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8:03 am, Apr 03, 2007

Alameda County Environmental Health SUSTAINABLE STRATEGIES FOR GLOBAL LEADERS

TRANSMITTAL

TO:

Jerry Wickham

COMPANY:

Alameda County Health Cares Services Agency -

Environmental Health Services

Address:

1131 Harbor Bay Parkway, Suite 250

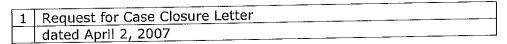
DATE:

April 2, 2007

PROJECT LOCATION: 809 East Stanley Boulevard, Livermore, Ca.

DELTA PROJECT NUMBER: SJ80-9ST-X

ENCLOSED:



SENT VIA:

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^{*} ACGOV.FTP

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MESSAGE:

Thank you, Lee Dooley

cc: Denis Brown, Shell Oil Products US Betty Graham, RWQCB - Oakland



SUSTAINABLE STRATEGIES FOR GLOBAL LEADERS

April 2, 2007 Project SJ80-9ST-X SAP: 135442

Mr. Jerry Wickham
Environmental Health Services – Environmental Protection
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Request for Case Closure Letter Shell Service Station 809 East Stanley Boulevard Livermore, California

Dear Mr. Wickham:

Delta Consultants, Inc. (Delta), on behalf of Shell Oil Products US (Shell), requests issuance of a no further action case closure letter for the site referenced above.

BACKGROUND

The following sections present a description of the current service station and a brief summary of previous site soil and groundwater investigations.

Site Description

The site is located on the southeastern corner of the intersection of East Stanley and Murrieta Boulevards in Livermore, California (Figure 1). The site is the location of a Shell-branded service station. The service station consists of a convenience store, car wash, four fuel dispenser islands, and three underground fuel storage tanks (USTs). A station plan is presented on Figure 2.

Previous Site Investigations

In August 1986, Emcon Associates drilled four soil borings (S-A through S-D) adjacent to the fuel USTs and a waste oil UST scheduled for removal and replacement. The fuel USTs were then located in the southern portion of the site. Soil samples were collected from the borings and analyzed for petroleum hydrocarbons. Petroleum hydrocarbons were not detected in any of the samples analyzed. A copy of an Emcon Associates report dated September 8, 1986 is provided as Attachment A.

The fuel and waste oil USTs were removed and replaced in November 1986. Kaprealian Engineering, Inc. collected soil samples from beneath each UST. Petroleum hydrocarbons were not detected in any of the soil samples analyzed. The new waste oil UST was subsequently removed and not replaced in 1989. Petroleum hydrocarbons were not detected in soil samples from beneath the waste oil UST. Sometime after 1989, the fuel USTs were relocated to the northwest portion of the site (Figure 2). Delta was unable to locate any report





describing removal and relocation of the fuel USTs.

GRASP Well Installations

On September 21 through 25, 2001, IT Corporation (IT) supervised the drilling and installation of four groundwater monitoring wells (MW-1, MW-2, MW-3 and MW-4) as part of Shell's Groundwater Assessment Program (GRASP). GRASP is a voluntary initiative by Shell to install groundwater monitoring wells at numerous retail service stations nationwide that do not have any active release cases but have been identified to be in close proximity to one or more public water supply wells.

Well locations are shown on Figure 2. Borings for wells encountered primarily clays and gravels to their total depths 47.5 feet below grade (bg). Groundwater was encountered in borings at a depth of approximately 37 to 38 feet bg. The location and elevation of the four site wells was established by a licensed surveyor. Depth to water in wells was measured on September 25, 2003. The groundwater flow direction was determined to be to the northeast.

Soil samples from borings were field screened for the presence of petroleum hydrocarbons by a photo ionization detector. One soil sample, from the boring for monitoring well MW-4 at 35.5 to 36 feet bg, was retained for chemical testing. Petroleum hydrocarbons and fuel oxygenates were not detected in the sample. MTBE was detected in the initial groundwater samples (9/25/01) from monitoring well MW-3 at 3.6 micrograms per liter (ug/l).

Soil and Groundwater Investigations (June 2006)

On June 22 and 23, 2006, Delta directed the advancement of five soil borings (SB-1 through SB-5). Borings SB-1 and SB-2 were advanced adjacent to the UST pit, Borings SB-3 was advanced adjacent to site piping and dispenser locations, Boring SB-4 was advanced adjacent to previous dispenser locations, and Boring SB-5 was advanced in the footprint of the former fuel USTs. Boring locations are presented on Figure 2.

Borings SB-1 through SB-4 were advanced to an approximate total depth of 40 feet bg. Boring SB-5 was advanced to a total depth of 70 feet bg, based on elevated PID readings recorded in the field. Grab groundwater samples were collected from Borings SB-1 through SB-5 from first encountered groundwater using a teflon bailer.

Petroleum hydrocarbons were detected in soils from Borings SB-4 and SB-5. The majority of soil impacts were encountered in Boring SB-5 at depths between 35 to 55 ft bg. TPH-G was detected at a maximum concentration of 1,480 mg/kg in SB-5 at a depth of 35 ft bg. Benzene was detected in only one soil sample at a concentration of 0.0314 mg/kg from SB-4 at a depth of 25 ft bg. This concentration is below the San Francisco–Regional Water Quality Control Board's (SF-RWQCB) Environmental Screening Level (ESL) for benzene of 0.044 mg/kg. Ethylbenzene and xylenes were detected in SB-5 at concentrations ranging from 0.00563 mg/kg (ethylbenzene - SB5@55') to 2.7 mg/kg (xylenes – SB5@35'). All other analytes, including oxygenates, were below the laboratory reporting limit in soil. Xylenes were detected in the groundwater samples collected from Borings SB-4 and SB-5 at concentrations of 0.930 ug/l and 0.610 ug/l, respectively. All other analytes were below the laboratory reporting limits in all grab groundwater samples from site borings. A summary of all historical analytical data is included as Table 1 (soil) and Table 2 (groundwater).

Groundwater Monitoring

Site wells have been sampled fourteen times since installation. The only analyte detected has been MTBE. In a letter dated March 7, 2003, the Alameda County Health Care Services Agency identified Shell as the site Responsible Party and opened a Leaking Underground Fuel Tank (LUFT) case. MTBE has been detected five times, all in samples from monitoring well MW-3 at concentrations ranging from 0.64 to 3.6 micrograms per liter (ug/l). The wells were last sampled in November 2006.

REQUEST FOR LETTER OF NO FUTHER ACTION

Shell requests that the RWQCB case for this site be closed and a letter issued stating that no further monitoring or remediation activities are required. This request is based on the following:

There are no apparent recent releases of petroleum hydrocarbons at the site.

- No petroleum hydrocarbons were detected in soil samples associated with the fuel UST removal and replacement in 1986, the waste oil UST removal in 1989, or the borings for the four onsite monitoring wells.
- No field evidence of petroleum hydrocarbons including elevated (> 10 ppmv) photo-ionization detector readings, discoloration, or odor was noted in the area of the former fuel and waste oil USTs or from the borings for the four on-site monitoring wells in 2001.

There is no apparent petroleum hydrocarbon and fuel oxygenate impact to site groundwater.

- MTBE has been detected in MW-3 only five times between September 2001 and October 2003 with low-level concentrations ranging from 0.64 to 3.6 ug/L. All detected concentrations for MTBE have remained below the California maximum contaminant level (MCL) of 5 ug/L for drinking water.
 MTBE has not been detected in any site well since the third quarter of 2003.
- Concentrations of petroleum hydrocarbons including total petroleum hydrocarbons as gas (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds); or fuel oxygenates (including MTBE) have not been detected in any groundwater sample in three consecutive semi-annual groundwater monitoring events (Well Concentrations Table, Attachment B).

There are no known nearby sensitive receptors.

No public drinking water supply wells were identified within 1,000 feet of the site.

Upon receipt of a case closure letter, Shell intends to destroy site Wells MW-1 through MW-4. Delta, on behalf of Shell, will obtain the appropriate well destruction permits prior to beginning any well destruction activities. Delta will submit a well destruction report to the RWQCB.

REMARKS

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

Please contact R. Lee Dooley at 408-826-1880 if you have any questions regarding the contents of this letter.

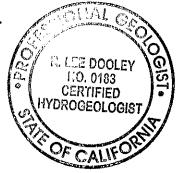
April 2, 2007

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Sincerely,

DELTA CONSULTANTS, INC.

R. Lee Dooley Project Manager



Attachments:

Table 1 – Historical Soil Analytical Data

Table 2 – Historical Groundwater Analytical Data

Figure 1 – Site Location Map

Figure 2 – Site Map

Attachment A - Quarterly Groundwater Report, January 15, 2007

ce: Denis Brown, Shell Oil Products US, Carson

Betty Graham, RWQCB - Oakland

Table 1

Summary of Soil Analytical Data Shell Service Station 809 E Stanley Blvd., Livermore, California

Date Date Date Depth TPH-G Renzer Toluen Genzer Toluen Genzer Toluen Genzer																
Selignation Sampled Geet (mg/kg) (mg					_		Ethyl-	V-1	MTDE	DIDE	ETDE	TARRE	TDA	12-DCA	EDB	Ethanol
Sept 1			•					•								
\$\frac{8}{10} \frac{10}{10} \frac{6}{10} \frac{2}{10} \frac{10}{10} \frac{1}{10} \f	Designation	Sampled	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(Hig/kg)	(Hig/kg)	(Hig/kg)	(Hg/kg)
\$\frac{8}{10} \frac{10}{10} \frac{6}{10} \frac{2}{10} \frac{10}{10} \frac{1}{10} \f																
\$\(\frac{\text{B}}{10}\) \(\frac{\text{P}}{6}\) \(\frac{\text{P}}{2}\) \(\text{P}\)	SB 1 @ 5'	6/19/2006	5	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
\$81 @ 20	SB 1 @ 10'	6/22/2006	10	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
SET 25 6722/2008 25 ND>0.1 ND>0.002 ND>0.003 ND>0.003 ND>0.002 ND>0.003 ND>0.003 ND>0.002 ND>0.003 ND>0.	SB 1 @ 15'	6/22/2006	15	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
\$81 @ 30' 6722/2006 35 NP-0.01 NP-0.002	SB 1 @ 20'	6/22/2006	20	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
\$81 (@ 30' 6)22/2006 35 NP-0.01 NP-0.002 NP-0.00	SB 1 @ 25'	6/22/2006	25	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
\$8 @ 40	SB 1 @ 30'	6/22/2006	30	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
Set Quarter Control	SB 1 @ 35'	6/22/2006	35	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
SB 2 @ 10'	SB 1 @ 40'	6/22/2006	40	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
SB 2 @ 10	SB 2 @ 5'	6/19/2006	5	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
\$\frac{8}{2} \frac{9}{2} \frac{9}{2} \frac{1}{2} \frac	SB 2 @ 10'	6/22/2006	10	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
SB 2 @ 24.5 6/22/2006	SB 2 @ 15'	6/22/2006	15	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
\$\ \begin{array}{c c c c c c c c c c c c c c c c c c c	SB 2 @ 20'	6/22/2006	20	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
\$\frac{\text{B2} \text{ \tex{ \text{ \text{ \text{ \text{ \text{ \text{ \text{ \text{ \text{	SB 2 @ 24.5'	6/22/2006	24.5	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
\$\ \begin{array}{c c c c c c c c c c c c c c c c c c c	SB 2 @ 35'	6/22/2006		ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
\$\ \text{SB} 3 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	SB 2 @ 40'	6/22/2006	40	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
SB 3 @ 15' 6/22/2006 15 ND<0.01 ND<0.002 ND<0.00	SB 3 @ 5'	6/19/2006	5	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	
SB 3 @ 15' 6/22/2006	SB 3 @ 10'	6/22/2006	10	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
SB 3 @ 20' 6/22/2006		6/22/2006	15	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	2 ND<0.002	
SB 3 @ 29.5' 6/22/2006 29.5 ND<0.1 ND<0.002 ND<0.002 ND<0.002 ND<0.005 ND<0.002 ND<0	SB 3 @ 20'	6/22/2006	20	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	2 ND<0.002	
\$\(\text{SB} 3 \) \(\text{SB} 2 \) \(SB	SB 3 @ 24.5'	6/22/2006	24.5	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	2 ND<0.002	
SB 3 @ 40' 6/22/2006 40 ND<0.1 ND<0.002	SB 3 @ 29.5'	6/22/2006	29.5	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	2 ND<0.002	
\$\ \(\begin{array}{cccccccccccccccccccccccccccccccccccc	SB 3 @ 35'	6/22/2006		ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.00	2 ND<0.002	
SB 4 @ 9.5' 6/23/2006 15 ND<0.1 ND<0.002 ND<0.00	SB 3 @ 40'	6/22/2006	40	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.00	2 ND<0.002	ND<0.2
SB 4 @ 15' 6/23/2006 15 ND<0.1 ND<0.002	SB 4 @ 5'	6/19/2006	5	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.00	2 ND<0.002	ND<0.2
SB 4 @ 20' 6/23/2006 20	SB 4 @ 9.5'	6/23/2006		ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.00	2 ND<0.002	
SB 4 @ 25'	SB 4 @ 15'	6/23/2006	15	ND<0.1	ND<0.002	ND<0.002	2 ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.00	2 ND<0.002	
SB 4 @ 30' 6/23/2006 30	SB 4 @ 20'	6/23/2006			ND<0.002	ND<0.002	2 ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.00	2 ND<0.002	
SB 4 @ 35' 6/23/2006 35 ND<0.1 ND<0.002 ND<0.002 ND<0.002 ND<0.005 ND<0.002 ND<0.002 ND<0.005 ND<0.	SB 4 @ 25'	6/23/2006	25	ND<0.1	0.0314	ND<0.002	2 ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.00	ND<0.002	ND<0.05	ND<0.00	2 ND<0.002	·
SB 4 @ 40'	SB 4 @ 30'	6/23/2006		0.160	ND<0.002	ND<0.002	2 ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.0	ND<0.00	2 ND<0.002	
SB 5 @ 5'	SB 4 @ 35'	6/23/2006	35	ND<0.1	ND<0.002	ND<0.002	2 ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.00	2 ND<0.002	
SB 5 @ 5' 6/19/2006 5 ND<0.1 ND<0.002 ND<0.002 ND<0.002 ND<0.005 ND<0.002 N		6/23/2006	40	ND<0.1	ND<0.002	ND<0.00	2 ND<0.002	ND<0.005	ND<0.002	2 ND<0.002	2 ND<0.00	ND<0.002	∠ ND<0.0	ND<0.00	ZĮ ND<0.002	
SB 5 @ 10'		6/19/2006		ND<0.1	ND<0.002	ND<0.00	2 ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.00	5 ND<0.002	2 ND<0.0	ND<0.00	2 ND<0.002	2 ND<0.2
SB 5 @ 20' 6/23/2006 20 ND<0.1 ND<0.002 ND<0.002 ND<0.002 ND<0.005 ND<0.002		6/23/2006	10	ND<0.1	ND<0.002	ND<0.00	2 ND<0.002	ND<0.005	ND<0.002	ND<0.002	2 ND<0.00	5 ND<0.002	2 ND<0.0	ND<0.00	2 ND<0.002	
SB 5 @ 25' 6/23/2006 25 0.126 ND<0.002 ND<0.002 ND<0.005 ND<0.002 ND<0.002 ND<0.005		6/23/2006	20	ND<0.1	ND<0.002	ND<0.00	2 ND<0.002	ND<0.005	ND<0.002	ND<0.002	2 ND<0.00	5 ND<0.002	2 ND<0.0	5 ND<0.00	2 ND<0.002	2 ND<0.2
				0.126	ND<0.002	2 ND<0.00	2 ND<0.002	ND<0.005	5 ND<0.002	2 ND<0.002	2 ND<0.00	5 ND<0.002	2 ND<0.0	5 ND<0.00	2 ND<0.002	2 ND<0.2
		6/23/2006	30	0.281	ND<0.002	ND<0.00	2 ND<0.002	2 ND<0.005	5 ND<0.002	2 ND<0.002	2 ND<0.00	5 ND<0.002	2 ND<0.0	5 ND<0.00	2 ND<0.002	∠ NU<0.2

Table 1 Summary of Soil Analytical Data

Shell Service Station 809 E Stanley Blvd., Livermore, California

Sample Designation	Date Sampled	Depth (feet)	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Xylene (mg/kg)	MTBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	T AME (mg/kg)	TBA (mg/kg)	1,2 -DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)
SB 5 @ 35'	6/23/2006	35	1,480	ND<0.002	ND<0.002	1.79	2.70	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
SB 5 @ 40'	6/23/2006	40	391	ND<0.002	ND<0.002	0.00618	0.0310	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
SB 5 @ 43.5'	6/23/2006	43.5	380	ND<0.002	ND<0.002	0.0178	0.0315	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
SB 5 @ 50'	6/23/2006	50	15.7	ND<0.002	ND<0.002	0.0407	8080.0	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
SB 5 @ 55'	6/23/2006	55	2.33	ND<0.002	ND<0.002	0.00563	0.00676	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
SB 5 @ 60'	6/23/2006	60	ND<0.1	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
SB 5 @ 65'	6/23/2006	65	0.321	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
SB 5 @ 68.5'	6/23/2006		3.02	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.05	ND<0.002	ND<0.002	ND<0.2
							'								

Notes:

mg/kg = milligrams per kilogram

TPH-G = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tert-butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

TAME = Tert amy-methyl ether

TBA = tert-Butyl alchohol

1,2 - DCA = 1, 2 dichloroethane

EDB = 1, 2 Dibromoethane

Table 2 Summary of Grab Groundwater Analytical Data

Shell Service Station 809 East Stanley Boulevard, Livermore, California

Sample Designation	Date Sampled	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl- benzene (ug/l)	Xylene (ug/l)	MTBE (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)
SB-1	6/22/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<0.5	ND<0.5	ND<50
SB-2	6/22/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<0.5	ND<0.5	ND<50
SB-3	6/22/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<0.5	ND<0.5	ND<50
SB-4	6/23/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	0.930	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<0.5	ND<0.5	ND<50
SB-5	6/23/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	0.610	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<0.5	ND<0.5	ND<50
												1		

Notes:

ug/l = milligrams per kilogram

TPH-G = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tert-butyl ether

DIPE = Di-isopropyl ether

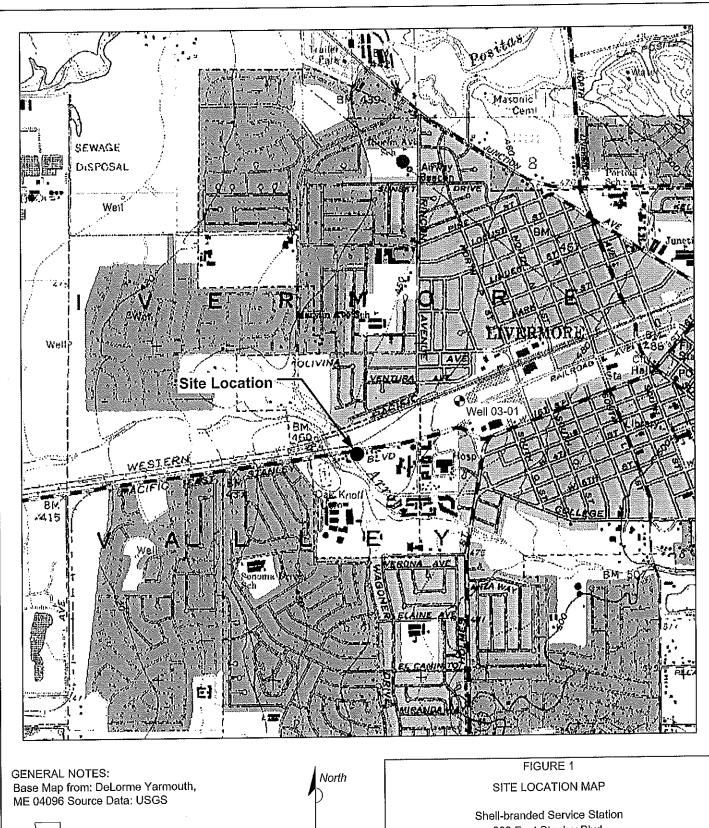
ETBE = Ethyl tert-butyl ether

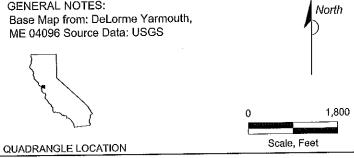
TAME = Tert amy-methyl ether

TBA = tert-Butyl alchohol

1,2 - DCA = 1, 2 dichloroethane

EDB = 1, 2 Dibromoethane

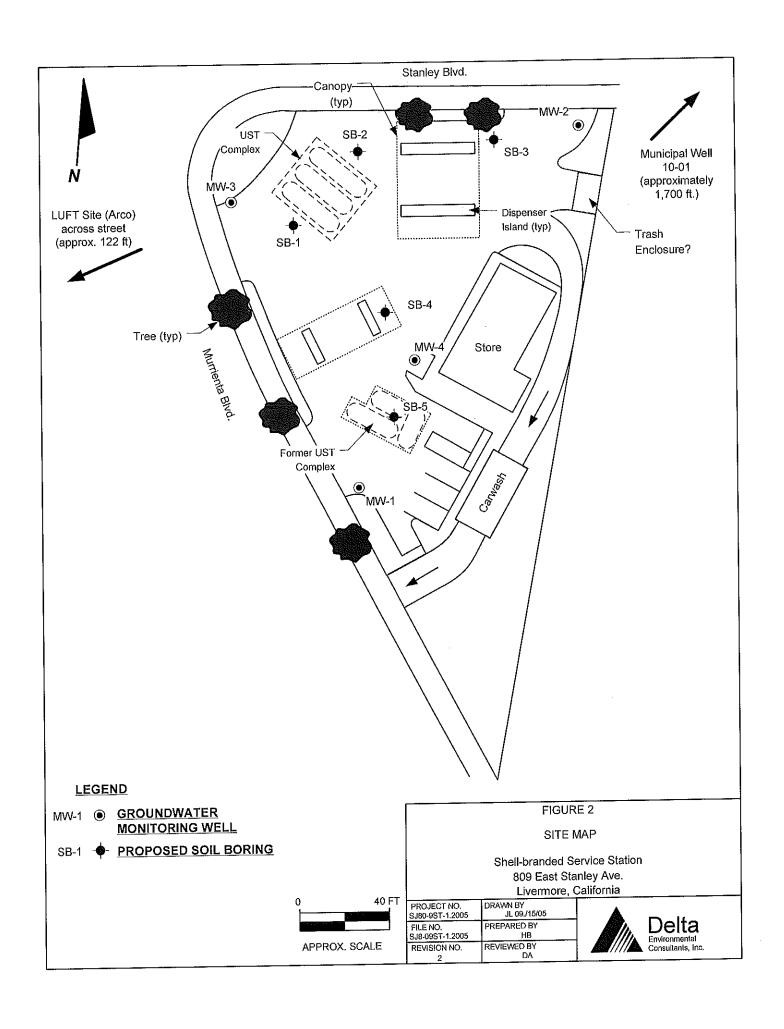




Shell-branded Service Station 809 East Stanley Blvd. Livermore, California

PROJECT NO.	DRAWN BY
SJ80-9ST-1.2005	VF 12/01/03
FILE NO.	PREPARED BY
SJ80-9ST-1.2005	VF
REVISION NO.	REVIEWED BY
1	DA





ATTACHMENT A

QUARTERLY GROUNDWATER REPORT, JANUARY 15, 2007



January 15, 2007

Re: Semi-Annual Fourth Quarter 2006 Groundwater Monitoring Report Shell-branded Service Station

809 East Stanley Boulevard Livermore, California

Dear Mr. Jerry Wickham:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely, Shell Oil Products US

Denis L. Brown Project Manager January 15, 2007 DELTA Project SJ80-9ST-1 SAP: 135442

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

Re: SEMI-ANNUAL FOURTH QUARTER 2006 GROUNDWATER
MONITORING REPORT
Shell-Branded Service Station
809 East Stanley Boulevard
Livermore, California

Dear Mr. Wickham:

On behalf of Shell Oil Products (Shell), Delta Environmental Consultants, Inc. (Delta), has prepared this Fourth Quarter 2006 Groundwater Monitoring Report for the above referenced site.

This quarterly report represents Delta's professional opinions based upon the currently available information and is arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

If you have any questions regarding this site, please contact Mr. Lee Dooley (Delta) at (408) 826-1880 or Mr. Denis Brown (Shell) at (707) 865-0251.

Sincerely,

Delta Environmental Consultants, Inc.

Matt Lambert Staff Scientist

Attachment:

ce:

Fourth Quarter 2006 Groundwater Monitoring Report

Lee Dooley, Chilling

Senior Hydroge

R. LEE DOOLEY NO. 0183 CERTIFIED YDROGEOLOGIS

Denis Brown, Shell Oil Products US, Carson

Inggen

175 BERNAI. ROAD SUITE 200 SAN JOSE, CALIFORNIA 95119 USA
PHONE 800.477.7411 / 800.447.7411 FAX 408.225.8506 www.deltaenv.com

SHELL QUARTERLY STATUS REPORT

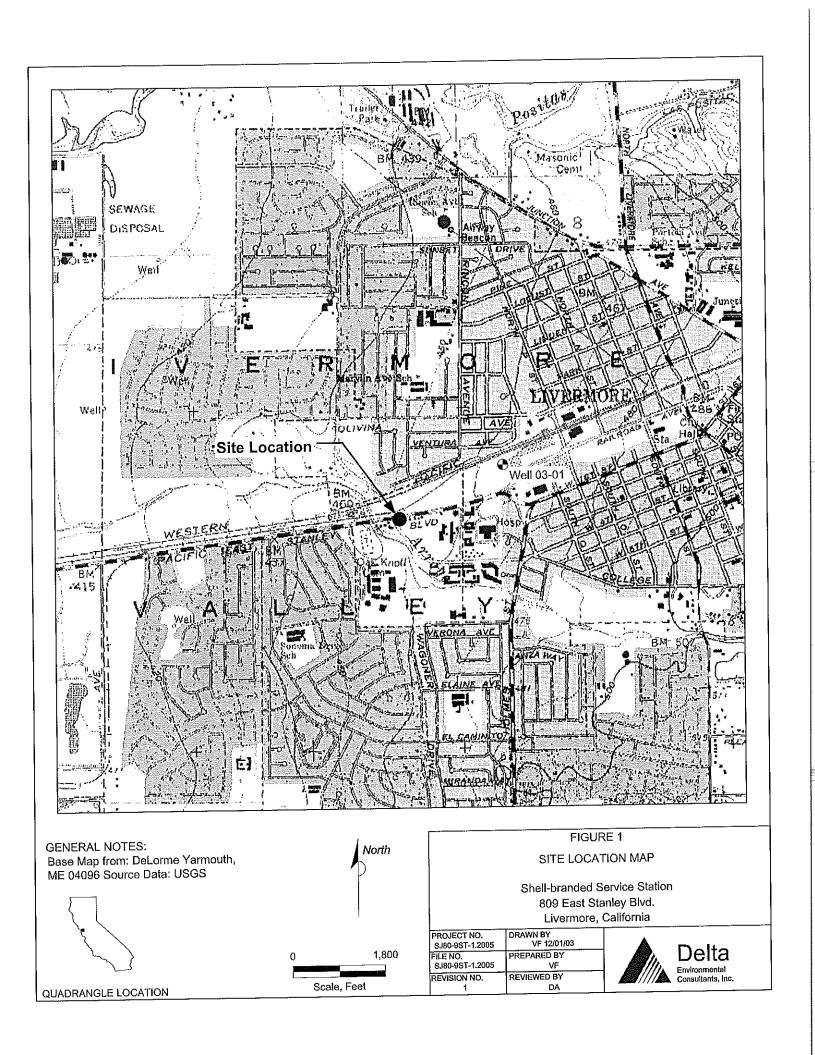
Station Address:	809 East Stanley Boulevard, Livermore, CA
DELTA Project No.	SJ80-9ST-1
SHELL Project Manager/Phone No.:	Denis Brown/(707) 865-0251
DELTA Site Manager/Phone No.:	Debbie Arnold/(408) 826-1873
Primary Agency/Regulatory ID No.:	ACHCSA/Mr. Jerry Wickham, PG, CHG
Other Agencies to Receive Copies:	None
WORK PERFORMED THIS QUARTER (F	OURTH - 2006):
1. Quarterly groundwater monitoring and sa	ampling. Submitted quarterly report.
2. Advanced site Borings SB-1 through SB in site soils.	-5 in order to investigate residual petroleum hydrocarbon source areas
WORK PROPOSED FOR NEXT QUARTE	r (First - 2007):
1. Suspend additional groundwater monitor	ing pending review of case closure request.
2. Destroy site wells pending agency concu	rrence of case closure status.
Current Phase of Project:	Groundwater monitoring.
Frequency of Sampling:	Semi-Annual
Frequency of Monitoring:	Semi-Annual
Is Separate Phase Hydrocarbon Present On-site	☐ Yes ⊠ No
(Well #'s):	
Cumulative SPH Recovered to Date:	NA
SPH Recovered This Quarter:	None
Sensitive Receptor(s) and Respective Direction(s):	Municipal Well 10-01 is located approximately 1,700 feet northeast of the site. The Arroyo Mocho Canal is located approximately 300 feet southwest of the site.
Current Remediation Techniques:	None
Permits for Discharge:	None
Approximate Depth to Groundwater:	19 feet below top of well casing
Groundwater Gradient	North-northeast at a gradient of less than 0.01 ft/ft, consistent with previous data
Current Agency Correspondence:	ACHCSA letter dated October 26, 2006 (request for submittal of semi-annual 1Q07 GWM Report)
Summary of Unusual Activity:	None, All parameters below detection for all wells.

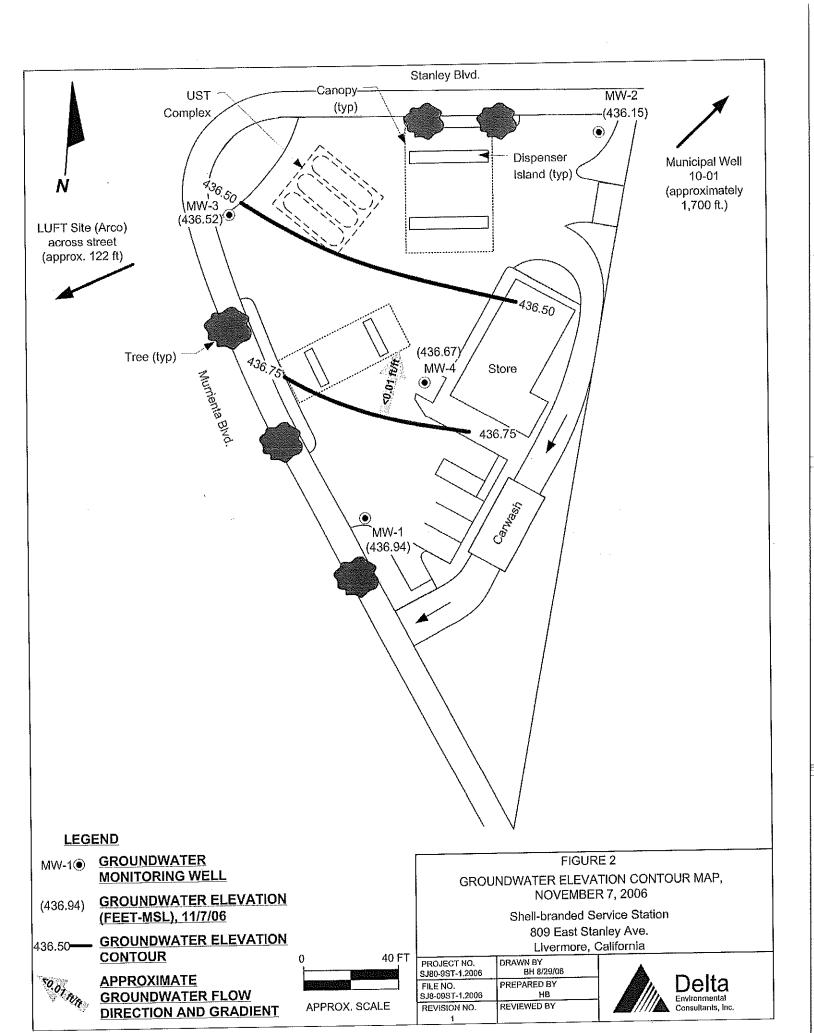
Lee Dooley Hydrogeologist (DELTA)

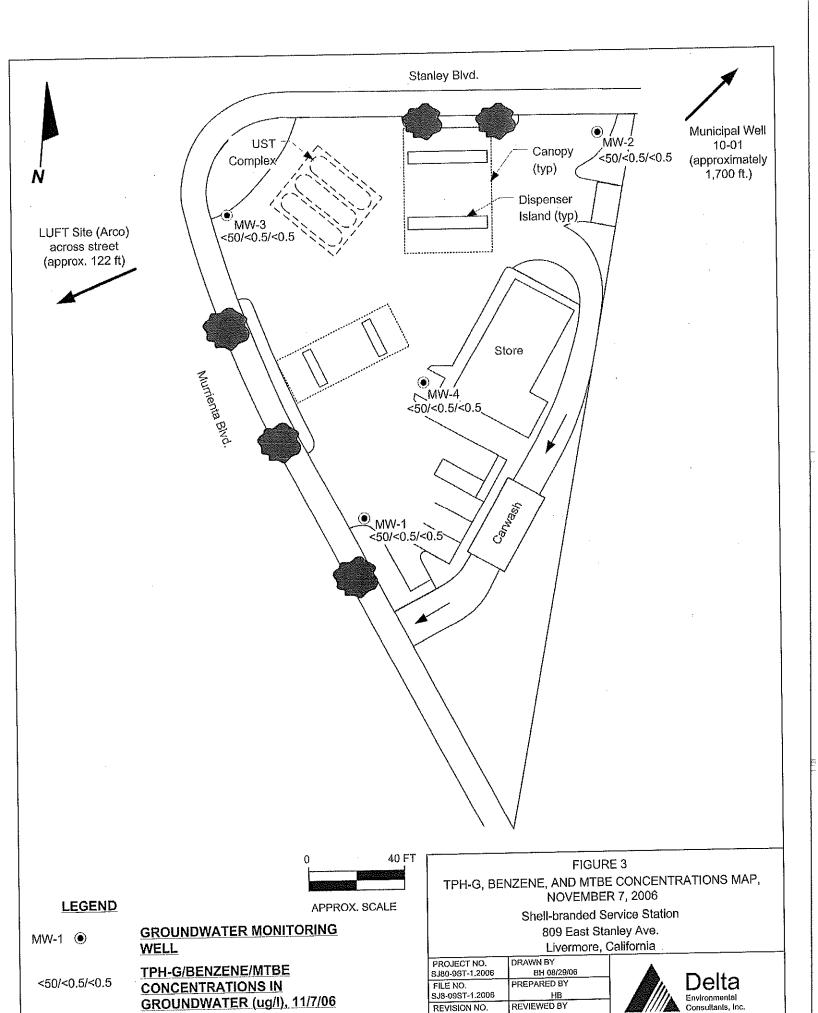
ATTACHED:

- Figure 1 Site Location Map
- Figure 2 Groundwater Elevation Contour Map, November 7, 2006
- Figure 3 TPH-G, Benzene, and MTBE Concentrations November 7, 2006
- Attachment A Groundwater Monitoring and Sampling Report, December 4, 2006

FIGURES







ATTACHMENT A

GROUNDWATER MONITORING AND SAMPLING REPORT, DECEMBER 4, 2006

BLAINE TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS SINCE 1985

December 4, 2006

Denis Brown Shell Oil Products US 20945 South Wilmington Avenue Carson, CA 90810

> Fourth Quarter 2006 Groundwater Monitoring at Shell-branded Service Station 809 East Stanley Boulevard Livermore, CA

Monitoring performed on November 7, 2006

Groundwater Monitoring Report 061107JD-1

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of WELL CONCENTRATIONS. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a fortyhour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

(408) 573-0555

LOS ANGELES

SAN DIEGO

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Mike Ninokata Project Manager

MN/ks

attachments: Cumulative Table of WELL CONCENTRATIONS

Certified Analytical Report

Field Data Sheets

ce: Debbie Arnold
Delta Environmental
175 Bernal Road, Suite 200
San Jose, CA 95119

WELL CONCENTRATIONS Shell-branded Service Station 809 East Stanley Boulevard Livermore, CA

							MTBE						Depth to	GW
Well ID	Date	ТРРН	В	T	E	X	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(MSL)	(ft.)	(MSL)									
MW-1	09/25/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA_
MW-1	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	455.49	20.06	435.43
MW-1	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	455.49	19.71	435.78
MW-1	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	455.49	18.05	437.44
MW-1	04/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	455.49	17.57	437.92
MW-1	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	455.49	18.76	436.73
MW-1	10/20/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	5.0	455.49	20.01	435.48
MW-1	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	455.49	16.58	438.91
MW-1	07/27/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	455.49	19.43	436.06
MW-1	01/06/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	455.49	17.20	438.29
MW-1	07/20/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA_	NA	NA	NA	455.49	17.69	437.80
MW-1	01/10/2006	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1,000	455.49	16.03	439.46
MW-1	07/28/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	NA _	455.49	19.51	435.98
MW-1	11/07/2006	<50	<0.500	<0.500	<0.500	<1.0	<0.500	<2.0	<2.0	<2.0	<5.0	455.49	18.55	436.94
											ĭ	1	1	1
MW-2	09/25/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA_	NA NA	NA NA
MW-2	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	454.84	20.40	434.44
MW-2	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	454.84	20.17	434.67
MW-2	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	454.84	18.30	436.54
MW-2	04/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	454.84	17.93	436.91
MW-2	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	454.84	19.01	435.83
MW-2	10/20/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	454.84	20.36	434.48
MW-2	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA NA	NA	NA_	454.84	16.99	437.85
MW-2	07/27/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA NA	NA	NA_	454.84	19.64	435.20
MW-2	01/06/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	454.84	17.60	437.24
MW-2	07/20/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA_	NA	NA NA	454.84	17.90	436.94

WELL CONCENTRATIONS Shell-branded Service Station 809 East Stanley Boulevard Livermore, CA

							МТВЕ						Depth to	GW
Well ID	Date	TPPH	В	T	E	×	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(MSL)	(ft.)	(MSL)
														1
MW-2	01/10/2006	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	24	454.84	16.27	438.57
MW-2	07/28/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	NA	454.84	19.59	435.25
MW-2	11/07/2006	<50	<0.500	<0.500	<0.500	<1.0	<0.500	<2.0	<2.0	<2.0	<5.0	454.84	18.69	436.15
														η
MW-3	09/25/2001	NA	<0.50	<0.50	<0.50	<0.50	3.6	<2.0	<2.0	<2.0	<50	NA	NA NA	NA
MW-3	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	454.87	19.95	434.92
MW-3	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	0.83	<2.0	<2.0	<2.0	<50	454.87	19.63	435.24
MW-3	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	454.87	17.90	436.97
MW-3	04/21/2003	<50	<0.50	<0.50	<0.50	<1.0	0.71	<2.0	<2.0	<2.0	<5.0	454.87	17.45	437.42
MW-3	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	0.69	<2.0	<2.0	<2.0	<5.0	454.87	18.69	436.18
MW-3	10/20/2003	<50	<0.50	<0.50	<0.50	<1.0	0.64	<2.0	<2.0	<2.0	<5.0	454.87	19.90	434.97
MW-3	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	454.87	16.50	438.37
MW-3	07/27/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	454.87	19.31	435.56
MW-3	01/06/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	454.87	17.15	437.72
MW-3	07/20/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	454.87	17.53	437.34
MW-3	01/10/2006	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	454.87	15.94	438.93
MW-3	07/28/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA NA	NA	NA	454.87	19.33	435.54
MW-3	11/07/2006	<50	<0.500	<0.500	<0.500	<1.0	<0.500	<2.0	<2.0	<2.0	<5.0	454.87	18.35	436.52
<u> </u>			<u> </u>								.,	-		
MW-4	09/25/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA .	NA NA
MW-4	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	456.24	21.15	435.09
MW-4	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	456.24	20.85	435.39
MW-4	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	456.24	19.15	437.09
MW-4	04/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	456.24	18.65	437.59
MW-4	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	456.24	19.87	436.37
MW-4	10/20/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	456.24	21.12	435.12

WELL CONCENTRATIONS Shell-branded Service Station 809 East Stanley Boulevard Livermore, CA

							MTBE		,				Depth to	GW
Well ID	Date	TPPH	в	Т	E	X	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
11011.72		(ug/L)	(MSL)	(ft.)	(MSL)									
	<u> </u>													
MW-4	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	456.24	17.65	438.59
MW-4	07/27/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	456.24	20.50	435.74
MW-4	01/06/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	456.24	18.29	437.95
MW-4	07/20/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	456.24	18.73	437.51
MW-4	01/10/2006	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	456.24	17.08	439.16
MW-4	07/28/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	NA	456.24	20.55	435.69
MW-4	11/07/2006	<50	<0.500	<0.500	<0.500	<1.0	<0.500	<2.0	<2.0	<2.0	<5.0	456.24	19.57	436.67

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.

MTBE = Methyl tertiary butyl ether

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

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

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

TBA = Tertiary butyl alcohol or tertiary butanol, analyzed by EPA Method 8260B

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

NA = Not applicable

Notes:

Survey data provided by KHM Environmental Management, Inc.

BLAINE TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS SINCE 1985

February 6, 2007

Randy Orlowski Shell Oil Products US 20945 S. Wilmington Ave. Carson, CA 90810

> First Quarter 2007 Groundwater Monitoring at Shell-branded Service Station 11590 Los Osos Valley Road San Luis Obispo, CA

Monitoring performed on January 17, 2007

Groundwater Monitoring Report 070117-MP-1

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to Crosby and Overton.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of WELL CONCENTRATIONS. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a fortyhour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

SACRAMENTO

LOS ANGELES

SAN DIEGO

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Lorin King

Project Manager

NS/np

attachments: Cumulative Table of WELL CONCENTRATIONS

Certified Analytical Report

Field Data Sheets

cc: Lee Dooley

Delta Environmental Consulting, Inc.

911 S. Primrose Ave., Suite K

Monrovia, CA 91016