0.07087
												0.00000	0.00000
05/17/01	T-2	2,300	2,300	NA	NA.	0.00000	0.00000	NA	0.00000	0.00000	NA	0.00000	0.00000
05/22/01	T-2	0	2,300	NA	NA	0.00000	0.00000	NA	0.00000	0.00000	NA	0.00000	0.00000
05/29/01	T-2	0	2,300	NA	NA	0.00000	0.00000	NA	0.00000	0.00000	NA	0.00000	0.00000
08/08/01	T-2	1,300	3,600	09/17/01	<5,000	0.02712	0.02712	<25	0.00014	0.00014	29,000	0.31458	0.31458
08/17/01	T-2	10	3,610	09/17/01	<5,000	0.00021	0.02733	<25	0.00000	0.00014	29,000	0.00242	0.31/00
08/31/01	T-2	2,000	5,610	09/17/01	<5,000	0.04172	0.06905	<25	0.00021	0.00035	29,000	0.4839/	0.8009/
04/11/02	T-2	2,465	8,075	03/13/02	<5,000	0.05142	0.12047	<50	0.00051	0.00086	48,000	0.98/30	1.78828
04/24/02	T-2	2,074	10,149	03/13/02	<5,000	0.04327	0.16374	<50	0.00043	0.00129	48,000	0.06520	2.01070
05/15/02	T-2	2,410	12,559	03/13/02	<5,000	0.05027	0.21401	<50	0.00050	0.00179	48,000	0.90328	J.J042J
05/29/02	T-2	2.408	14.967	03/13/02	<5,000	0.05023	0.26424	<50	0.00050	0.00230	48,000	0.9044/	4.340/3

## CAMBRIA

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995842, 3790 Hopyard Road, Pleasanton, California

06/12/02	T-2	2,338	17,305	03/13/02	<5,000	0.04877	0.31302	<50	0.00049	0.00278	48,000	0.93644	5.48516
06/26/02	T-2	1,000	18,305	06/18/02	<20,000	0.08344	0.39646	<200	0.00083	0.00362	100,000	0.83444	6.31960
07/10/02	T-2	1,025	19,330	06/18/02	<20,000	0.08553	0.48199	<200	0.00086	0.00447	100,000	0.85530	7.17489
07/24/02	T-2	0	19,330	06/18/02	<20,000	0.00000	0.48199	<200	0.00000	0.00447	100,000	0.00000	7.17489
08/12/02	T-2	0	19,330	06/18/02	<20,000	0.00000	0.48199	<200	0.00000	0.00447	100,000	0.00000	7.17489
09/09/02	T-2	2.336	21,666	06/18/02	<20,000	0.19492	0.67692	<200	0.00195	0.00642	100,000	1.94924	9.12414
09/30/02	T-2	2.295	23,961	09/27/02	240	0.00460	0.68151	0.55	0.00001	0.00643	39	0.00075	9.12488
10/07/02	T-2	2.312	26,273	09/27/02	240	0.00463	0.68614	0.55	0.00001	0.00645	39	0.00075	9.12564
10/21/02	T-2	2.355	28,628	09/27/02	240	0.00472	0.69086	0.55	0.00001	0.00646	39	0.00077	9.12640
11/05/02	т-2	2.532	31,160	09/27/02	240	0.00507	0.69593	0.55	0.00001	0.00647	39	0.00082	9.12723
11/19/02	T-2	2,439	33,599	09/27/02	240	0.00488	0.70081	0.55	0.00001	0.00648	39	0.00079	9.12802
12/06/02	T-2	2.362	35,961	09/27/02	240	0.00473	0.70554	0.55	0.00001	0.00649	39	0.00077	9.12879
12/28/02	T-2	2.005	37,966	12/27/02	2,100	0.03513	0.74068	7.8	0.00013	0.00662	790	0.01322	9.14201
01/17/03	T-2	1.770	39,736	12/27/02	2,100	0.03102	0.77169	7.8	0.00012	0.00674	790	0.01167	9.15367
01/29/03	T-2	2.096	41,832	12/27/02	2,100	0.03673	0.80842	7.8	0.00014	0.00687	790	0.01382	9.16749
02/12/03	T-2	2.353	44,185	12/27/02	2,100	0.04123	0.84965	7.8	0.00015	0.00702	790	0.01551	9.18300
02/26/03	T-2	2.012	46,197	12/27/02	2,100	0.03526	0.88491	7.8	0.00013	0.00716	790	0.01326	9.19626
03/12/03	T-2	200	46.397	12/27/02	2,100	0.00350	0.88841	7.8	0.00001	0.00717	790	0.00132	9.19758
05/12/05													
09/09/02	Т-4*	0	0	09/27/02	240	0.00000	0.00000	0.55	0.00000	0.00000	39	0.00000	0.00000
09/09/02	T_4*	2 264	2.264	09/27/02	240	0.00453	0.00453	0.55	0.00001	0.00001	39	0.00074	0.00074
10/21/02	T-4*	2,201	4,593	09/27/02	240	0.00466	0.00920	0.55	0.00001	0.00002	39	0.00076	0.00149
11/05/02	T-4*	2,657	7.250	09/27/02	240	0.00532	0.01452	0.55	0.00001	0.00003	39	0.00086	0.00236
11/05/02	T-4*	2,657	9,907	09/27/02	240	0.00532	0.01984	0.55	0.00001	0.00005	39	0.00086	0.00322
12/06/02	T-4*	1.657	11,564	09/27/02	240	0.00332	0.02316	0.55	0.00001	0.00005	39	0.00054	0.00376
12/28/02	T-4	2,175	13,739	12/27/02	550	0.00998	0.03314	5.3	0.00010	0.00015	140	0.00254	0.00630
01/17/03	T-4	1,664	15,403	12/27/02	550	0.00764	0.04078	5.3	0.00007	0.00022	140	0.00194	0.00825
01/29/03	T-4	1,679	17,082	12/27/02	550	0.00771	0.04848	5.3	0.00007	0.00030	140	0.00196	0.01021
02/12/03	T-4	2,276	19,358	12/27/02	550	0.01045	0.05893	5.3	0.00010	0.00040	140	0.00266	0.01287
02/26/03	T-4	1,969	21,327	12/27/02	550	0.00904	0.06796	5.3	0.00009	0.00048	140	0.00230	0.01517
03/12/03	т-4	308	21.635	12/27/02	550	0.00141	0.06938	5.3	0.00001	0.00050	140	0.00036	0.01553
0.0112/03		200	, -										
Total Callons	Extracted		71.381		Total Pound	s Removed:	0.96489			0.00777			9.31695
LOGALVIAHOUS	J.AU AUCU				Tatal Callon	Domotodia	0 15818			0.00106			1,50273

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995842, 3790 Hopyard Road, Pleasanton, California

#### Abbreviations & Notes:

TPPH = Total purgeable hydrocarbons as gasoline MtBE = Methyl tert-butyl ether ppb = Parts per billion gal = Gallon \* = Concentrations for tank backfill well T-4 taken from nearest sampled tank backfill well, T-2. Mass removed based on the formula: volume extracted (gal) x Concentration (g/L) x (g/10<sup>6</sup>µg) 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 analyzed by EPA Method 8015/8020

MTBE analyzed by EPA Method 8260 in bold font, all other MTBE analyzed by EPA Method 8020

Concentrations based on most recent groundwater monitoring results

Groundwater extracted by vacuum trucks provided by ACTI. Water disposed of at a Martinez Refinery.

# TABLE 3 MgSO4 FEASIBILITY PILOT STUDY MONITORING DATA Shell-branded Service Station 3790 Hopyard Road Discounter Collifornia

Pleasanton, California

				_													
		Depth to			Ferrous	Ferric		_									
Wall ID	Date	Water (feet			iron	Iron		1	BTEX Col	mpounds			MERE		DIDE	ETDE	TANE
	Date	below	рН	Sulfate	(Fe+2)	(Fe+3)	TPH-g	B	T	E	X	Ethanol	MIBE				
		TOC)	(pH units)	(mg/L)	(mg/L)	(mg/L)	(ug/L)	ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
	tion Wells																
SR-2	5/7/10 11:35 AM	11 70	6.83*	13	0.8	ND(<0.10)	180	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<100)	18	530	ND(<2.0)	ND(<2.0)	ND(<2.0)
SR-2	5/28/10 2:00 PM	NR	NA	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SP-2	6/4/10 10:25 AM	13.98	7 12	12	0.4	ND(<0.10)	180	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	NA	. 15	420	ND(<2.0)	ND <u>(</u> <2.0)	ND(<2.0)
SP-2	6/29/10 12:30 PM	NR	67	11	.0.0	0.48	210	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	NA	14	590	ND(<2.0)	ND(<2.0)	ND(<2.0)
SR-2	8/10/10 11:20 AM	15.00	7.52	7.6	2.0	ND(<0.10)	710	1.2	ND(<1.0)	1.3	ND(<1.0)	ND(<100)	19	820	ND(<2.0)	ND(<2.0)	ND(<2.0)
SR-2	8/26/10 10:25 AM	NR	NA	7.2	NA 🕔	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR-2	9/8/10 10:30 AM	14.95	6.65	4.6	2.4	ND(<0.10)	490	1.9	ND(<1.0)	1.9	ND(<1.0)	ND(<100)	24	720	ND(<2.0)	ND(<2.0)	ND(<2.0)
SR-2	10/6/10 10:40 AM	14.95	6.73	2.1	2.6	ND(<0.10)	750	2.3	ND(<1.0)	2.0	ND(<1.0)	ND(<100)	21	940	ND(<2.0)	ND(<2.0)	ND(<2.0)
		1 1100				<u> </u>	· · · · · · · · · · · · · · · · · · ·										
<u>S-3</u>	5/7/10 11:00 AM	11.73	6.66*	130	0.4	ND(<0.10)	ND(<50)	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<100)	ND(<1.0)	ND(<10)	ND(<2.0)	ND(<2.0)	ND(<2.0)
5-3	6/29/10 11:00 AM	NR	6.6	110	0.0	0.10	ND(<50)	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	NA	ND(<1.0)	ND(<10)	ND(<2.0)	ND(<2.0)	ND(<2.0)
<u> </u>	8/10/10 10:20 AM	13.50	7.42	190	4.6	ND(<0.10)	ND(<50)	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	210	ND(<1.0)	ND(<10)	ND(<2.0)	ND(<2.0)	ND(<2.0)
<u> </u>	10/6/10 12:45 PM	13.65	6.39	150	· 0.8	ND(<0.10)	ND(<50)	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<100)	ND(<1.0)	ND(<10)	ND(<2.0)	ND(<2.0)	ND(<2.0)
	10/0/10 12.401 1	10.00	0.00				•	L									
SR-3	5/7/10 10:10 AM	11.95	6.79*	1.1	3.6	0.19	3,800	24	1.7	2.6	3.9	ND(<100)	24	1,300	ND(<2.0)	ND(<2.0)	ND(<2.0)
	5/28/10 1:40 PM	NR	NA	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SP.3	6/4/10 9:45 AM	13.48	6.98	ND(<1.0)	3.2	ND(<0.10)	2,100	21	1.5	1.4	3.6	NA	24	1,300	ND(<2.0)	ND(<2.0)	ND(<2.0)
SP-3	6/29/10 12:00 PM	NR	67	ND(<1.0)	2.6	2.00	2,100	19	1.3	1.6	2.6	NA	18	1,700	ND(<2.0)	ND(<2.0)	ND(<2.0)
CD_3	8/10/10 12:10 PM	15.71	7 48	2.0	4.6	2.30	2,700	21	1.6	2.6	2.9	ND(<100)	20	1,800	ND(<2.0)	ND(<2.0)	ND(<2.0)
SP.3	8/26/10 10:50 AM	NR	NA	ND(<5.0)**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CD 3	9/8/10 11:00 AM	14.66	6.57	ND(<1.0)	6.2	0.81	2,000	24	ND(<2.0)	4.5	3.7	ND(<200)	19	1,100	ND(<4.0)	ND(<4.0)	ND(<4.0)
CD 3	10/6/10 11:45 AM	15.39	6.58	ND(<1.0)	2.8	3.29	1,800	21	ND(<2.0)	3.2	3.6	ND(<200)	19	1,600	ND(<4.0)	ND(<4.0)	ND(<4.0)
	10/0/10 11.40 / 44/	1	0.00	1			<b></b>	J	<u> </u>								
8.6	5/7/10 8:50 AM	13.61	6.68*	20	0.2	2.84	ND(<50)	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<100)	4.9	110	ND(<2.0)	ND(<2.0)	ND(<2.0)
<u>S-6</u>	6/4/10 8:30 AM	13 70	6.54	55	0.0	19	53	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	NA	5.6	210	ND(<2.0)	ND(<2.0)	ND(<2.0)
5-0	6/29/10 9:30 AM	NR	6.7	10	4.0	0.29	170	ND(<0.50)	ND(<1.0)	ND(<1.0)	ND(<1.0)	NA	8.2	1,600	ND(<2.0)	ND(<2.0)	ND(<2.0)
5-0	8/10/10 9:30 AM	15.55	7 47	2.4	4.6	4.81	430	ND(<2.5)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND (<500)	12	3,700	ND(<10)	ND(<10)	ND(<10)
<u> </u>	0/8/10 0.15 AM	15.00	6.55	8.5	3.4	3.41	1,100	ND(<2.5)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<500)	15	4,100	ND(<10)	ND(<10)	ND(<10)
<u> </u>	10/6/10 9:10 AM	15.02	6.51	5.6	3.4	5.38	870	ND(<2.5)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<500)	11	4,400	ND(<10)	ND(<10)	ND(<10)
1 3-0	10/0/10 3.00 AW	10.02	0.01				1										

# TABLE 3 MgSO4 FEASIBILITY PILOT STUDY MONITORING DATA Shell-branded Service Station 3790 Hopyard Road

Pleasanton, California

												_	1				
		Depth to			Ferrous	Ferric											
Wall	Data	Water (feet			Iron	Iron			BTEX Con	npounds				-		ETDE	TANE
went	Date	below	рН	Sulfate	(Fe+2)	(Fe+3)	TPH-g	В	Т	E	X	Ethanol	MIBE	IBA	DIPE	EIBE	
		TOC)	(pH units)	(mg/L)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	<u>(ug/L)</u>	_ (ug/L)	(ug/L)	(ug/L)
Applicat	tion Points													r			
S-2	5/7/10 9:50 AM a	13.23	6.61*	ND(<1.0)	5.0	1.15	13,000	62	3.4	67	17	ND(<100)	56	920	ND(<2.0)	ND(<2.0)	ND(<2.0)
S-2	5/7/10 6:20 PM	NR	NA	59,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-2	5/28/10 1:35 PM	NR	NA	1,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-2	6/4/10 9:10 AM	13.95	6.65	1,700	7.2	10	8,300	84	4.0	110	20	NA	81	910	ND(<2.0)	ND(<2.0)	ND(<2.0)
S-2	6/29/10 11:30 AM	NR	6.7	350	5.6	5.70	12,000	74	ND(<5.0)	88	12	NA	51	1,300	ND(<10)	ND(<10)	ND(<10)
S-2	8/10/10 11:50 AM	15.35	7.62	280	4.6	4.61	9,800	60	2.8	85	12	ND(<200)	48	990	ND(<4.0)	ND(<4.0)	ND(<4.0)
S-2	8/11/10 4:15 PM b	15.30	NA	62,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>S-2</u>	8/26/10 10:40 AM	NR	NA	5,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-2	9/8/10 11:30 AM	14.74	6.38	2,600	5.8	24.3	10,000	80	ND(<5.0)	120	18	ND(<500)	56	1,200	ND(<10)	ND(<10)	ND(<10)
S-2	10/6/10 11:25 AM	15.46	6.55	1,200	4	11.1	8,700	66	ND(<5.0)	100	15	ND(<500)	39	1,100	ND(<10)	ND(<10)	ND(<10)
				••••••••••••••••••••••••••••••••••••••													
S-4	5/7/10 12:00 PM a	12.86	6.71*	ND(<1.0)	2.4	3.29	5,200	4.6	ND(<2.0)	35	3.2	ND(<200)	17	960	ND(<4.0)	ND(<4.0)	ND(<4.0)
S-4	5/7/10 8:35 PM	NR	NA	49,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-4	5/28/10 2:05 PM	NR	NA	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-4	6/4/10 8:50 AM	13.96	6.71	14,000	6.1	10.7	2,100	2.5	ND(<1.0)	35	1.5	NA	8.4	410	ND(<2.0)	ND(<2.0)	ND(<2.0)
S-4	6/29/10 1:00 PM	NR	6.7	8,200	4.0	11.9	1,400	2.4	ND(<1.0)	13	ND(<1.0)	NA	7.8	390	ND(<2.0)	ND(<2.0)	ND(<2.0)
S-4	8/10/10 11:00 AM	14.95	7.51	4,400	4.8	7.4	1,700	2.9	ND(<1.0)	55	ND(<1.0)	ND(<100)	10	550	ND(<2.0)	ND(<2.0)	ND(<2.0)
<u>S-4</u>	8/11/10 4·30 PM b	15.02	NA	13,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>S-4</u>	8/26/10 10:20 AM	NR	NA	7,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-4	9/8/10 10:00 AM	14.80	6.3	3,600	5.2	6.6	2,100	5.4	1.2	57	4.6	ND(<100)	25	430	ND(<2.0)	ND(<2.0)	ND(<2.0)
S-4	10/6/10 10:20 AM	14.65	6.54	3,100	3.2	29.1	1,700	5.8	ND(<1.0)	74	1.8	ND(<100)	27	1,400	ND(<2.0)	ND(<2.0)	ND(<2.0)

#### Abbreviations:

TPH-g = Total petroleum hydrocarbons as gasoline by EPA Method 8260B

BTEX = benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B

MTBE = Methyl tertiary butyl ether, analyzed by EPA Method 8260

DIPE = Di-isopropyl ether, analyzed by EPA Method 8260

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

TAME = Tertiary-amyl methyl ether, analyzed by EPA Method 8260

### **TABLE 3** MgSO4 FEASIBILITY PILOT STUDY MONITORING DATA Shell-branded Service Station

3790 Hopyard Road Pleasanton, California

		Depth to Water (feet			Ferrous Iron	Ferric Iron			BTEX Con	npounds							
Well ID	Date	below TOC)	pH (pH units)	Sulfate (mg/L)	(Fe+2) (mg/L)	<b>(Fe+3)</b> (mg/L)	<b>TPH-g</b> (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Ethanol (ug/L)	MTBE (ug/L)	TBA (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)

Abbreviations (cont.):

TBA = Tertiary-butyl alcohol

TOC = Top of Casing

mg/L = Milligrams per liter

ug/L = Micrograms per liter

ND(<n) = Not detected above shown detection limit n

NA = Not Analyzed

NR= Not Reported

#### Notes:

\*Laboratory pH derived by SM 4500 H+ B.

\*\*The reporting limit is elevated resulting from matrix interference.

pH measured in the field unless otherwise specified

Ferrous iron measured using a field kit.

Sulfate analyzed by EPA Method 300.0

Ferric iron calculated from ferrous iron and total iron concentrations analyzed by EPA Method 6010B.

Ethanol analyzed by EPA Method 8260B.

a. Initial MgSO4 application May 7, 2010 of approximately 80 to 85 gallons of EOS MgSO4 material to each application well.

b. Second MgSO4 application August 11, 2010 of approximately 55 gallons of EOS MgSO4 material to each application well.