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"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by:

Paul Supple
Environmental Business Manager



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Quarterly Groundwater Monitoring Progress Report Fourth Quarter 2007

**76 (Former BP) Service Station No.11126
1700 Powell Street
Emeryville, California 94608**

SECOR Project No.: 77BP.11126.01.0436 and 77CP.01731.40

Submitted to:

Mr. Steven Plunkett
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Submitted by:

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Prepared on behalf of:

Atlantic Richfield Company, a BP affiliated company
Mr. Paul Supple
Environmental Business Manager
P.O. Box 1257
San Ramon, California 94583

And

ConocoPhillips
Ms. Shelby Lathrop
76 Broadway
Sacramento, California 95818

December 19, 2007

DATE: December 19, 2007

**Atlantic Richfield Company, a BP affiliated company
and
ConocoPhillips**

QUARTERLY REPORT

Station Number:	11126
Site Address:	1700 Powell Street, Emeryville, California 95608
Atlantic Richfield Company, a BP affiliated company Contact:	Mr. Paul Supple Environmental Business Manager Atlantic Richfield Company P.O. Box 1257 San Ramon, California 94583
ConocoPhillips Contact	Ms. Shelby Lathrop ConocoPhillips 76 Broadway Sacramento, California 95818
Consulting Company:	SECOR International, Inc. – Ms. Catherine Francini
SECOR Project No.:	77BP.11126.01.0436 and 77CP.01731.40
Primary Agency/Contact:	Mr. Steven Plunkett Alameda County Environmental Health Department 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

WORK PERFORMED THIS QUARTER [Fourth – 2007]

1. Performed groundwater monitoring and sampling of wells on November 21, 2007.
2. SECOR submitted the *Quarterly Groundwater Monitoring Progress Report – Third Quarter 2007* on October 11, 2007.

WORK PROPOSED FOR NEXT QUARTER [First – 2008]

1. Groundwater monitoring and sampling event will be performed by SECOR.
2. Submit the *Quarterly Groundwater Monitoring Progress Report – Fourth Quarter 2007*

DISCUSSION

The site is located on the northwest corner of Powell Street and Christie Avenue in Emeryville, California (Figure 1), and is currently utilized as a retail gasoline service station. Three single-walled, fiberglass, gasoline underground storage tanks (USTs), associated product lines, two dispenser islands, a station building, and a convenience store are present at the site. The three unleaded gasoline USTs, consisting of one 12,000-gallon UST, one 10,000-gallon UST, and one 6,000-gallon UST, were installed in 1982 (State Water Resources Control Board [SWRCB], 1992).

The properties in the vicinity of the site are a mixture of industrial and commercial developments. South of the site and across Powell Street is Powell Street Plaza, a retail commercial development with a number of groundwater monitoring wells on-site and around its perimeter. Immediately east of Powell Street Plaza and approximately 1,000 feet (ft) southeast of the site are monitoring wells installed in the immediate vicinity of Harcros Pigments, located at 4650 Shell Mound Street. The area surrounding the site was historically used for industrial purposes before being developed into a shopping center. A summary of previous investigations and site history is included as Attachment A.

<u>Current Site Information</u>	
Current Phase of Project:	Groundwater Monitoring
Frequency of Monitoring and Sampling:	Quarterly, 11 monitoring wells (MW-1 through MW-11)
Is Free Product (FP) Present on Site?	No
Historic Range in Depth to Water, Q4-1993 to Q2-2007:	2.50 ft to 10.46 ft below top of casing (TOC)
Current Remediation Techniques:	Natural Attenuation

<u>Current Quarter Monitoring Data</u>	
Wells Monitored and Sampled:	MW-1 through MW-11
Sampling Date	November 21, 2007
Depth to Groundwater (DTW, ft below TOC)	3.70 ft in MW-1 to 10.64 ft below TOC in MW-11
Average Change in Groundwater Elevation Since Last Event:	0.19 ft increase
Groundwater Flow Direction and Gradient:	Southwest at 0.025 foot per foot (ft/ft)
<u>Current Quarter Analytical Data</u>	
Minimum/Maximum Gasoline Range Organics (GRO) Concentrations	Not detected (ND)<50 micrograms per liter (µg/L) in three wells/27,000 µg/L in MW-2
Minimum/Maximum Benzene Concentrations	ND<0.50 µg/L in five wells/4,500 µg/L in MW-2
Minimum/Maximum Methyl tertiary Butyl Ether (MtBE) Concentrations	ND<0.50 µg/L in MW-11/5,200 µg/L in MW-2
Minimum/Maximum Tertiary Butyl Alcohol (TBA) Concentrations	ND<5.0 µg/L in two wells/38,000 µg/L in MW-4

MONITORING AND SAMPLING PROCEDURES

The groundwater monitoring well network at and around the site consists of 11 wells (MW-1 through MW-11). Depth to water levels are measured and groundwater samples are collected from the wells on a quarterly basis. During the fourth quarter 2007, groundwater samples were

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collected on November 21, 2007. Field notes from the November 21, 2007 monitoring and sampling event and SECOR's standard groundwater monitoring and sampling procedures are included as Attachment B.

GROUNDWATER SAMPLE ANALYSES

Groundwater samples were submitted to TestAmerica Analytical Laboratories Cooperation (TestAmerica) for analysis of GRO, benzene, toluene, ethylbenzene, and xylenes (BTEX), fuel oxygenates (MtBE, tertiary amyl methyl ether [TAME], di-isopropyl ether [DIPE], ethyl tertiary butyl ether [EtBE], TBA, and ethanol), and lead scavengers 1,2-dichloroethane (1,2-DCA) and ethylene dibromide (EDB) by U.S. Environmental Protection Agency (EPA) Method 8260B. Additional groundwater samples were collected from well MW-3, and were submitted for analysis of diesel range organics (DRO) by EPA Method 8015B, and total oil and grease (TOG) by EPA Method 1664A. A certified laboratory analytical report and chain-of-custody documentation are included as Attachment C.

GROUNDWATER SAMPLE RESULTS AND DISTRIBUTION

During the fourth quarter 2007, depth to groundwater within the wells ranged from 3.70 ft below TOC in well MW-1 to 10.64 ft below TOC in well MW-11. Historical depth to groundwater levels have ranged between approximately 2.50 feet and 10.46 feet below TOC. On November 21, 2007, the direction of groundwater flow beneath and in the site vicinity was toward the southwest at a hydraulic gradient of 0.025 ft/ft, which was generally consistent with the historical groundwater flow direction and gradient since 2003. Prior to 2003, the historical groundwater flow direction was reportedly variable since 2001; however, the groundwater flow patterns were most consistently toward the south and southwest. Current and historical depth to groundwater measurements, calculated groundwater elevation data, and analytical data are presented in Tables 1 and 2. Groundwater elevation data were used to construct a potentiometric surface map, which is included as Figure 1. Analytical data were used to construct GRO, benzene, MtBE, and TBA isoconcentration contour maps included as Figures 2 through 5. Current and historical groundwater gradient data are presented in Table 3 and historical groundwater flow direction is depicted in a rose diagram as Figure 6. Well construction details are presented in Table 4.

Contaminant Concentrations

Evaluation of recent and historical groundwater analytical data indicates that the highest concentrations of GRO, BTEX, MtBE, TAME, and TBA have been detected in wells located in the immediate vicinity (MW-1 and MW-9) and northwest of the USTs (MW-2). Based on the generally southwesterly groundwater flow direction reported over previous sampling events, elevated concentrations of GRO have been present downgradient in MW-5, and elevated concentrations of TBA have been detected in well MW-4.

Dissolved GRO, Benzene, and MtBE

During the fourth quarter 2007 monitoring and sampling event, well MW-2 contained the greatest concentrations of GRO, benzene, and MtBE at 27,000 µg/L, 4,500 µg/L, and 5,200 µg/L, respectively. Additionally, concentrations of GRO were detected on-site in wells

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MW-1 (1,800 µg/L), MW-7 (55 µg/L), MW-8 (350 µg/L), and MW-9 (4,600 µg/L) and in well MW-5 (4,700 µg/L), located south of the site. Benzene was additionally detected on-site in wells MW-1 (67 µg/L) and MW-9 (790 µg/L) during the current quarter. With the exception of well MW-4, MtBE was detected in each of the on-site wells during the fourth quarter 2007 with the highest concentrations detected in well MW-2 (5,200 µg/L). Additionally, MtBE was detected off-site in wells MW-5 (11 µg/L) and MW-10 (2.2 µg/L).

Dissolved Other Fuel Oxygenates and Lead Scavengers

TBA was detected in each on-site well and off-site in MW-5 up to a maximum concentration of 38,000 µg/L in MW-4 during the fourth quarter 2007. Tame was detected in wells MW-1 (2.7 µg/L), MW-2 (160 µg/L), MW-6 (1.0 µg/L), MW-7 (0.87 µg/L), and MW-9 (42 µg/L) during the fourth quarter 2007. Other oxygenates (DIPE, EtBE, and ethanol) and lead scavengers (1,2-DCA, and EDB) were not detected at or above laboratory method reporting limits (MRLs).

Dissolved DRO and TOG

Well MW-3 has historically been analyzed for DRO and TOG since 1992. Consistent with historical data, DRO was detected in well MW-3 at a concentration of 1,600 µg/L, while TOG was not detected at or above laboratory MRLs during the fourth quarter 2007 monitoring and sampling event.

PLUME STATUS

Other than MtBE and TBA, the lateral extent of impacted groundwater has been defined to the southwest by non-detectable levels of petroleum hydrocarbons and fuel oxygenates. Low to non-detectable levels of MtBE are present in wells MW-10 and MW-11. The lateral extent of dissolved GRO and BTEX in groundwater has been delineated in the westerly direction by low to non-detectable concentrations in wells MW-3, MW-6, and MW-7. The lateral extent of affected groundwater has not been delineated north of well MW-8, and to the east and southeast of the site. The presence of dissolved DRO has not been delineated in the vicinity of well MW-3. Review of historical investigations indicates that the vertical extent of dissolved contaminants has not been investigated beyond the maximum completed depth of the wells at 17 feet below ground surface (bgs).

PURGE AND RINSATE WATER DISPOSAL

Approximately 44 gallons of groundwater generated during the fourth quarter 2007 was pumped into a SECOR truck-mounted water tank. The water was then transferred into 55-gallon, steel, California Department of Transportation (DOT)-approved drums pending waste characterization and transport by Belshire Environmental Services Inc. to DeMenno Kerdoon in Compton California for disposal. The waste manifest for the disposal of the drum is not available at this time and will be included in SECOR's *Quarterly Groundwater Monitoring Progress Report – Fourth Quarter 2007*.

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LIMITATIONS

This report was prepared in accordance with the scope of work outlined in SECOR's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of Atlantic Richfield Company, a BP affiliated company and ConocoPhillips, for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to SECOR. To the extent that this report is based on information provided to SECOR by third parties, SECOR may have made efforts to verify this third party information, but SECOR cannot guarantee the completeness or accuracy of this third party information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by SECOR.

Sincerely,
SECOR International Incorporated

Prepared by:



Kimber Collins
Project Scientist

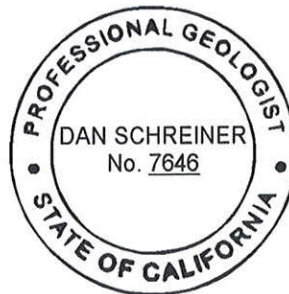
All information, conclusions, and recommendations provided by SECOR in this document regarding the site at 1700 Powell Street, Emeryville, California has been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Approver:



Dan Schreiner, P.G.
Senior Geologist

Date: December 20, 2007



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ATTACHMENTS

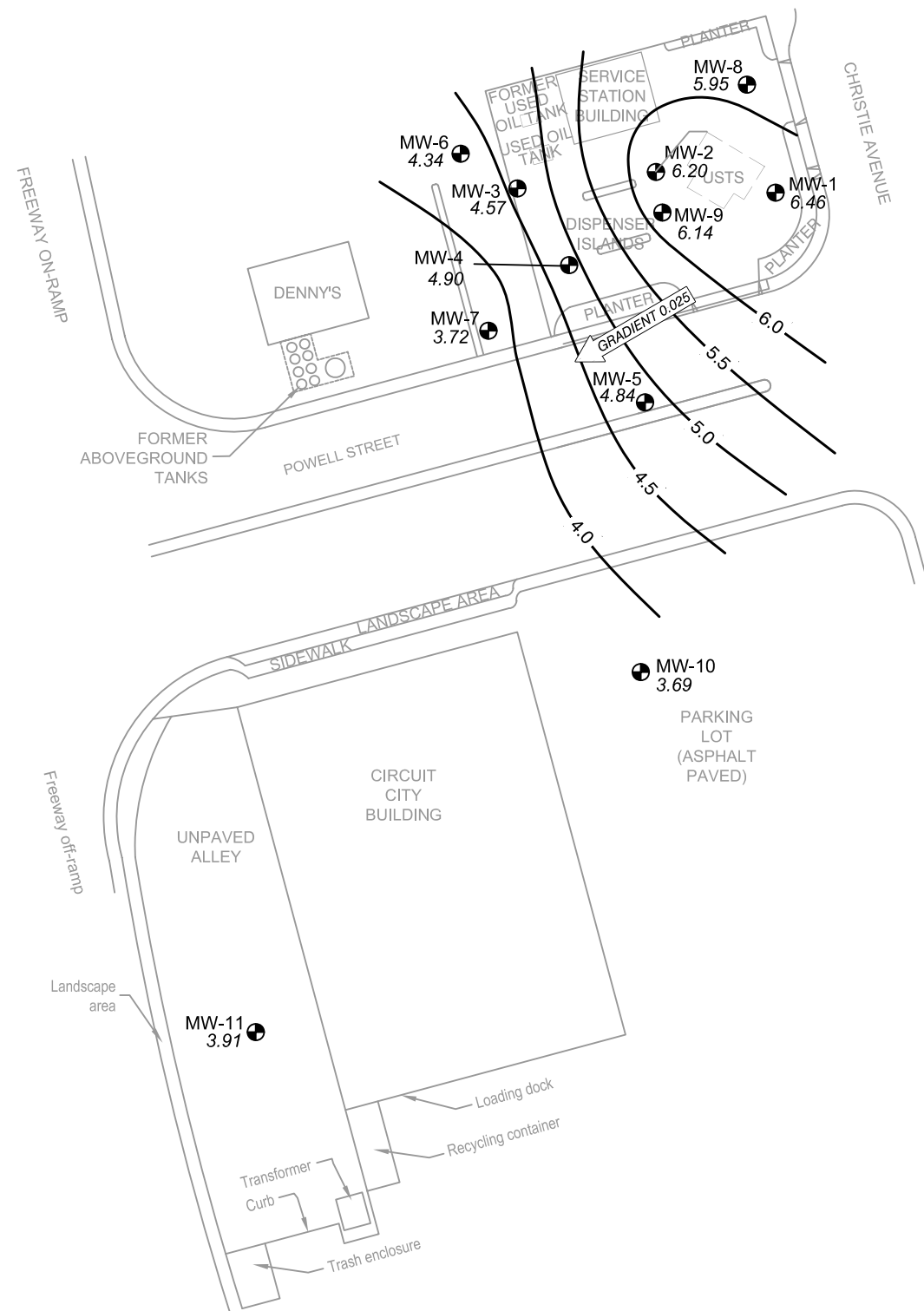
Figure 1 – Groundwater Elevation Contour Map – November 21, 2007
Figure 2 – GRO Isoconcentration Contour Map – November 21, 2007
Figure 3 – Benzene Isoconcentration Contour Map – November 21, 2007
Figure 4 – MtBE Isoconcentration Contour Map – November 21, 2007
Figure 5 – TBA Isoconcentration Contour Map – November 21, 2007
Figure 6 – Groundwater Flow Direction Rose Diagram

Table 1 – Current Groundwater Monitoring and Analytical Data
Table 2 – Historical Groundwater Monitoring and Analytical Data
Table 3 – Groundwater Flow Direction and Hydraulic Gradient Data
Table 4 – Well Construction Details

Attachment A – Previous Investigations and Site History Summary
Attachment B – Monitoring and Sampling Field Notes and SECOR's Standard Groundwater
Monitoring and Sampling Procedures
Attachment C – Certified Laboratory Analytical Reports and Chain-of-Custody Documentation

cc: Mr. Paul Supple, Atlantic Richfield Company, a BP affiliated Company (Electronic Copy
Uploaded to Enfos)
Ms. Shelby Lathrop, ConocoPhillips (Electronic Copy Uploaded to LiveLink)

FIGURES



LEGEND:


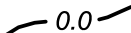
- MW-1 GROUNDWATER MONITORING WELL LOCATION
- APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)
- GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL)
- 0.0 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

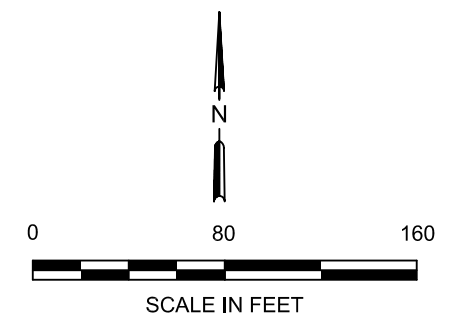
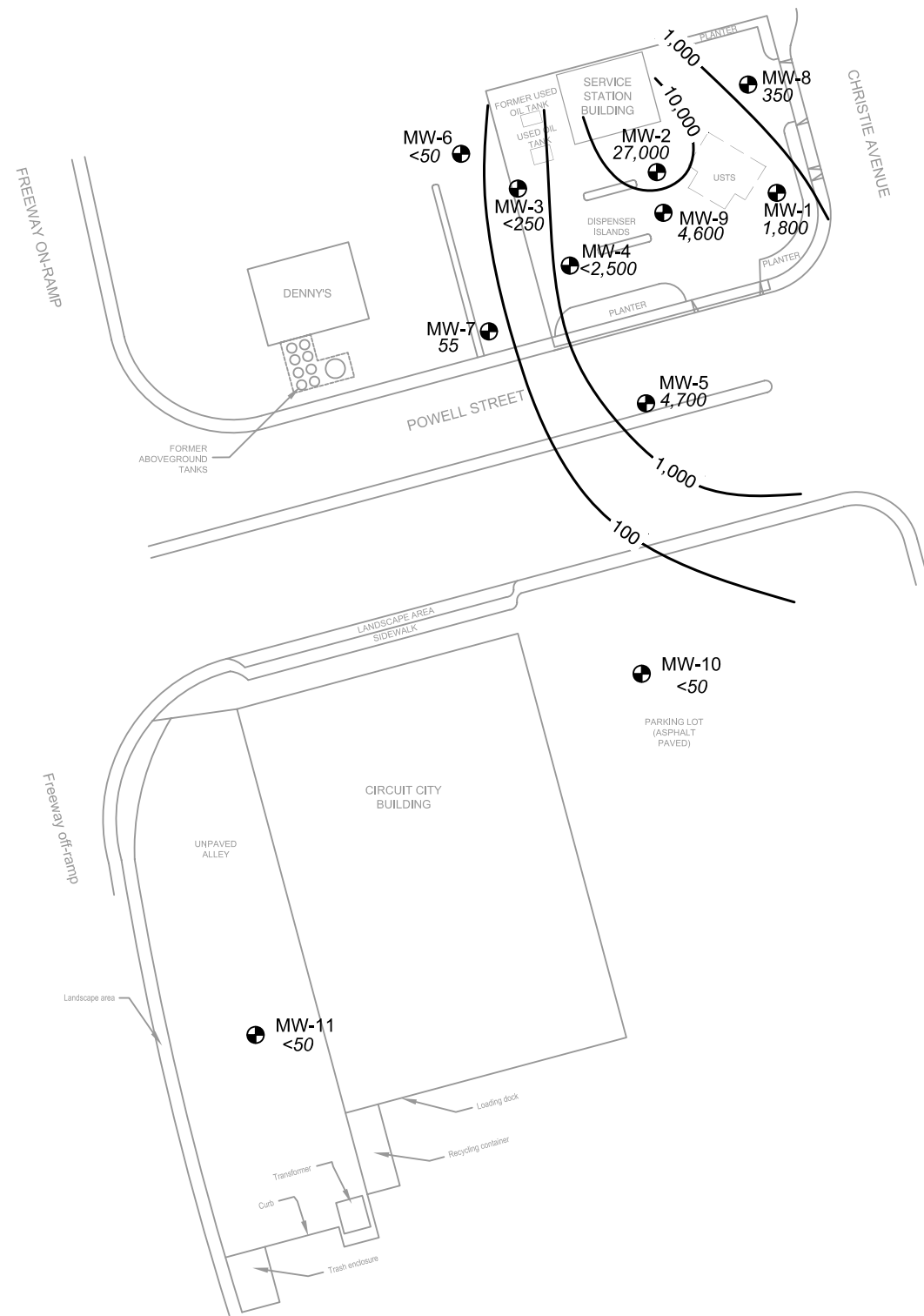
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SITE DIMENSIONS AND FIGURES FACILITY LOCATIONS NOT VERIFIED.

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 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/ 861-0430 (FAX)	FOR:	76 (FORMER BP) SERVICE STATION NO. 11126 1700 POWELL STREET EMERYVILLE, CALIFORNIA		GROUNDWATER ELEVATION CONTOUR MAP NOVEMBER 21, 2007	FIGURE:	1
	JOB NUMBER:	DRAWN BY:	CHECKED BY:		APPROVED BY:	
	77BP.11126.01 77CP.01731.40	M. RAMIREZ/STA	Kimber C.	Brad S.	12/14/07	


LEGEND:

- MW-1  GROUNDWATER MONITORING WELL
-  0.0 GRO ISOCONCENTRATION CONTOUR
- 0.0 GRO CONCENTRATION ($\mu\text{g/L}$)
- GRO GASOLINE RANGE ORGANICS
- $\mu\text{g/L}$ MICROGRAMS PER LITER


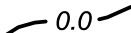


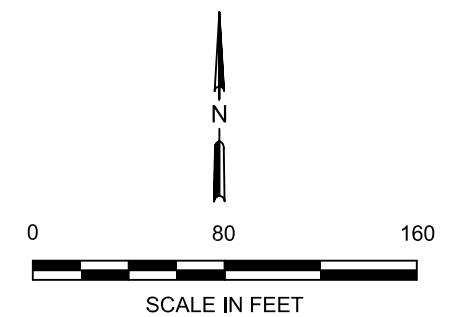
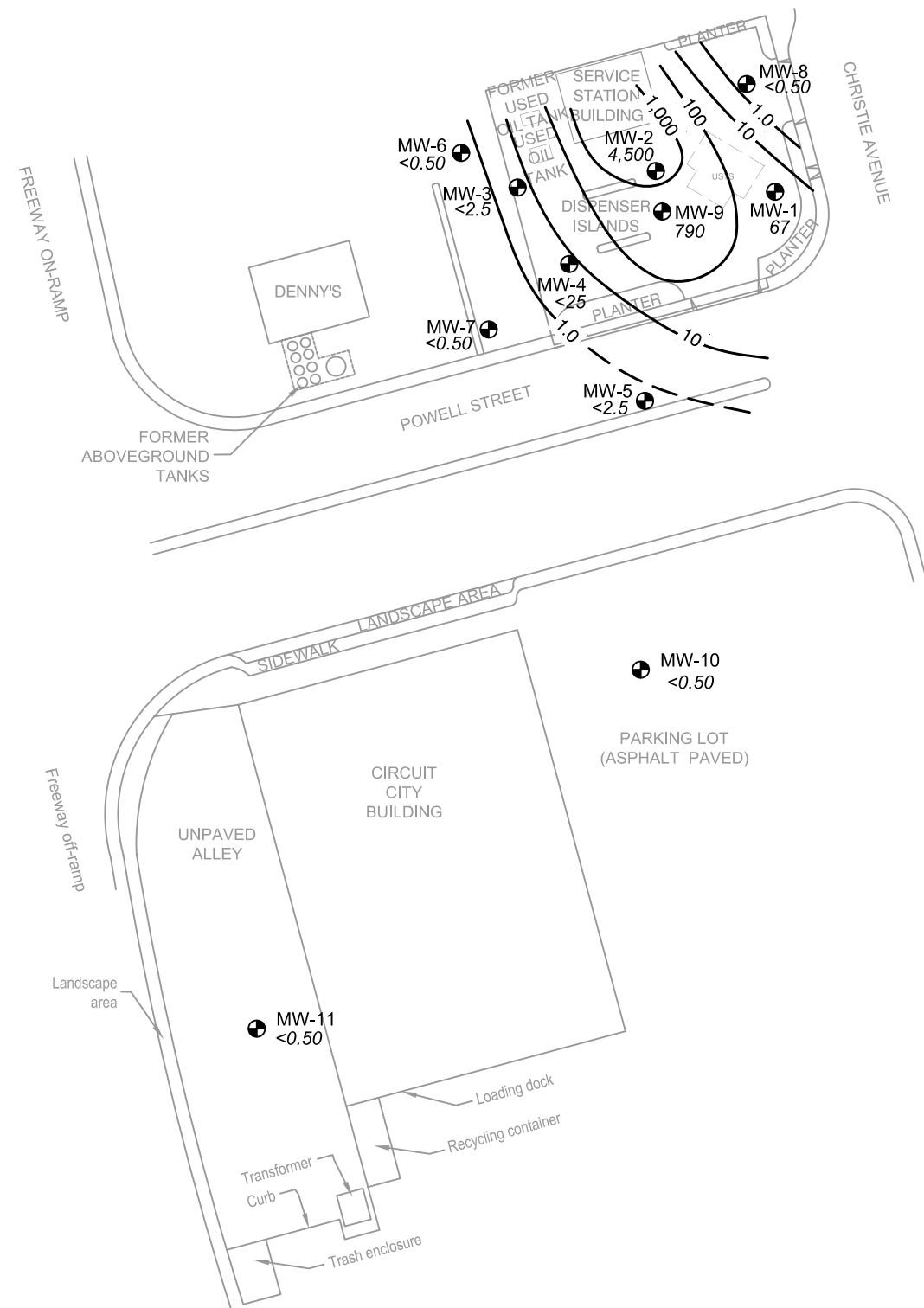
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	JOB NUMBER: 77BP.11126.01 77CP.01731.40	DRAWN BY: M. RAMIREZ/STA	CHECKED BY: Kimber C.	APPROVED BY: Brad S.


LEGEND:

- MW-1  GROUNDWATER MONITORING WELL
-  0.0 BENZENE ISOCONCENTRATION CONTOUR
- 0.0 BENZENE CONCENTRATION ($\mu\text{g/L}$)
- $\mu\text{g/L}$ MICROGRAMS PER LITER


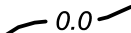


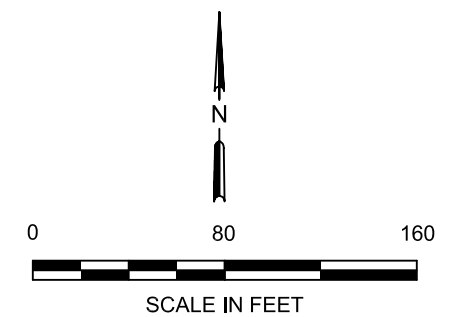
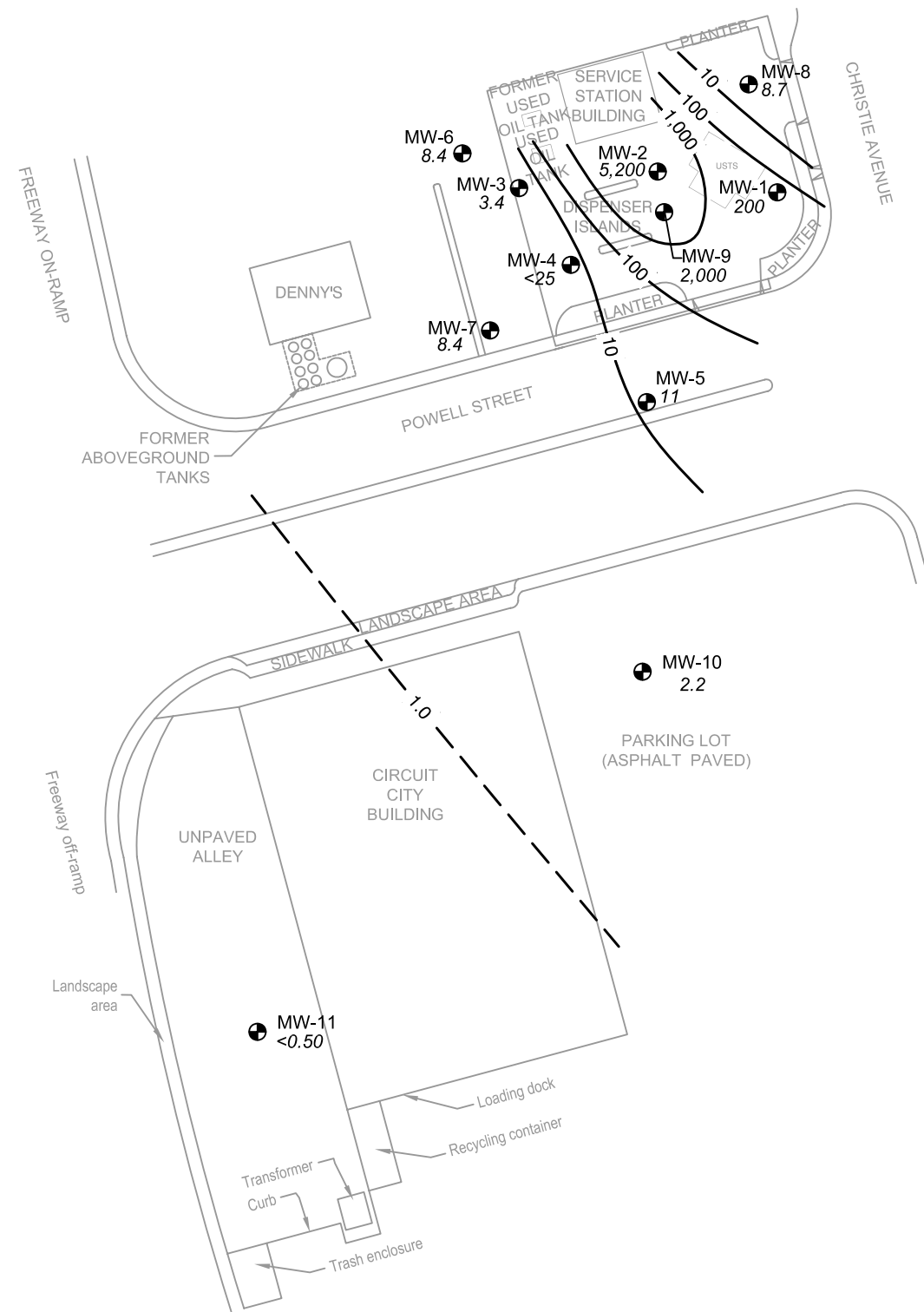
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	JOB NUMBER: 77BP.11126.01 77CP.01731.40	DRAWN BY: M. RAMIREZ/STA	CHECKED BY: Kimber C.	APPROVED BY: Brad S.	DATE: 12/14/07


LEGEND:

- MW-1  GROUNDWATER MONITORING WELL
-  0.0 MTBE ISOCONCENTRATION CONTOUR
- 0.0 MTBE CONCENTRATION (µg/L)
- MTBE METHYL TERTIARY BUTYL ETHER
- µg/L MICROGRAMS PER LITER


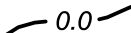


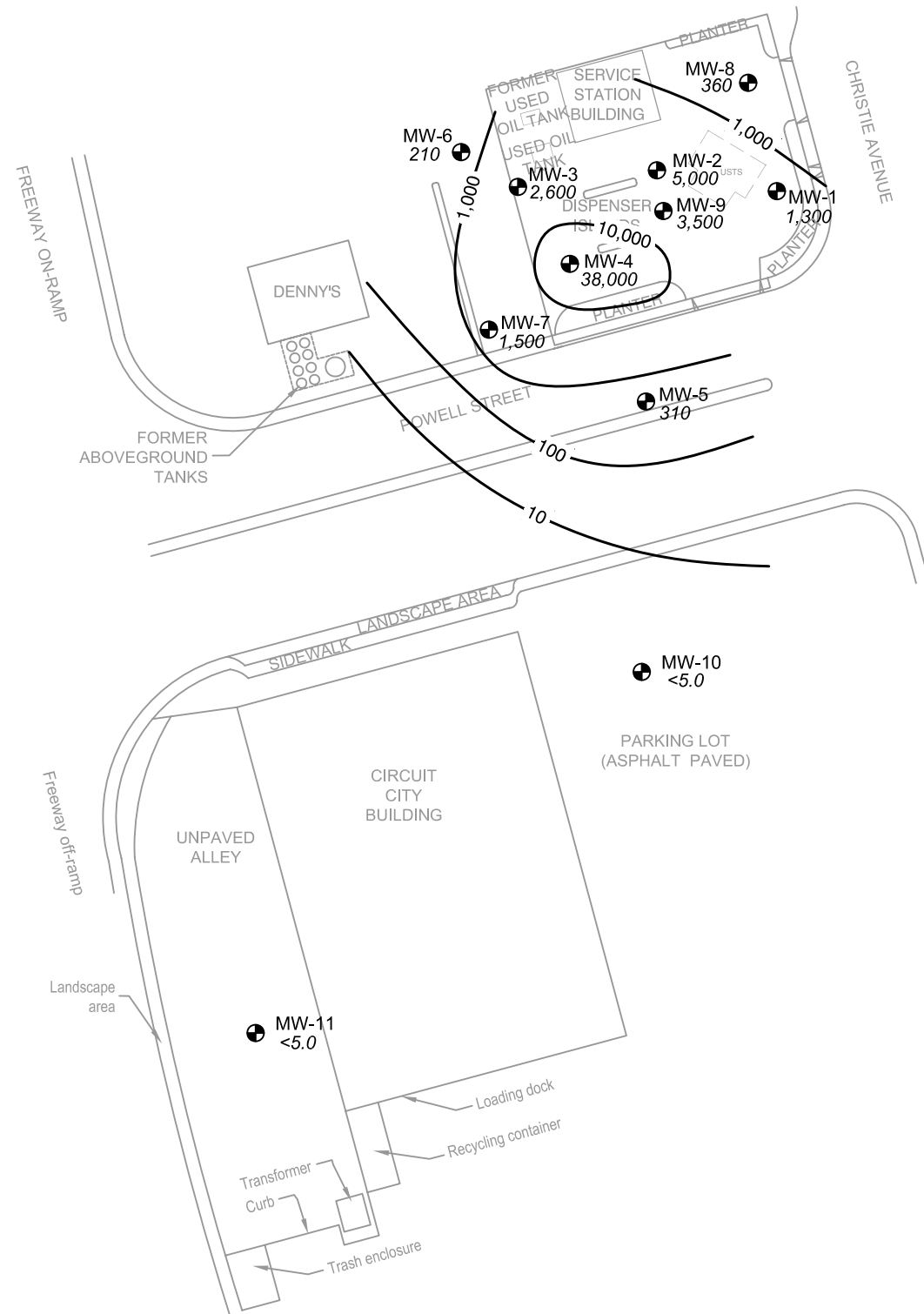
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	JOB NUMBER: 77BP.11126.01 77CP.01731.40	DRAWN BY: M. RAMIREZ/STA	CHECKED BY: Kimber C.	APPROVED BY: Brad S.	DATE: 12/14/07

LEGEND:

- MW-1  GROUNDWATER MONITORING WELL
- 0.0  TBA ISOCONCENTRATION CONTOUR
- 0.0 TBA CONCENTRATION (µg/L)
- TBA TERTIARY BUTYL ALCOHOL
- µg/L MICROGRAMS PER LITER



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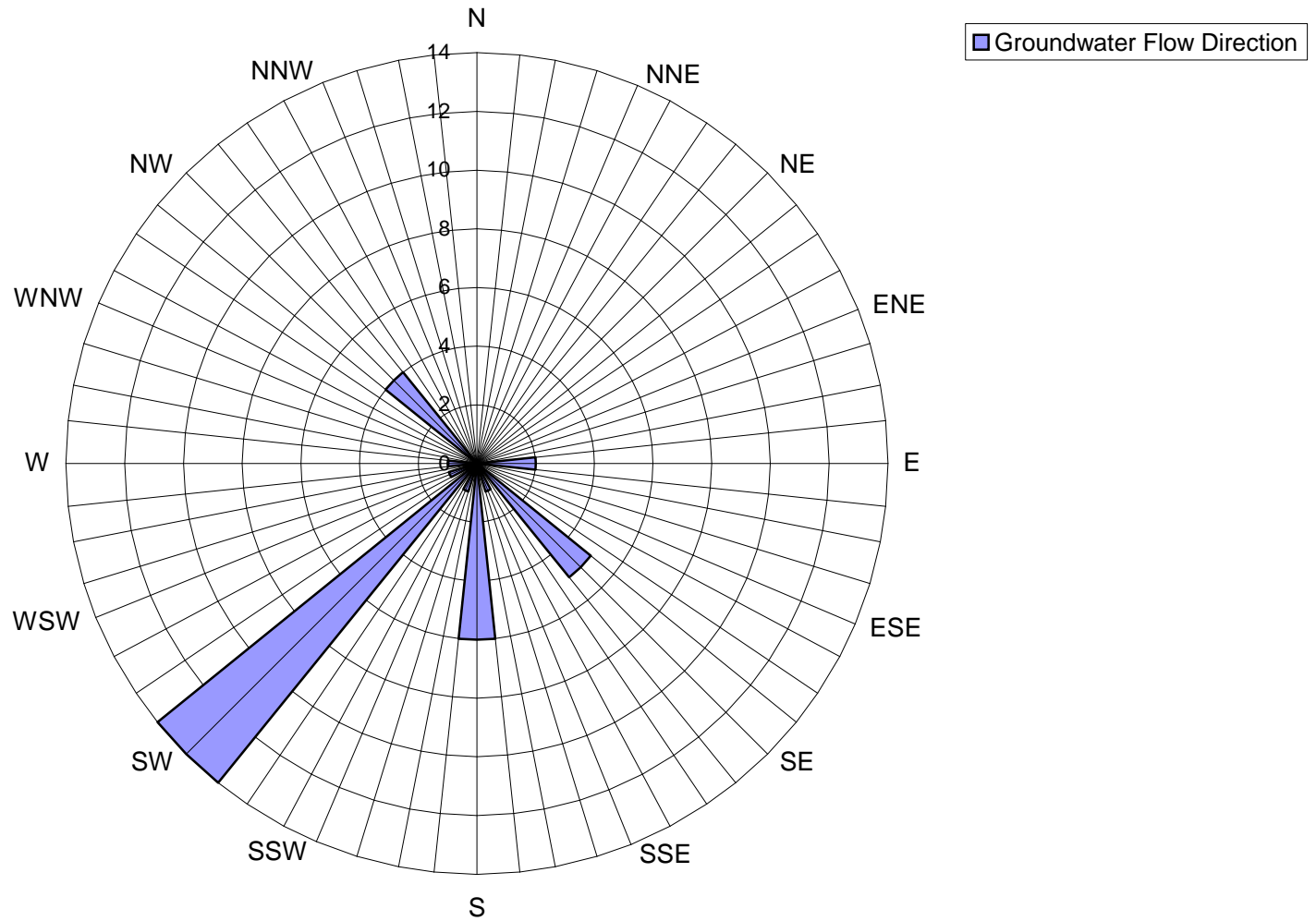
 SECOR 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400 / 861-0430 (FAX)	FOR:	76 (FORMER BP) SERVICE STATION NO. 11126 1700 POWELL STREET EMERYVILLE, CALIFORNIA		TBA ISOCONCENTRATION CONTOUR MAP NOVEMBER 21, 2007	FIGURE: <h1>5</h1>				
	JOB NUMBER:	77BP.11126.01 77CP.01731.40	DRAWN BY:			M. RAMIREZ/STA	CHECKED BY:	Kimber C.	APPROVED BY:

FIGURE 6
Groundwater Flow Direction Rose Diagram
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, California

Legend:

Each concentric gridline represents the number of monitoring events.

Diagram includes data from the First Quarter 2001 through the Fourth Quarter 2007.



TABLES

TABLE 1
Current Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	D.O. (mg/L)	Comments	
MW-1	11/21/07		10.16	3.70	0.00	6.46	1,800	-	-	67	6.2	3.5	12	200	1,300	<4.0	<2.0	2.7	<1,000	<2.0	<2.0	-		
MW-2	11/21/07		11.39	5.19	0.00	6.20	27,000	-	-	4,500	220	1,600	2,800	5,200	5,000	<100	<50	160	<25,000	<50	<50	-		
MW-3	11/21/07		10.73	6.16	0.00	4.57	<250	1,600	<2.0	<2.5	<2.5	<2.5	<5.0	3.4	2,600	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-		
MW-4	11/21/07		10.58	5.68	0.00	4.90	<2,500	-	-	<25	<25	<25	<50	<25	38,000	<50	<25	<25	<13,000	<25	<25	-		
MW-5	11/21/07		10.18	5.34	0.00	4.84	4,700	-	-	<2.5	<2.5	<2.5	<5.0	11	310	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-		
MW-6	11/21/07		11.01	6.67	0.00	4.34	<50	-	-	<0.50	<0.50	<0.50	<1.0	8.4	210	<1.0	<0.50	1.0	<250	<0.50	<0.50	-		
MW-7	11/21/07		10.11	6.39	0.00	3.72	55	-	-	<0.50	<0.50	<0.50	<1.0	8.4	1,500	<1.0	<0.50	0.87	<250	<0.50	<0.50	-		
MW-8	11/21/07		11.08	5.13	0.00	5.95	350	-	-	<0.50	<0.50	<0.50	<1.0	8.7	360	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-		
MW-9	11/21/07		10.55	4.41	0.00	6.14	4,600	-	-	790	<13	97	34	2,000	3,500	<25	<13	42	<6,300	<13	<13	-		
MW-10	11/21/07		12.53	8.84	0.00	3.69	<50	-	-	<0.50	<0.50	<0.50	<1.0	2.2	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-		
MW-11	11/21/07		14.55	10.64	0.00	3.91	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-		
QCTB	11/21/07		-	-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	

Notes:

- GRO = Gasoline range organics
- DRO = Diesel range organics
- TOG = Total petroleum hydrocarbons as oil and grease
- B = Benzene
- T = Toluene
- E = Ethylbenzene
- X = Total xylenes
- MTBE = Methyl tert-butyl ether
- TBA = Tert-butyl alcohol
- DIPE = Di-isopropyl ether
- ETBE = Ethyl tert-butyl ether
- TAME = Tert-amyl methyl ether
- 1,2-DCA = 1,2-Dichloroethane
- EDB = 1,2-Dibromoethane
- D.O. = Dissolved Oxygen; rounded to the nearest tenth
- SPH = Separate-phase hydrocarbons
- TOC = Top of casing (surveyed)
- Calc. GW Elev. = Calculated groundwater elevation = TOC - Depth to Water + 0.75*(Measured SPH Thickness); assuming a specific gravity of 0.75 for SPH
- ft-MSL = feet above mean sea level
- mg/L = Milligrams per liter
- µg/L = Micrograms per liter
- < = Analyte was not detected above the specified method detection limit (MDL); except after 2006 Quarter 2 where reporting limits are used.
- = Not measured or analyzed

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments
MW-1	11/04/92		7.76	4.96	0.00	2.80	5,300	-	-	1,100	480	<0.50	1,500	-	-	-	-	-	-	-	-	-	-	-
	10/12/93			5.26	0.00	2.50	3,600	-	-	970	71	100	550	6,111	-	-	-	-	-	-	-	-	-	-
	02/15/94			4.98	0.00	2.78	17,000	-	-	4,200	510	360	1,600	5,495	-	-	-	-	-	-	-	-	-	3.9
	05/11/94			4.55	0.00	3.21	5,500	-	-	2,900	37	56	64	705	-	-	-	-	-	-	-	-	-	8.0
	08/01/94	DUP	-	-	-	-	16,000	-	-	3,600	750	510	2,800	9,800	-	-	-	-	-	-	-	-	-	-
	08/01/94		7.76	5.51	0.00	2.25	15,000	-	-	3,600	740	510	2,800	9,718	-	-	-	-	-	-	-	-	-	2.9
	10/18/94	DUP	-	-	-	-	16,000	-	-	1,900	64	170	950	-	-	-	-	-	-	-	-	-	-	-
	10/18/94		7.76	5.11	0.00	2.65	16,000	-	-	1,800	61	160	890	15,668	-	-	-	-	-	-	-	-	-	2.9
	01/13/95	DUP	-	-	-	-	590	-	-	88	0.70	<0.50	55	-	-	-	-	-	-	-	-	-	-	-
	01/13/95		7.76	3.05	0.00	4.71	220	-	-	7.0	<0.50	1.0	23	-	-	-	-	-	-	-	-	-	-	6.6
	04/13/95			3.84	0.00	3.92	9,300	-	-	4,000	300	200	950	-	-	-	-	-	-	-	-	-	-	7.7
	07/11/95			3.60	0.00	4.16	15,000	-	-	2,200	84	<25	2,500	-	-	-	-	-	-	-	-	-	-	8.8
	11/02/95			4.58	0.00	3.18	19,000	-	-	920	<100	<100	430	52,000	-	-	-	-	-	-	-	-	-	7.3
	02/05/96			4.43	0.00	3.33	4,600	-	-	1,400	330	54	247	8,700	-	-	-	-	-	-	-	-	-	3.2
	04/24/96			4.00	0.00	3.76	2,000	-	-	510	33	61	228	4,500	-	-	-	-	-	-	-	-	-	7.5
	07/15/96			4.30	0.00	3.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	07/16/96	DUP	-	-	-	-	12,000	-	-	2,800	160	390	1,610	63,000	-	-	-	-	-	-	-	-	-	-
	07/16/96		7.76	-	-	-	12,000	-	-	2,800	170	390	1,630	64,000	-	-	-	-	-	-	-	-	-	7.9
	07/30/96			4.64	0.00	3.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	08/12/96			-	-	-	11,000	-	-	2,500	160	<10	1,740	440,000	-	-	-	-	-	-	-	-	-	7.0
	11/04/96			5.98	0.00	1.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/05/96			-	-	-	53,000	-	-	1,300	43	100	349	42,000	-	-	-	-	-	-	-	-	-	6.6
	05/17/97			4.65	0.00	3.11	52,000	-	-	1,958	55	305	1,216	140,198	-	-	-	-	-	-	-	-	-	5.7
	08/11/97			4.90	0.00	2.86	25,000	-	-	540	6.7	<5.0	57	360,000	-	-	-	-	-	-	-	-	-	7.9
	11/17/97			6.12	0.00	1.64	93,000	-	-	1,200	31	180	40	400,000	-	-	-	-	-	-	-	-	-	7.6
	01/29/98			4.90	0.00	2.86	4,800	-	-	320	24	52	20	<50	-	-	-	-	-	-	-	-	-	6.6
	06/22/98			4.62	0.00	3.14	63,000	-	-	180	<5.0	15	69	57,000	-	-	-	-	-	-	-	-	-	6.0
	12/30/98			5.41	0.00	2.35	22,000	-	-	2,500	24	120	400	15,000	-	-	-	-	-	-	-	-	-	-
	03/09/99			3.40	0.00	4.36	16,000	-	-	2,000	84	290	510	13,000	-	-	-	-	-	-	-	-	-	-
	06/23/99			4.60	0.00	3.16	9,600	-	-	4,500	21	160	260	24,000	-	-	-	-	-	-	-	-	-	-
	09/23/99			4.21	0.00	3.55	3,800	-	-	1,600	32	150	240	7,100	-	-	-	-	-	-	-	-	-	-
	12/28/99			4.10	0.00	3.66	3,400	-	-	<2,200	17	53	130	5,500	-	-	-	-	-	-	-	-	-	-
	03/22/00			5.51	0.00	2.25	6,400	-	-	1,100	45	190	330	4,900	-	-	-	-	-	-	-	-	-	-
	05/26/00			4.79	0.00	2.97	110,000	-	-	700	44	140	250	320,000	-	-	-	-	-	-	-	-	-	-
	09/06/00			5.19	0.00	2.57	5,600	-	-	1,000	13	57	90	19,000	-	-	-	-	-	-	-	-	-	-
	09/15/00			5.73	0.00	2.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/11/00			5.82	0.00	1.94	5,500	-	-	1,160	47	155	292	3,900	-	-	-	-	-	-	-	-	-	-
	03/29/01	INA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	06/27/01			5.49	0.00	2.27	6,100	-	-	1,200	13	17	78	1,780	-	-	-	-	-	-	-	-	-	-
	09/19/01			6.19	0.00	1.57	1,800	-	-	102	<12.5	<12.5	<37.5	1,090	-	-	-	-	-	-	-	-	-	-
	12/28/01			5.27	0.00	2.49	4,000	-	-	540	12	20	65	1,120	-	-	-	-	-	-	-	-	-	-
	03/12/02			5.68	0.00	2.08	3,700	-	-	491	8.4	12	27	1,020	-	-	-	-	-	-	-	-	-	-
	06/13/02			5.54	0.00	2.22	1,900	-	-	255	<12.5	<12.5	<25	6,490	-	-	-	-	-	-	-	-	-	-
	09/06/02			5.56	0.00	2.20	1,100	-	-	170	5.1	2.2	20	550	-	-	-	-	-	-	-	-	-	-
	12/13/02			5.45	0.00	2.31	2,700	-	-	610	10	18	67	470	-	-	-	-	-	-	-	-	-	-
	02/19/03			3.00	0.00	4.76	1,500	-	-	180	<5.0	<5.0	15	610	-	-	-	-	-	-	-	-	-	-

EPA 8015B/8021B used

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments	
MW-1	06/06/03		7.76	5.52	0.00	2.24	4,600	-	-	620	<25	<25	55	1,400	<1,000	<25	<25	<25	<5,000	-	-	-	-		
	08/07/03			5.55	0.00	2.21	2,000	-	-	290	<5.0	<5.0	15	920	560	<5.0	<5.0	12	<1,000	<5.0	<5.0	-	-		
	11/20/03			5.41	0.00	2.35	2,800	-	-	420	11	11	53	250	<200	<5.0	<5.0	<5.0	1,800	-	-	-	-	Past holding time	
	04/28/04			5.33	0.00	2.43	1,600	-	-	100	5.3	<5.0	8.8	200	950	<5.0	<5.0	<5.0	<1,000	<5.0	<5.0	-	-		
	08/26/04			4.03	0.00	3.73	1,700	-	-	220	7.2	15	35	180	320	<2.5	<2.5	<2.5	<500	<2.5	<2.5	-	-		
	12/01/04			3.93	0.00	3.83	2,100	-	-	380	8.0	34	76	170	300	<5.0	<5.0	<5.0	<1,000	<5.0	<5.0	-	-		
	02/02/05			3.61	0.00	4.15	1,100	-	-	150	3.0	12	14	160	6,700	<2.5	<2.5	<2.5	<500	<2.5	<2.5	-	-		
	04/25/05		10.16	3.75	0.00	6.41	930	-	-	140	3.6	5.3	11	200	5,000	<2.5	<2.5	<2.5	<500	<2.5	<2.5	-	-		
	09/30/05			3.54	0.00	6.62	4,600	-	-	1,000	15	78	150	250	1,200	13	<5.0	<5.0	<500	<5.0	<5.0	-	-		
	12/28/05			3.26	0.00	6.90	1,500	-	-	200	5.7	32	58	140	1,800	<10	<5.0	<5.0	<1,000	<5.0	-	-	-		
	03/23/06			3.40	0.00	6.76	580	-	-	42	<5.0	10	20	40	2,800	<10	<5.0	<5.0	<1,000	<5.0	<5.0	-	-		
	06/05/06			2.97	0.00	7.19	900	-	-	230	2.5	28	71	160	1,900	<5.0	<2.5	<2.5	<500	<2.5	<2.5	-	-		
	09/19/06			3.67	0.00	6.49	1,600	-	-	240	3.4	11	23	180	1,000	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-	Well purged dry	
	12/01/06			3.64	0.00	6.52	1,400	-	-	86	4.3	7.0	19	150	930	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-		
	03/01/07			3.55	0.00	6.61	4,200	-	-	340	7.0	34	46	160	510	<4.0	<2.0	2.0	<1,000	<2.0	<2.0	-	-		
	06/01/07			3.53	0.00	6.63	2,100	-	-	200	3.4	34	59	140	1,500	<4.0	<2.0	2.2	<1,000	<2.0	<2.0	-	-		
09/13/07			4.88	0.00	5.28	540	-	-	74	2.4	5.4	10	59	1,300	<4.0	<2.0	<2.0	1,100	<2.0	<2.0	-	-			
11/21/07			3.70	0.00	6.46	1,800	-	-	67	6.2	3.5	12	200	1,300	<4.0	<2.0	2.7	<1,000	<2.0	<2.0	-	-			
MW-2	11/04/92	DUP	-	-	-	-	12,000	-	-	3,200	980	<0.50	1,900	-	-	-	-	-	-	-	-	-	-		
	11/04/92		8.56	5.88	0.00	2.68	12,000	-	-	3,900	1,300	<0.50	2,300	-	-	-	-	-	-	-	-	-	-		
	10/12/93			6.29	0.00	2.27	4,500	-	-	3,400	180	230	940	442	-	-	-	-	-	-	-	-	-		
	02/15/94	DUP		5.56	0.00	3.00	2,000	-	-	430	270	28	390	127	-	-	-	-	-	-	-	-	4.0		
	02/15/94		-	-	-	-	1,800	-	-	290	160	14	250	-	-	-	-	-	-	-	-	-	-		
	05/11/94	DUP		-	-	-	15,000	-	-	5,600	1,500	470	2,000	740	-	-	-	-	-	-	-	-	-		
	05/11/94		8.56	5.17	0.00	3.39	14,000	-	-	3,900	1,200	440	1,900	953	-	-	-	-	-	-	-	-	-	8.9	
	08/01/94			5.43	0.00	3.13	8,200	-	-	3,000	420	230	680	1,676	-	-	-	-	-	-	-	-	-	2.6	
	10/18/94			5.71	0.00	2.85	9,000	-	-	2,000	140	150	420	2,417	-	-	-	-	-	-	-	-	-	7.2	
	01/13/95			4.67	0.00	3.89	7,900	-	-	2,200	42	<5.0	770	-	-	-	-	-	-	-	-	-	-	6.8	
	04/13/95	DUP	-	-	-	-	25,000	-	-	6,500	1,500	110	5,300	-	-	-	-	-	-	-	-	-	-		
	04/13/95		8.56	4.37	0.00	4.19	33,000	-	-	8,000	2,500	1,100	6,600	-	-	-	-	-	-	-	-	-	-	7.5	
	07/11/95	DUP	-	-	-	-	28,000	-	-	6,800	1,000	900	4,900	-	-	-	-	-	-	-	-	-	-		
	07/11/95		8.56	4.51	0.00	4.05	19,000	-	-	3,300	99	7.5	4,600	-	-	-	-	-	-	-	-	-	-	7.8	
	11/02/95	DUP	-	-	-	-	22,000	-	-	4,000	1,200	600	2,700	19,000	-	-	-	-	-	-	-	-	-	-	
	11/02/95		8.56	5.55	0.00	3.01	20,000	-	-	3,800	1,200	570	2,700	15,000	-	-	-	-	-	-	-	-	-	-	7.3
	02/05/96	DUP	-	-	-	-	910	-	-	290	180	19	137	93	-	-	-	-	-	-	-	-	-	-	
	02/05/96		8.56	5.10	0.00	3.46	1,200	-	-	320	220	26	187	99	-	-	-	-	-	-	-	-	-	-	2.2
	04/24/96	DUP	-	-	-	-	<500	-	-	70	22	<10	61	<50	-	-	-	-	-	-	-	-	-	-	7.0
	04/24/96		-	-	-	-	<500	-	-	100	30	<10	71	<100	-	-	-	-	-	-	-	-	-	-	
07/15/96		8.56	5.40	0.00	3.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
07/16/96		-	-	-	-	12,000	-	-	3,300	1,400	250	2,610	1,400	-	-	-	-	-	-	-	-	-	-	7.8	
07/30/96			5.44	0.00	3.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/04/96			7.06	0.00	1.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/05/96	DUP	-	-	-	-	9,200	-	-	1,300	170	<25	2,240	1,100	-	-	-	-	-	-	-	-	-	-		
11/05/96		8.56	-	-	-	7,200	-	-	1,400	230	38	2,110	1,100	-	-	-	-	-	-	-	-	-	-	7.4	
05/17/97			5.77	0.00	2.79	570	-	-	42	<5.0	5.0	60	210	-	-	-	-	-	-	-	-	-	-	6.9	
08/11/97			5.71	0.00	2.85	6,300	-	-	1,800	130	86	397	2,400	-	-	-	-	-	-	-	-	-	-	8.5	

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments	
MW-2	11/17/97		8.56	6.91	0.00	1.65	2,400	-	-	220	30	33	259	130	-	-	-	-	-	-	-	-	-	7.9	
	01/29/98			4.61	0.00	3.95	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	6.2	
	06/22/98			4.80	0.00	3.76	4,200	-	-	640	150	120	650	560	-	-	-	-	-	-	-	-	-	5.4	
	12/30/98			5.21	0.00	3.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	06/23/99			5.30	0.00	3.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	09/23/99			4.75	0.00	3.81	3,800	-	-	760	19	210	960	910	-	-	-	-	-	-	-	-	-	-	
	12/28/99			4.51	0.00	4.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	03/22/00			4.21	0.00	4.35	2,500	-	-	780	17	44	270	2,800	-	-	-	-	-	-	-	-	-	-	
	05/26/00			4.66	0.00	3.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	09/06/00			4.71	0.00	3.85	3,700	-	-	1,200	5.5	12	170	12,000	-	-	-	-	-	-	-	-	-	-	
	09/15/00			4.74	0.00	3.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/11/00			4.79	0.00	3.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	03/29/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	06/27/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	09/19/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/28/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	03/12/02			4.25	0.00	4.31	26,000	-	-	1,160	4.4	61	171	37,300	-	-	-	-	-	-	-	-	-	-	
	06/13/02			4.94	0.00	3.62	18,000	-	-	578	<50	<50	<100	84,600	-	-	-	-	-	-	-	-	-	-	
	09/06/02			5.23	0.00	3.33	26,000	-	-	440	<50	<50	<50	45,000	-	-	-	-	-	-	-	-	-	-	
	12/13/02			4.94	0.00	3.62	69,000	-	-	1,200	<500	<500	<500	98,000	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used
	02/19/03			4.14	0.00	4.42	78,000	-	-	1,100	<500	<500	<500	81,000	-	-	-	-	-	-	-	-	-	-	
	06/06/03			4.66	0.00	3.90	120,000	-	-	1,100	<1,000	<1,000	<1,000	72,000	<40,000	<1,000	<1,000	1,300	<200,000	-	-	-	-	-	
	08/07/03			4.90	Sheen	3.66	71,000	-	-	590	<500	<500	<500	83,000	45,000	<500	<500	1,300	<100,000	<500	<500	-	-	-	
	11/20/03			4.59	0.00	3.97	22,000	-	-	720	<100	<100	<100	18,000	48,000	<100	<100	200	<20,000	-	-	-	-	-	
	04/28/04			4.37	0.00	4.19	<25,000	-	-	690	<250	<250	<250	31,000	59,000	<250	<250	<250	<50,000	<250	<250	-	-	-	
	08/26/04			4.59	0.00	3.97	140,000	-	-	8,200	18,000	4,200	19,000	11,000	<10,000	<250	<250	320	<50,000	<250	<250	-	-	-	
	12/01/04			4.79	0.00	3.77	98,000	-	-	8,400	13,000	4,600	21,000	10,000	<4,000	<100	<100	230	<20,000	<100	<100	-	-	-	
	02/02/05			4.27	Sheen	4.29	92,000	-	-	6,600	9,900	4,400	18,000	10,000	4,000	<100	<100	260	<20,000	<100	<100	-	-	-	
	04/25/05		11.39	4.00	0.00	7.39	80,000	-	-	6,700	4,900	4,400	17,000	8,200	3,700	<50	<50	220	<10,000	<50	<50	-	-	-	
	09/30/05			4.86	0.00	6.53	98,000	-	-	7,700	7,400	4,700	20,000	16,000	4,700	<50	<50	270	<5,000	<50	<50	-	-	-	
	12/28/05			4.28	0.00	7.11	210,000	-	-	15,000	21,000	7,300	31,000	22,000	6,300	<200	<100	410	<20,000	<100	-	-	-	-	
	03/23/06			3.60	0.00	7.79	79,000	-	-	9,100	12,000	4,300	17,000	13,000	5,800	<200	<100	290	<20,000	<100	<100	-	-	-	
	06/05/06			4.28	Sheen	7.11	79,000	-	-	9,700	8,700	4,900	20,000	8,000	3,300	<100	<50	280	<10,000	<50	<50	-	-	-	
	09/19/06			4.61	0.00	6.78	68,000	-	-	12,000	9,300	4,100	14,000	16,000	4,800	<100	<50	370	<25,000	<50	<50	-	-	-	
	12/01/06			4.55	0.00	6.84	61,000	-	-	15,000	6,900	4,400	17,000	10,000	3,900	<100	<50	270	<25,000	<50	<50	-	-	-	
	03/01/07			4.14	0.00	7.25	80,000	-	-	9,300	5,500	4,100	15,000	8,300	2,700	<100	<50	210	<25,000	<50	<50	-	-	-	
	06/01/07			4.34	0.00	7.05	120,000	-	-	12,000	6,400	4,200	11,000	17,000	4,900	260	<100	310	<50,000	<100	<100	-	-	-	
	09/13/07			5.35	0.00	6.04	<5,000	-	-	770	<50	140	<100	2,300	42,000	<100	<50	50	<25,000	<50	<50	-	-	-	
	11/21/07			5.19	0.00	6.20	27,000	-	-	4,500	220	1,600	2,800	5,200	5,000	<100	<50	160	<25,000	<50	<50	-	-	-	
MW-3	11/04/92		8.25	6.38	0.00	1.87	200	690	<5,000	1.6	<0.50	<0.50	1.1	-	-	-	-	-	-	-	-	-	ND	-	
	10/12/93	DUP		5.84	0.00	2.41	270	2,100	<5,000	5.0	0.70	<0.50	2.6	96	-	-	-	-	-	-	-	-	ND	-	
	10/12/93			-	-	-	150	-	-	5.6	0.60	<0.50	1.6	-	-	-	-	-	-	-	-	-	-	-	
	02/15/94		8.25	6.60	0.00	1.65	140	2.3	90	5.7	<0.50	<0.50	<0.50	30	-	-	-	-	-	-	-	-	ND	3.9	
	05/11/94			5.86	0.00	2.39	190	2,500	<5,000	2.7	1.9	<0.50	1.9	51	-	-	-	-	-	-	-	-	ND	9.2	
	08/01/94			6.13	0.00	2.12	120	1,300	<5,000	1.3	<0.50	0.50	1.1	18	-	-	-	-	-	-	-	-	ND	2.9	
	10/18/94			6.39	0.00	1.86	100	2,200	<5,000	2.3	<0.50	<0.50	<0.50	21	-	-	-	-	-	-	-	-	ND	3.6	

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments	
MW-3	01/13/95		8.25	5.47	0.00	2.78	<50	970	-	0.80	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	ND	7.7	
	04/13/95			5.17	0.00	3.08	530	<500	2,100	8.7	1.9	<0.50	3.9	-	-	-	-	-	-	-	-	-	ND	8.4	
	07/11/95			5.37	0.00	2.88	78	2,100	1,900	0.57	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	ND	8.3	
	11/02/95			6.29	0.00	1.96	250	2,000	1,400	0.73	<0.50	<0.50	1.8	270	-	-	-	-	-	-	-	-	ND	8.3	
	02/05/96			5.80	0.00	2.45	<50	1,600	9,000	<0.50	<1.0	<1.0	2.7	11	-	-	-	-	-	-	-	-	ND	3.5	
	04/24/96			5.69	0.00	2.56	<50	2,800	6,000	<5.0	<10	<10	<10	150	-	-	-	-	-	-	-	-	ND	8.6	
	07/15/96			6.18	0.00	2.07	<250	3,700	1,000	<2.5	<5.0	<5.0	<5.0	<50	-	-	-	-	-	-	-	-	ND	7.7	
	07/30/96			6.04	0.00	2.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/04/96			7.84	0.00	0.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/05/96			-	-	-	90	890	2,000	<0.50	<1.0	<1.0	<1.0	30	-	-	-	-	-	-	-	-	ND	6.8	
	05/17/97			6.49	0.00	1.76	<50	2,100	700	<0.50	<1.0	<1.0	<1.0	52	-	-	-	-	-	-	-	-	ND	6.3	
	08/11/97			6.15	0.00	2.10	490	1,900	<5,000	<2.5	<5.0	<5.0	<5.0	170	-	-	-	-	-	-	-	-	ND	7.4	
	11/17/97			7.15	0.00	1.10	120	2,500	<5,000	<0.50	<1.0	<1.0	<1.0	46	-	-	-	-	-	-	-	-	ND	7.0	
	01/29/98			5.10	0.00	3.15	270	1,700	2,000	0.53	<1.0	<1.0	<1.0	330	-	-	-	-	-	-	-	-	ND	6.4	
	06/22/98			5.50	0.00	2.75	200	2,200	<5.0	<0.50	<1.0	<1.0	<1.0	130	-	-	-	-	-	-	-	-	ND	5.5	
	12/30/98			6.68	0.00	1.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	03/09/99			5.53	0.00	2.72	60	840	7,600	<1.0	<1.0	<1.0	<1.0	19	-	-	-	-	-	-	-	-	-	-	
	06/23/99			6.60	0.00	1.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	09/23/99			6.17	0.00	2.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/28/99			6.00	0.00	2.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	03/22/00			4.77	0.00	3.48	690	<58	13,000	4.2	3.1	0.81	2.7	2,900	-	-	-	-	-	-	-	-	-	-	
	05/26/00			5.28	0.00	2.97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	09/15/00			5.58	0.00	2.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/11/00			11.74	0.00	-3.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DTW anomalous
	03/29/01			5.04	0.00	3.21	650	<50	6,540	<2.5	<2.5	<2.5	<7.5	680	-	-	-	-	-	-	-	-	-	-	
	06/27/01			5.62	0.00	2.63	460	690	<5,000	<2.5	<2.5	<2.5	<7.5	560	-	-	-	-	-	-	-	-	-	-	
	09/19/01			5.80	0.00	2.45	<500	520	<5,000	<5.0	<5.0	<5.0	<15	464	-	-	-	-	-	-	-	-	-	-	
	12/28/01			4.85	0.00	3.40	180	550	<5,000	<0.50	<0.50	<0.50	<1.0	180	-	-	-	-	-	-	-	-	-	-	
	03/12/02			4.39	0.00	3.86	410	1,300	<5,000	<2.5	<2.5	<2.5	<5.0	443	-	-	-	-	-	-	-	-	-	-	
	06/13/02			5.38	0.00	2.87	<250	2,600	<5,000	<2.5	<2.5	<2.5	<5.0	395	-	-	-	-	-	-	-	-	-	-	
	09/06/02			5.68	0.00	2.57	<200	-	-	<2.0	<2.0	<2.0	<2.0	650	-	-	-	-	-	-	-	-	-	-	
	12/13/02			5.37	0.00	2.88	<50	980	7,000	<0.50	<0.50	<0.50	<0.50	60	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used
	02/19/03			4.80	0.00	3.45	<1,000	380	6,700	<10	<10	<10	<10	120	-	-	-	-	-	-	-	-	-	-	
	06/06/03			5.13	0.00	3.12	<500	620	7.9	<5.0	<5.0	<5.0	<5.0	180	<200	<5.0	<5.0	16	<1,000	-	-	-	-	-	
	08/07/03			5.43	0.00	2.82	<500	820 N	5.4	5.7	<5.0	<5.0	<5.0	290	<200	<5.0	<5.0	20	<1,000	<5.0	<5.0	-	-	-	
	11/20/03			4.72	0.00	3.53	<50	1,200 N	-	<0.50	<0.50	<0.50	<0.50	17	<20	<0.50	<0.50	1.4	<100	-	-	-	-	-	
	04/28/04			4.87	0.00	3.38	<100	240 N	-	<1.0	<1.0	<1.0	<1.0	87	<40	<1.0	<1.0	3.9	<200	<1.0	<1.0	-	-	-	
	08/26/04			5.42	0.00	2.83	56	250 N	-	<0.50	<0.50	<0.50	<0.50	34	260	<0.50	<0.50	2.0	<100	<0.50	<0.50	-	-	-	
	12/01/04			5.69	0.00	2.56	<100	690	-	<1.0	<1.0	<1.0	<1.0	7.4	610	<1.0	<1.0	<1.0	<200	<1.0	<1.0	-	-	-	
	02/02/05			4.72	0.00	3.53	<100	730	-	<1.0	<1.0	<1.0	<1.0	20	<40	<1.0	<1.0	1.1	<200	<1.0	<1.0	-	-	-	
	04/25/05		10.73	4.75	0.00	5.98	<250	520	-	<2.5	<2.5	<2.5	<2.5	220	160	<2.5	<2.5	10	<500	<2.5	<2.5	-	-	-	
	09/30/05			5.30	0.00	5.43	<50	300 N	-	<0.50	<0.50	<0.50	<1.0	8.2	270	<0.50	<0.50	0.68	<50	<0.50	<0.50	-	-	-	
	12/28/05			4.41	0.00	6.32	<50	100	<2.0	<0.50	<0.50	<0.50	<1.0	0.66	<5.0	<1.0	<0.50	<0.50	<100	<0.50	-	-	-	-	
	03/23/06			4.43	0.00	6.30	<50	260	<2.0	<0.50	<0.50	<0.50	<1.0	13	130	<1.0	<0.50	0.63	<100	<0.50	<0.50	-	-	-	
	06/05/06			4.95	0.00	5.78	61	340	<2.0	0.69	1.4	0.85	3.6	29	510	<1.0	<0.50	1.6	<100	<0.50	<0.50	-	-	-	
	09/19/06			5.19	0.00	5.54	<50	330	<2.0	<0.50	<0.50	<0.50	<1.0	4.1	420	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments
MW-3	12/01/06		10.73	5.37	0.00	5.36	<50	130	<2.0	<0.50	<0.50	<0.50	<1.0	2.0	250	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	
	03/01/07			4.62	0.00	6.11	<50	120	<2.0	<0.50	<0.50	<0.50	<1.0	3.8	77	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	
	06/01/07			5.53	0.00	5.20	<50	350	<2.0	<0.50	<0.50	<0.50	<1.0	3.7	320	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	
	09/13/07			6.17	0.00	4.56	<250	1,200	<2.0	<2.5	<2.5	<2.5	<5.0	2.6	2,000	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-	
	11/21/07			6.16	0.00	4.57	<250	1,600	<2.0	<2.5	<2.5	<2.5	<5.0	3.4	2,600	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-	
MW-4	11/04/92		8.12	6.66	0.00	1.46	340	-	-	4.5	<0.50	4.3	<0.50	-	-	-	-	-	-	-	-	-	-	
	10/12/93			6.87	0.00	1.25	160	-	-	5.8	1.4	0.80	2.7	261	-	-	-	-	-	-	-	-	-	
	02/15/94			6.61	0.00	1.51	110	-	-	4.4	0.70	<0.50	2.5	118	-	-	-	-	-	-	-	-	-	4.3
	05/11/94			5.89	0.00	2.23	120	-	-	0.50	0.80	<0.50	<0.50	137	-	-	-	-	-	-	-	-	-	9.3
	08/01/94			6.87	0.00	1.25	140	-	-	0.70	2.0	5.2	15	138	-	-	-	-	-	-	-	-	-	3.3
	10/18/94			6.62	0.00	1.50	140	-	-	3.5	<0.50	0.50	<0.50	197	-	-	-	-	-	-	-	-	-	3.0
	01/13/95			7.27	0.00	0.85	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	7.9
	04/13/95			6.51	0.00	1.61	73	-	-	1.2	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	9.9
	07/11/95			6.21	0.00	1.91	82	-	-	0.57	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	7.2
	11/02/95			6.78	0.00	1.34	71	-	-	1.4	0.96	0.99	2.8	140	-	-	-	-	-	-	-	-	-	8.6
	02/05/96			6.41	0.00	1.71	<50	-	-	<5.0	<10	<10	<10	200	-	-	-	-	-	-	-	-	-	4.4
	04/24/96			6.18	0.00	1.94	<250	-	-	<2.5	<5.0	<5.0	<5.0	510	-	-	-	-	-	-	-	-	-	8.3
	07/15/96			6.63	0.00	1.49	<50	-	-	5.7	<1.0	<1.0	<1.0	550	-	-	-	-	-	-	-	-	-	7.4
	07/30/96			6.34	0.00	1.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/04/96			8.27	0.00	-0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/05/96			-	-	-	460	-	-	<2.5	11	<5.0	<5.0	620	-	-	-	-	-	-	-	-	-	7.3
	05/17/97			7.00	0.00	1.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	08/11/97			6.81	0.00	1.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/17/97			9.19	0.00	-1.07	840	-	-	<0.50	<1.0	<1.0	<1.0	880	-	-	-	-	-	-	-	-	-	7.3
	01/29/98			7.94	0.00	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	06/22/98			7.49	0.00	0.63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/30/98			8.21	0.00	-0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/09/99			7.70	0.00	0.42	1,200	-	-	<1.0	<1.0	<1.0	<1.0	2,000	-	-	-	-	-	-	-	-	-	-
	06/23/99			8.81	0.00	-0.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	09/23/99			8.32	0.00	-0.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/28/99			8.21	0.00	-0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/22/00			6.74	0.00	1.38	910	-	-	<0.50	<0.50	0.54	1.7	3,800	-	-	-	-	-	-	-	-	-	-
	05/26/00			5.13	0.00	2.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	09/15/00			8.20	0.00	-0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/11/00			8.31	0.00	-0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/29/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	06/27/01			7.57	0.00	0.55	2,800	-	-	19	<2.5	<2.5	<7.5	4,220	-	-	-	-	-	-	-	-	-	-
	09/19/01			7.87	0.00	0.25	2,500	-	-	<5.0	<5.0	<5.0	<15	3,340	-	-	-	-	-	-	-	-	-	-
12/28/01			7.80	0.00	0.32	4,400	-	-	<5.0	<5.0	<5.0	<10	5,330	-	-	-	-	-	-	-	-	-	-	
03/12/02			4.53	0.00	3.59	6,400	-	-	72	<5.0	<5.0	<10	8,440	-	-	-	-	-	-	-	-	-	-	
06/13/02			6.21	0.00	1.91	1,800	-	-	7.5	<5.0	5.0	13	6,870	-	-	-	-	-	-	-	-	-	-	
09/06/02			7.78	0.00	0.34	<2000	-	-	<20	<20	<20	<20	9,600	-	-	-	-	-	-	-	-	-	-	
12/13/02			7.87	0.00	0.25	5,600	-	-	<50	<50	<50	<50	8,600	-	-	-	-	-	-	-	-	-	-	
02/19/03			4.84	0.00	3.28	<10,000	-	-	<100	<100	<100	<100	8,000	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used
06/06/03			7.98	0.00	0.14	13,000	-	-	<50	<50	<50	<50	6,800	2,500	<50	<50	190	<10,000	-	-	-	-	-	
08/07/03			7.24	0.00	0.88	6,200	-	-	<50	<50	<50	<50	6,600	2,400	<50	<50	160	<10,000	<50	<50	-	-	-	

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments	
MW-4	11/20/03		8.12	7.02	0.00	1.10	10,000	-	-	<100	<100	<100	<100	11,000	<4,000	<100	<100	310	<20,000	-	-	-	-		
	04/28/04			4.81	0.00	3.31	<25,000	-	-	<250	<250	<250	<250	3,600	15,000	<250	<250	<250	<50,000	<250	<250	-	-		
	08/26/04			5.65	0.00	2.47	<2,500	-	-	<25	<25	<25	<25	1,800	16,000	<25	<25	60	-	<25	<25	-	-		
	12/01/04			7.34	0.00	0.78	1,100	-	-	<10	<10	<10	<10	450	19,000	<10	<10	10	<2,000	<10	<10	-	-		
	02/02/05			7.61	0.00	0.51	1,000	-	-	<5.0	<5.0	<5.0	<5.0	410	19,000	<5.0	<5.0	10	<1,000	<5.0	<5.0	-	-		
	04/25/05		10.58	7.25	0.00	3.33	720	-	-	8.0	5.3	<5.0	16	170	18,000	<5.0	<5.0	<5.0	<1,000	<5.0	<5.0	-	-		
	09/30/05			7.72	0.00	2.86	<2,500	-	-	63	58	46	140	110	30,000	<25	<25	<25	<2,500	<25	<25	-	-		
	12/28/05			7.48	0.00	3.10	<2,500	-	-	<25	<25	<25	<50	34	27,000	<50	<25	<25	<5,000	<25	-	-	-		
	03/23/06			4.42	0.00	6.16	<2,500	-	-	<25	<25	<25	<50	120	34,000	<50	<25	<25	<5,000	<25	<25	-	-		
	06/05/06			4.97	0.00	5.61	<5,000	-	-	<50	<50	<50	<100	<50	34,000	<100	<50	<50	<10,000	<50	<50	-	-	Well purged dry	
	09/19/06			5.45	0.00	5.13	<5,000	-	-	<50	<50	<50	<100	110	27,000	<100	<50	<50	<25,000	<50	<50	-	-	Well purged dry	
	12/01/06			5.14	0.00	5.44	<5,000	-	-	<50	<50	<50	<100	68	31,000	<100	<50	<50	<25,000	<50	<50	-	-	Well purged dry	
	03/01/07			7.60	0.00	2.98	<5,000	-	-	<50	<50	<50	<100	<50	31,000	<100	<50	<50	<25,000	<50	<50	-	-		
	06/01/07			5.21	0.00	5.37	2,700	-	-	<25	<25	<25	<50	31	32,000	<50	<25	<25	<13,000	<25	<25	-	-		
	09/13/07			6.45	0.00	4.13	<2,500	-	-	<25	<25	<25	<50	<25	10,000	<50	<25	<25	<13,000	<25	<25	-	-		
11/21/07			5.68	0.00	4.90	<2,500	-	-	<25	<25	<25	<50	<25	38,000	<50	<25	<25	<13,000	<25	<25	-	-			
MW-5	10/12/93		7.69	6.01	0.00	1.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	10/13/93			-	-	-	2,300	-	-	160	10	<0.50	26	-	-	-	-	-	-	-	-	-	-		
	02/15/94			5.74	0.00	1.95	5,100	-	-	710	16	33	35	153	-	-	-	-	-	-	-	-	-	4.0	
	05/11/94			5.28	0.00	2.41	11,000	-	-	1,100	39	110	57	165	-	-	-	-	-	-	-	-	-	-	8.0
	08/01/94			5.84	0.00	1.85	9,000	-	-	730	35	61	41	196	-	-	-	-	-	-	-	-	-	-	2.6
	10/18/94			6.01	0.00	1.68	7,800	-	-	330	30	27	27	559	-	-	-	-	-	-	-	-	-	-	5.6
	01/13/95			4.74	0.00	2.95	<500	-	-	290	6.0	<5.0	18	-	-	-	-	-	-	-	-	-	-	-	6.8
	04/13/95			5.50	0.00	2.19	9,100	-	-	400	15	52	27	-	-	-	-	-	-	-	-	-	-	-	7.4
	07/11/95			5.75	0.00	1.94	7,300	-	-	390	13	28	23	-	-	-	-	-	-	-	-	-	-	-	7.2
	11/03/95			6.65	0.00	1.04	7,200	-	-	270	15	38	23	200	-	-	-	-	-	-	-	-	-	-	8.4
	02/05/96			4.83	0.00	2.86	4,600	-	-	370	15	53	28	<50	-	-	-	-	-	-	-	-	-	-	1.9
	04/24/96			6.09	0.00	1.60	3,000	-	-	180	<10	32	14	<100	-	-	-	-	-	-	-	-	-	-	8.1
	07/15/96			6.57	0.00	1.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	07/16/96			-	-	-	<50	-	-	190	<10	31	16	<100	-	-	-	-	-	-	-	-	-	-	8.3
	07/30/96			5.61	0.00	2.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	08/12/96			-	-	-	2,000	-	-	150	12	25	18	<50	-	-	-	-	-	-	-	-	-	-	7.6
	11/04/96			8.25	0.00	-0.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/05/96			-	-	-	5,200	-	-	42	5.5	13	<5.0	1,700	-	-	-	-	-	-	-	-	-	-	7.4
	05/17/97			6.95	0.00	0.74	80	-	-	0.56	<1.0	<1.0	<1.0	46	-	-	-	-	-	-	-	-	-	-	6.7
	08/11/97			6.72	0.00	0.97	2,700	-	-	20	12	6.7	9.7	1,900	-	-	-	-	-	-	-	-	-	-	8.5
	11/17/97			9.49	0.00	-1.80	8,400	-	-	25	12	8.7	5.4	13,000	-	-	-	-	-	-	-	-	-	-	7.9
	01/29/98			7.88	0.00	-0.19	110,000	-	-	2,500	110	180	589	180,000	-	-	-	-	-	-	-	-	-	-	6.8
	06/22/98			7.40	0.00	0.29	4,400	-	-	47	10	29	21	47	-	-	-	-	-	-	-	-	-	-	6.6
	12/30/98			6.13	0.00	1.56	6,000	-	-	18	9.1	22	16	63	-	-	-	-	-	-	-	-	-	-	-
	03/09/99			4.79	0.00	2.90	4,600	-	-	8.8	5.5	12	11	24	-	-	-	-	-	-	-	-	-	-	-
	06/23/99			5.95	0.00	1.74	3,400	-	-	1,500	8.9	54	87	7,500	-	-	-	-	-	-	-	-	-	-	-
	09/23/99			5.43	0.00	2.26	2,600	-	-	510	14	140	650	580	-	-	-	-	-	-	-	-	-	-	-
12/28/99			5.30	0.00	2.39	3,500	-	-	900	18	57	140	4,800	-	-	-	-	-	-	-	-	-	-	-	
03/22/00	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
05/26/00	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments		
MW-5	09/06/00	INA	7.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used	
	09/15/00	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	12/11/00	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	03/29/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	06/27/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	09/19/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	12/28/01			-	4.65	0.00	3.04	4,600	-	-	20	25	16	57	72	-	-	-	-	-	-	-	-	-		-
	03/12/02			-	5.35	0.00	2.34	5,100	-	-	45	14	22	39	32	-	-	-	-	-	-	-	-	-		-
	06/13/02			-	5.34	0.00	2.35	2,900	-	-	32	<12.5	<12.5	<25	616	-	-	-	-	-	-	-	-	-		-
	09/06/02			-	5.46	0.00	2.23	3,400	-	-	23	5.5	<5.0	11	230	-	-	-	-	-	-	-	-	-		-
	12/13/02		-	5.47	0.00	2.22	2,500	-	-	12	9.3	4.6	8.8	110	-	-	-	-	-	-	-	-	-	-		
	02/19/03		-	5.29	0.00	2.40	2,800	-	-	11	5.4	9.7	12	6.4	-	-	-	-	-	-	-	-	-	-		
	06/06/03		-	5.30	0.00	2.39	3,200	-	-	9.1	<5.0	7.6	9.3	<5.0	<200	<5.0	<5.0	<5.0	<5.0	<1,000	-	-	-	-		
	08/07/03		-	5.33	0.00	2.36	2,200	-	-	7.3	<5.0	<5.0	9.1	18	<200	<5.0	<5.0	<5.0	<1,000	<5.0	<5.0	-	-	-		
	11/20/03		-	5.39	0.00	2.30	3,500	-	-	12	5.4	6.4	12	12	<100	<2.5	<2.5	<2.5	<500	-	-	-	-	-		
	04/28/04		-	5.53	0.00	2.16	5,700	-	-	7.8	4.2	5.2	11	11	<100	<2.5	<2.5	<2.5	<500	<2.5	<2.5	-	-	-		
	08/26/04		-	5.42	0.00	2.27	2,400	-	-	23	4.0	3.6	11	74	<100	<2.5	<2.5	<2.5	-	<2.5	<2.5	-	-	-		
	12/01/04		-	5.38	0.00	2.31	4,300	-	-	11	<5.0	5.5	15	<5.0	<200	<5.0	<5.0	<5.0	<1,000	<5.0	<5.0	-	-	-		
	02/02/05		-	5.48	0.00	2.21	4,000	-	-	8.4	4.8	4.0	10	11	<100	<2.5	<2.5	<2.5	<500	<2.5	<2.5	-	-	-		
	04/25/05		-	10.18	5.52	0.00	4.66	5,200	-	-	7.6	4.0	4.3	9.9	12	<100	<2.5	<2.5	<2.5	<500	<2.5	<2.5	-	-		-
	09/30/05		-	5.04	0.00	5.14	4,100	-	-	5.3	2.7	2.1	8.0	16	27	<1.0	<1.0	<1.0	<100	<1.0	<1.0	-	-	-		
	12/28/05		-	4.85	0.00	5.33	7,700	-	-	7.7	3.3	2.9	7.1	3.8	<20	14	<2.0	<2.0	<400	<2.0	-	-	-	-		
	03/23/06		-	5.07	0.00	5.11	5,700	-	-	11	3.3	2.4	8.1	8.6	37	<4.0	<2.0	<2.0	<400	<2.0	<2.0	-	-	-		
06/05/06		-	5.39	Sheen	4.79	5,900	-	-	36	5.0	3.7	15	11	90	<5.0	<2.5	<2.5	<500	<2.5	<2.5	-	-	-			
09/19/06		-	4.75	0.00	5.43	4,600	-	-	6.7	<2.5	<2.5	<5.0	12	53	<5.0	<2.5	<2.5	<1300	<2.5	<2.5	-	-	-			
12/01/06		-	5.29	0.00	4.89	4,400	-	-	5.0	<2.5	<2.5	5.8	14	<25	<5.0	<2.5	2.7	<1,300	<2.5	<2.5	-	-	-			
03/01/07		-	5.01	0.00	5.17	6,400	-	-	6.2	3.0	<2.5	8.7	<2.5	<25	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-	-			
06/01/07		-	5.34	0.00	4.84	7,000	-	-	3.4	<2.5	<2.5	6.6	11	40	32	<2.5	<2.5	<1,300	<2.5	5.8	-	-	-			
09/13/07		-	5.11	0.00	5.07	7,000	-	-	3.8	<2.5	<2.5	<5.0	8.5	<25	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-	-			
11/21/07		-	5.34	0.00	4.84	4,700	-	-	<2.5	<2.5	<2.5	<5.0	11	310	<5.0	<2.5	<2.5	<2.5	<1,300	<2.5	<2.5	-	-	-		
MW-6	10/12/93		8.52	6.59	0.00	1.93	63	-	-	<0.50	<0.50	<0.50	<0.50	44	-	-	-	-	-	-	-	-	-	-		
	02/15/94			6.31	0.00	2.21	68	-	-	<0.50	<0.50	<0.50	<0.50	38	-	-	-	-	-	-	-	-	-	3.1		
	05/11/94			6.15	0.00	2.37	68	-	-	<0.50	<0.50	<0.50	<0.50	49	-	-	-	-	-	-	-	-	-	8.7		
	08/01/94			6.46	0.00	2.06	91	-	-	<0.50	<0.50	<0.50	0.60	60	-	-	-	-	-	-	-	-	-	-	2.4	
	10/18/94			6.72	0.00	1.80	<50	-	-	<0.50	<0.50	<0.50	<0.50	85	-	-	-	-	-	-	-	-	-	-	6.0	
	01/13/95			5.95	0.00	2.57	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	-	7.0	
	04/13/95			5.44	0.00	3.08	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	-	8.5	
	07/11/95			5.68	0.00	2.84	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	-	8.4	
	11/02/95			6.57	0.00	1.95	<50	-	-	<0.50	<0.50	<0.50	<1.0	35	-	-	-	-	-	-	-	-	-	-	8.3	
	02/05/96			6.27	0.00	2.25	<50	-	-	<5.0	<10	<10	<10	<100	-	-	-	-	-	-	-	-	-	-	2.2	
	04/24/96			5.95	0.00	2.57	<250	-	-	<2.5	<5.0	<5.0	<5.0	62	-	-	-	-	-	-	-	-	-	-	8.0	
	07/15/96			6.39	0.00	2.13	<250	-	-	<2.5	<5.0	<5.0	<5.0	<50	-	-	-	-	-	-	-	-	-	-	8.0	
	07/30/96			6.44	0.00	2.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/04/96			8.05	0.00	0.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/05/96			-	-	-	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	-	7.3	
05/17/97		-	6.75	0.00	1.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments			
MW-6	08/11/97	NS	8.52	6.48	0.00	2.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used		
	11/17/97			9.27	0.00	-0.75	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	-		7.7	
	01/29/98			7.98	0.00	0.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
	06/22/98			7.68	0.00	0.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
	12/30/98			6.98	0.00	1.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
	03/09/99			5.90	0.00	2.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
	06/23/99			6.93	0.00	1.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
	09/23/99			6.45	0.00	2.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
	12/28/99			6.33	0.00	2.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
	03/22/00			5.15	0.00	3.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
	05/26/00			5.72	0.00	2.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
	09/15/00			6.02	0.00	2.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
	12/11/00			6.20	0.00	2.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
	03/29/01			5.34	0.00	3.18	750	-	-	<2.5	2.9	<2.5	12	820	-	-	-	-	-	-	-	-	-	-		-	-
	06/27/01			6.00	0.00	2.52	760	-	-	33	<2.5	<2.5	<7.5	968	-	-	-	-	-	-	-	-	-	-		-	-
	09/19/01		6.22	0.00	2.30	<500	-	-	<5.0	<5.0	<5.0	<15	879	-	-	-	-	-	-	-	-	-	-	-		-	
	12/28/01		4.71	0.00	3.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
	03/12/02		4.96	0.00	3.56	<500	-	-	<5.0	<5.0	<5.0	<10	244	-	-	-	-	-	-	-	-	-	-	-		-	
	06/13/02		5.78	0.00	2.74	<250	-	-	<2.5	<2.5	<2.5	<5.0	413	-	-	-	-	-	-	-	-	-	-	-		-	
	09/06/02		6.14	0.00	2.38	130	-	-	<0.50	<0.50	<0.50	<0.50	240	-	-	-	-	-	-	-	-	-	-	-		-	
	12/13/02		6.05	0.00	2.47	140	-	-	<1.0	<1.0	<1.0	<1.0	200	-	-	-	-	-	-	-	-	-	-	-		-	
	02/19/03		5.40	0.00	3.12	<500	-	-	<5.0	<5.0	<5.0	<5.0	150	-	-	-	-	-	-	-	-	-	-	-		-	
	06/06/03		5.54	0.00	2.98	1,100	-	-	<5.0	<5.0	<5.0	<5.0	140	<200	<5.0	<5.0	21	<1,000	-	-	-	-	-	-		-	
	08/07/03		5.94	0.00	2.58	<500	-	-	<5.0	<5.0	<5.0	<5.0	160	<200	<5.0	<5.0	20	<1,000	<5.0	<5.0	-	-	-	-		-	
	11/20/03		5.85	0.00	2.67	95	-	-	<0.50	<0.50	<0.50	<0.50	74	<20	<0.50	<0.50	12	<100	-	-	-	-	-	-		-	
	04/28/04		5.45	0.00	3.07	<250	-	-	<2.5	<2.5	<2.5	<2.5	120	<100	<2.5	<2.5	12	<500	<2.5	<2.5	-	-	-	-		-	
	08/26/04		6.06	0.00	2.46	<250	-	-	<2.5	<2.5	<2.5	<2.5	110	<100	<2.5	<2.5	12	<500	<2.5	<2.5	-	-	-	-		-	
	12/01/04		6.19	0.00	2.33	<250	-	-	<2.5	<2.5	<2.5	<2.5	86	<100	<2.5	<2.5	11	<500	<2.5	<2.5	-	-	-	-		-	
	02/02/05		5.20	0.00	3.32	55	-	-	<0.50	<0.50	<0.50	<0.50	41	32	<0.50	<0.50	6.2	<100	<0.50	<0.50	-	-	-	-		-	
	04/25/05		5.22	0.00	5.79	64	-	-	<0.50	<0.50	<0.50	<0.50	50	45	<0.50	<0.50	6.0	<100	<0.50	<0.50	-	-	-	-		-	
09/30/05	5.93	0.00	5.08	200 N	-	-	<2.0	<2.0	<2.0	<4	51	280	<2.0	<2.0	4.4	<200	<2.0	<2.0	-	-	-	-	-				
12/28/05	5.49	0.00	5.52	<50	-	-	<0.50	<0.50	<0.50	<1.0	16	160	<1.0	<0.50	2.0	<100	<0.50	-	-	-	-	-	-				
03/23/06	4.59	0.00	6.42	<50	-	-	<0.50	<0.50	<0.50	<1.0	5.6	35	<1.0	<0.50	0.91	<100	<0.50	<0.50	-	-	-	-	-				
06/05/06	5.38	0.00	5.63	<50	-	-	<0.50	0.54	<0.50	<1.0	14	110	<1.0	<0.50	1.5	<100	<0.50	<0.50	-	-	-	-	-				
09/19/06	5.93	0.00	5.08	<50	-	-	<0.50	<0.50	<0.50	<1.0	8.8	190	<1.0	<0.50	1.4	<250	<0.50	<0.50	-	-	-	-	-				
12/01/06	6.28	0.00	4.73	<50	-	-	<0.50	<0.50	<0.50	<1.0	5.9	98	<1.0	<0.50	0.94	<250	<0.50	<0.50	-	-	-	-	-				
03/01/07	5.72	0.00	5.29	<50	-	-	<0.50	<0.50	<0.50	<1.0	6.0	96	<1.0	<0.50	0.68	<250	<0.50	<0.50	-	-	-	-	-				
06/01/07	6.22	0.00	4.79	<50	-	-	<0.50	<0.50	<0.50	<1.0	7.4	160	<1.0	<0.50	0.77	<250	<0.50	<0.50	-	-	-	-	-				
09/13/07	6.57	0.00	4.44	63	-	-	<0.50	<0.50	<0.50	<1.0	6.7	120	<1.0	<0.50	0.87	<250	<0.50	<0.50	-	-	-	-	-				
11/21/07	6.67	0.00	4.34	<50	-	-	<0.50	<0.50	<0.50	<1.0	8.4	210	<1.0	<0.50	1.0	<250	<0.50	<0.50	-	-	-	-	-				
MW-7	10/12/93		7.61	6.14	0.00	1.47	<50	-	-	<0.50	<0.50	<0.50	0.70	<5.0	-	-	-	-	-	-	-	-	-	-			
	02/15/94			5.88	0.00	1.73	78	-	-	<0.50	<0.50	<0.50	0.60	<5.0	-	-	-	-	-	-	-	-	-	4.0			
	05/11/94			5.76	0.00	1.85	70	-	-	<0.50	<0.50	<0.50	0.90	12	-	-	-	-	-	-	-	-	-	9.1			
	08/01/94			5.97	0.00	1.64	77	-	-	<0.50	<0.50	<0.50	0.50	182	-	-	-	-	-	-	-	-	-	-	2.5		
	10/18/94			6.24	0.00	1.37	<50	-	-	<0.50	<0.50	<0.50	<0.50	52	-	-	-	-	-	-	-	-	-	-	6.3		
	01/13/95			5.39	0.00	2.22	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	-	8.2		

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments	
MW-7	04/13/95		7.61	5.17	0.00	2.44	63	-	-	<0.50	<0.50	<0.50	1.4	-	-	-	-	-	-	-	-	-	-	8.4	
	07/11/95			5.25	0.00	2.36	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	7.9	
	11/02/95			6.19	0.00	1.42	<50	-	-	<0.50	<0.50	<0.50	<1.0	55	-	-	-	-	-	-	-	-	-	8.0	
	02/05/96			5.69	0.00	1.92	<50	-	-	<0.50	<1.0	<1.0	<1.0	40	-	-	-	-	-	-	-	-	-	1.9	
	04/24/96			5.59	0.00	2.02	<250	-	-	<2.5	<5.0	<5.0	<5.0	53	-	-	-	-	-	-	-	-	-	8.2	
	07/15/96			6.07	0.00	1.54	<250	-	-	<2.5	<5.0	<5.0	<5.0	<50	-	-	-	-	-	-	-	-	-	7.8	
	07/30/96			6.04	0.00	1.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/04/96			7.76	0.00	-0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/05/96			-	-	-	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	7.8	
	05/17/97			6.42	0.00	1.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	08/11/97			6.06	0.00	1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/17/97			9.07	0.00	-1.46	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	7.1	
	01/29/98			7.44	0.00	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	06/22/98			7.39	0.00	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/30/98			5.51	0.00	2.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	03/09/99			5.57	0.00	2.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	06/23/99			6.69	0.00	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	09/23/99			6.23	0.00	1.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/28/99			6.08	0.00	1.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	03/22/00			4.88	0.00	2.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	05/26/00			5.42	0.00	2.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	09/15/00			5.79	0.00	1.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/11/00			5.93	0.00	1.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	03/29/01			5.24	0.00	2.37	600	-	-	<2.5	<2.5	<2.5	<7.5	636	-	-	-	-	-	-	-	-	-	-	
	06/27/01			5.69	0.00	1.92	590	-	-	<2.5	<2.5	<2.5	<7.5	739	-	-	-	-	-	-	-	-	-	-	
	09/19/01			5.89	0.00	1.72	560	-	-	<5.0	<5.0	<5.0	<15	1,190	-	-	-	-	-	-	-	-	-	-	
	12/28/01			4.53	0.00	3.08	910	-	-	23	<2.5	<2.5	<5.0	856	-	-	-	-	-	-	-	-	-	-	
	03/12/02			4.71	0.00	2.90	620	-	-	<2.5	<2.5	<2.5	<5.0	675	-	-	-	-	-	-	-	-	-	-	
	06/13/02			5.21	0.00	2.40	860	-	-	<2.5	<2.5	<2.5	<5.0	1,470	-	-	-	-	-	-	-	-	-	-	
	09/06/02			5.77	0.00	1.84	350	-	-	<2.5	<2.5	<2.5	<2.5	690	-	-	-	-	-	-	-	-	-	-	
	12/13/02			5.65	0.00	1.96	1,300	-	-	<10	<10	<10	<10	1,800	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used
	02/19/03			5.07	0.00	2.54	1,700	-	-	<10	<10	<10	<10	1,600	-	-	-	-	-	-	-	-	-	-	
	06/06/03			5.27	0.00	2.34	1,000	-	-	<5.0	<5.0	<5.0	<5.0	510	<200	<5.0	<5.0	41	<1,000	-	-	-	-	-	
	08/07/03			5.52	0.00	2.09	510	-	-	<5.0	<5.0	<5.0	<5.0	520	<200	<5.0	<5.0	43	<1,000	<5.0	<5.0	-	-	-	
	11/20/03			5.79	0.00	1.82	330	-	-	<2.5	<2.5	<2.5	<2.5	270	1,300	<2.5	<2.5	8.9	<500	-	-	-	-	-	
	04/28/04			5.20	0.00	2.41	<250	-	-	<2.5	<2.5	<2.5	<2.5	71	880	<2.5	<2.5	3.5	<500	<2.5	<2.5	-	-	-	
	08/26/04			5.65	0.00	1.96	450	-	-	<2.5	<2.5	<2.5	2.8	150	4,800	<2.5	<2.5	7.8	<500	<0.50	<0.50	-	-	-	
	12/01/04			5.79	0.00	1.82	100	-	-	<1.0	<1.0	<1.0	<1.0	25	1,400	<1.0	<1.0	1.1	<200	<1.0	<1.0	-	-	-	
	02/02/05			4.92	0.00	2.69	81	-	-	<0.50	<0.50	<0.50	<0.50	31	830	<0.50	<0.50	1.8	<100	<0.50	<0.50	-	-	-	
	04/25/05		10.11	4.88	0.00	5.23	67	-	-	<0.50	<0.50	<0.50	0.64	41	520	<0.50	<0.50	2.1	<100	<0.50	<0.50	-	-	-	
	09/30/05			5.62	0.00	4.49	58 N	-	-	<0.50	<0.50	<0.50	<1.0	18	450	<0.50	<0.50	1.5	<50	<0.50	<0.50	-	-	-	
	12/28/05			4.93	0.00	5.18	<500	-	-	<5.0	<5.0	<5.0	<10	7.4	1,600	<10	<5.0	<5.0	<1,000	<5.0	-	-	-	-	
	03/23/06			4.63	0.00	5.48	71	-	-	<0.50	<0.50	<0.50	<1.0	25	340	<1.0	<0.50	1.7	<100	<0.50	<0.50	-	-	-	
	06/05/06			5.08	0.00	5.03	57	-	-	<0.50	<0.50	<0.50	<1.0	14	200	<1.0	<0.50	1.2	<100	<0.50	<0.50	-	-	-	
	09/19/06			5.60	0.00	4.51	<50	-	-	<0.50	<0.50	<0.50	<1.0	14	280	<1.0	<0.50	1.6	<250	<0.50	<0.50	-	-	-	
	12/01/06			6.00	0.00	4.11	<250	-	-	<2.5	<2.5	<2.5	<5.0	6.7	1,400	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-	-	

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments		
MW-7	03/01/07		10.11	5.69	0.00	4.42	<250	-	-	<2.5	<2.5	<2.5	<5.0	4.0	1,000	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-			
	06/01/07			5.97	0.00	4.14	120	-	-	<0.50	<0.50	<0.50	<1.0	7.5	600	<1.0	<0.50	0.59	<250	<0.50	<0.50	-	-			
	09/13/07			6.31	0.00	3.80	<50	-	-	<0.50	<0.50	<0.50	<1.0	10	260	<1.0	<0.50	0.80	<250	<0.50	<0.50	-	-			
	11/21/07			6.39	0.00	3.72	55	-	-	<0.50	<0.50	<0.50	<1.0	8.4	1,500	<1.0	<0.50	0.87	<250	<0.50	<0.50	-	-			
MW-8	10/12/93		8.60	5.86	0.00	2.74	<50	-	-	<0.50	<0.50	<0.50	<0.50	11	-	-	-	-	-	-	-	-	-	-		
	02/15/94			5.50	0.00	3.10	380	-	-	<0.50	<0.50	<0.50	<0.50	<5.0	-	-	-	-	-	-	-	-	-	-	3.3	
	05/11/94			5.09	0.00	3.51	330	-	-	<0.50	1.2	<0.50	1.9	<5.0	-	-	-	-	-	-	-	-	-	-	8.5	
	08/01/94			5.20	0.00	3.40	260	-	-	<0.50	1.2	2.9	5.8	<5.0	-	-	-	-	-	-	-	-	-	-	2.3	
	10/18/94			5.70	0.00	2.90	82	-	-	<0.50	<0.50	<0.50	<0.50	<5.0	-	-	-	-	-	-	-	-	-	-	6.4	
	01/13/95			4.96	0.00	3.64	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	-	6.9	
	04/13/95			5.40	0.00	3.20	270	-	-	<0.50	<0.50	<0.50	4.4	-	-	-	-	-	-	-	-	-	-	-	8.4	
	07/11/95			6.01	0.00	2.59	320	-	-	<0.50	<0.50	<0.50	3.5	-	-	-	-	-	-	-	-	-	-	-	8.0	
	11/02/95			6.81	0.00	1.79	100	-	-	<0.50	<0.50	<0.50	<1.0	<5.0	-	-	-	-	-	-	-	-	-	-	8.7	
	02/05/96			6.12	0.00	2.48	<50	-	-	<5.0	<10	<10	<10	<100	-	-	-	-	-	-	-	-	-	-	1.5	
	04/24/96			6.23	0.00	2.37	<50	-	-	<5.0	<10	<10	<10	<100	-	-	-	-	-	-	-	-	-	-	8.7	
	07/15/96			6.70	0.00	1.90	<250	-	-	<2.5	<5.0	<5.0	<5.0	<50	-	-	-	-	-	-	-	-	-	-	8.4	
	07/30/96			6.64	0.00	1.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/04/96			8.36	0.00	0.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/05/96			-	-	-	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	-	7.2	
	05/17/97			7.03	0.00	1.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	08/11/97			6.05	0.00	2.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/17/97			9.14	0.00	-0.54	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	-	7.7	
	01/29/98			7.90	0.00	0.70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	06/22/98			7.72	0.00	0.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/30/98	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/09/99	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	06/23/99			4.70	0.00	3.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	09/23/99			4.22	0.00	4.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/28/99			4.12	0.00	4.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/22/00			4.71	0.00	3.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05/26/00			4.98	0.00	3.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	09/15/00			4.62	0.00	3.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/11/00			4.77	0.00	3.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/29/01	INA		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	06/27/01			5.11	0.00	3.49	570	-	-	<2.5	<2.5	2.6	<7.5	3.4	-	-	-	-	-	-	-	-	-	-	-	-
	09/19/01			5.00	0.00	3.60	<500	-	-	<5.0	<5.0	<5.0	<15	<5.0	-	-	-	-	-	-	-	-	-	-	-	-
	12/28/01			4.15	0.00	4.45	440	-	-	<0.50	<0.50	0.98	<1.0	6.3	-	-	-	-	-	-	-	-	-	-	-	-
03/12/02		4.35	0.00	4.25	330	-	-	<2.5	<2.5	<2.5	<5.0	8.7	-	-	-	-	-	-	-	-	-	-	-	-		
06/13/02		5.09	0.00	3.51	<500	-	-	<5.0	<5.0	<5.0	<10	16	-	-	-	-	-	-	-	-	-	-	-	-		
09/06/02		5.18	0.00	3.42	98	-	-	<0.50	<0.50	<0.50	<0.50	76	-	-	-	-	-	-	-	-	-	-	-	-		
12/13/02		4.84	0.00	3.76	120	-	-	<0.50	<0.50	0.94	0.52	140	-	-	-	-	-	-	-	-	-	-	-	-		
02/19/03		4.45	0.00	4.15	<2,500	-	-	<25	<25	<25	<25	800	-	-	-	-	-	-	-	-	-	-	-	-		
06/06/03		5.00	0.00	3.60	<50,000	-	-	<500	<500	<500	<500	17,000	<20,000	<500	<500	<500	<100,000	-	-	-	-	-	-	-		
08/07/03		4.84	0.00	3.76	<2,500	-	-	<25	<25	<25	<25	2,400	<1,000	<25	<25	44	<5,000	<25	<25	-	-	-	-	-		
11/20/03		4.48	0.00	4.12	<2,500	-	-	<25	<25	<25	<25	1,400	4,100	<25	<25	<25	<5,000	-	-	-	-	-	-	-		
04/28/04		9.66	0.00	-1.06	730	-	-	<2.5	<2.5	<2.5	<2.5	170	42,000	<2.5	<2.5	<2.5	<500	<2.5	<2.5	-	-	-	-	-		

EPA 8015B/8021B used

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments
MW-8	08/26/04		8.60	4.73	0.00	3.87	<2,500	-	-	<25	<25	<25	<25	170	47,000	<25	<25	<25	-	<25	<25	-	-	Well purged dry
	12/01/04			4.80	0.00	3.80	<250	-	-	<2.5	<2.5	<2.5	<2.5	36	9,700	<2.5	<2.5	<2.5	<500	<2.5	<2.5	-	-	
	02/02/05			4.50	0.00	4.10	810	-	-	<0.50	<0.50	<0.50	<0.50	41	<20	<0.50	0.72	0.64	<100	<0.50	<0.50	-	-	
	04/25/05		11.08	4.99	0.00	6.09	1,400	-	-	<12	<12	<12	<12	32	45,000	<12	<12	<12	<2,500	<12	<12	-	-	
	09/30/05			4.89	0.00	6.19	840	-	-	<5.0	<5.0	<5.0	<10	17	8,500	<5.0	<5.0	<5.0	<500	<5.0	<5.0	-	-	
	12/28/05			4.81	0.00	6.27	<250	-	-	<2.5	<2.5	<2.5	<5.0	17	7,400	<5.0	<2.5	<2.5	<500	<2.5	-	-	-	
	03/23/06			4.22	0.00	6.86	660	-	-	<2.5	<2.5	<2.5	<5.0	21	11,000	<5.0	<2.5	<2.5	<500	<2.5	<2.5	-	-	
	06/05/06			4.63	0.00	6.45	<2,500	-	-	<25	<25	<25	<50	30	34,000	<50	<25	<25	<5,000	<25	<25	-	-	
	09/19/06			4.82	0.00	6.26	<500	-	-	<5.0	<5.0	<5.0	<10	17	7,500	<10	<5.0	<5.0	<2,500	<5.0	<5.0	-	-	
	12/01/06			4.83	0.00	6.25	350	-	-	<2.5	<2.5	<2.5	<5.0	16	1,900	<5.0	<2.5	<2.5	<1,300	<2.5	<2.5	-	-	
	03/01/07			4.43	0.00	6.65	<500	-	-	<5.0	<5.0	<5.0	<10	20	6,200	<10	<5.0	<5.0	<2,500	<5.0	<5.0	-	-	
	06/01/07			4.74	0.00	6.34	<500	-	-	<5.0	<5.0	<5.0	<10	8.7	3,700	<10	<5.0	<5.0	<2,500	<5.0	<5.0	-	-	
09/13/07			5.25	0.00	5.83	230	-	-	<0.50	<0.50	<0.50	<1.0	9.4	630	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-		
11/21/07			5.13	0.00	5.95	350	-	-	<0.50	<0.50	<0.50	<1.0	8.7	360	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-		
MW-9	10/12/93		8.08	5.66	0.08	2.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	02/15/94			5.32	0.05	2.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05/11/94			5.57	0.00	2.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	08/01/94			6.25	0.00	1.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10/18/94			5.59	0.13	2.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	01/13/95			4.42	0.14	3.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	04/13/95			4.06	0.11	4.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	07/11/95			4.21	0.08	3.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/02/95			5.22	0.05	2.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	02/05/96			4.76	0.01	3.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	04/24/96			4.62	0.09	3.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	07/15/96			5.11	0.04	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	07/30/96			5.15	0.00	2.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/04/96			6.75	0.01	1.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05/17/97	DUP	-	-	-	-	97,000	-	-	16,000	8,200	2,300	17,300	39,000	-	-	-	-	-	-	-	-	-	-
	05/17/97		8.08	5.42	0.00	2.66	97,000	-	-	16,000	7,700	2,300	18,400	40,000	-	-	-	-	-	-	-	-	-	7.0
	08/11/97	DUP	-	-	-	-	100,000	-	-	14,000	360	3,200	5,790	27,000	-	-	-	-	-	-	-	-	-	-
	08/11/97		8.08	5.37	0.00	2.71	71,000	-	-	12,000	340	2,100	4,300	26,000	-	-	-	-	-	-	-	-	-	9.1
	11/17/97	DUP	-	-	-	-	100,000	-	-	24,000	5,300	3,500	19,300	35,000	-	-	-	-	-	-	-	-	-	-
	11/17/97		8.08	5.62	Sheen	2.46	100,000	-	-	22,000	4,800	3,100	17,900	32,000	-	-	-	-	-	-	-	-	-	8.3
	01/29/98		4.07	Sheen	4.01	250,000	-	-	20,000	21,000	3,100	18,500	110,000	-	-	-	-	-	-	-	-	-	-	6.6
	01/29/98	DUP	-	-	-	-	250,000	-	-	20,000	20,000	3,100	18,400	110,000	-	-	-	-	-	-	-	-	-	-
	06/22/98		8.08	4.28	0.00	3.80	280,000	-	-	21,000	18,000	3,800	21,200	110,000	-	-	-	-	-	-	-	-	-	5.8
	06/22/98	DUP	-	-	-	-	290,000	-	-	20,000	17,000	3,800	21,200	110,000	-	-	-	-	-	-	-	-	-	-
	12/30/98		8.08	4.95	0.00	3.13	150,000	-	-	10,000	3,800	2,000	9,600	86,000	-	-	-	-	-	-	-	-	-	-
	03/09/99			3.95	0.00	4.13	82,000	-	-	6,800	570	1,400	4,700	100,000	-	-	-	-	-	-	-	-	-	-
06/23/99			5.12	0.00	2.96	41,000	-	-	11,000	820	2,300	5,200	92,000	-	-	-	-	-	-	-	-	-	-	
09/23/99			4.74	0.00	3.34	57,000	-	-	12,000	5,400	1,900	9,500	89,000	-	-	-	-	-	-	-	-	-	-	
12/28/99			4.58	0.00	3.50	46,000	-	-	15,000	490	2,500	3,500	100,000	-	-	-	-	-	-	-	-	-	-	
03/22/00			3.90	0.00	4.18	86,000	-	-	18,000	1,800	2,300	6,800	120,000	-	-	-	-	-	-	-	-	-	-	
05/26/00			4.15	0.00	3.93	82,000	-	-	17,000	680	1,800	3,800	100,000	-	-	-	-	-	-	-	-	-	-	
09/06/00			4.47	0.00	3.61	100,000	-	-	19,000	280	2,400	6,400	84,000	-	-	-	-	-	-	-	-	-	-	

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments					
MW-9	09/15/00	INA	8.08	4.34	0.00	3.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GW Elev. Estimated				
	12/11/00			4.41	0.00	3.67	110,000	-	-	14,400	768	2,610	6,670	123,000	-	-	-	-	-	-	-	-	-	-		-	-		
	03/29/01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
	06/26/01			-	5.03	0.13	3.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
	09/19/01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
	12/28/01			-	3.73	0.00	4.35	110,000	-	-	15,000	1,500	2,280	5,530	60,900	-	-	-	-	-	-	-	-	-		-	-	-	
	03/12/02			-	4.93	0.00	3.15	88,000	-	-	12,500	2,600	2,800	8,950	44,000	-	-	-	-	-	-	-	-	-		-	-	-	
	06/13/02			-	4.13	0.00	3.95	59,000	-	-	9,870	161	2,560	5,560	35,600	-	-	-	-	-	-	-	-	-		-	-	-	-
	09/06/02			-	4.39	0.00	3.69	47,000	-	-	10,000	<100	2,100	4,600	31,000	-	-	-	-	-	-	-	-	-		-	-	-	-
	12/13/02			-	3.97	0.00	4.11	57,000	-	-	11,000	1,000	2,300	5,800	28,000	-	-	-	-	-	-	-	-	-		-	-	-	-
	02/19/03	-	3.25	0.00	4.83	76,000	-	-	10,000	2,100	3,000	8,900	11,000	-	-	-	-	-	-	-	-	-	-	-	-	-			
	06/06/03	-	3.94	0.00	4.14	66,000	-	-	9,000	<500	2,500	4,400	17,000	<20,000	<500	<500	<500	<500	<100,000	-	-	-	-	-	-				
	08/07/03	-	3.92	Sheen	4.16	53,000	-	-	7,600	<250	2,600	4,700	17,000	<10,000	<250	<250	350	<50,000	<250	<250	-	-	-	-	-	-			
	11/20/03	-	4.89	0.00	3.19	40,000	-	-	6,800	<250	860	1,100	16,000	12,000	<250	<250	<250	<50,000	-	-	-	-	-	-	-	-			
	04/28/04	-	3.19	Sheen	4.89	47,000	-	-	5,600	690	2,300	6,800	8,500	<5,000	<120	<120	170	<25,000	<120	<120	-	-	-	-	-	-			
	08/26/04	-	3.61	0.00	4.47	35,000	-	-	3,700	500	1,300	5,300	6,500	2,600	<50	<50	140	-	<50	<50	-	-	-	-	-	-			
	12/01/04	-	3.99	0.00	4.09	36,000	-	-	3,500	<250	1,200	4,300	8,300	<10,000	<250	<250	<250	<50,000	<250	<250	-	-	-	-	-	-			
	02/02/05	-	3.71	Sheen	4.37	21,000	-	-	1,800	130	670	2,000	3,600	5,600	<50	<50	88	<10,000	<50	<50	-	-	-	-	-	-			
	04/25/05	-	10.55	3.31	Sheen	7.24	5,900	-	-	190	<5.0	120	77	540	1,400	<5.0	<5.0	14	<1,000	<5.0	<5.0	-	-	-	-	-			
	09/30/05	-	4.02	0.00	6.53	26,000	-	-	2,400	360	1,600	4,200	2,400	520	<20	<20	61	<2,000	<20	<20	-	-	-	-	-	-			
12/28/05	-	2.99	0.00	7.56	14,000	-	-	1,400	22	350	450	2,200	1,800	<20	<10	49	<2,000	<10	-	-	-	-	-	-	-				
03/23/06	-	2.50	0.00	8.05	4,100	-	-	2,200	<10	130	110	330	2,400	<20	<10	<10	<2,000	<10	<10	-	-	-	-	-	-				
06/05/06	-	3.34	0.00	7.21	8,200	-	-	2,500	79	500	1,200	1,800	1,100	<25	<13	75	<2,500	<13	<13	-	-	-	-	-	-				
09/19/06	-	4.06	0.00	6.49	9,000	-	-	2,600	15	440	370	3,100	3,900	<25	<13	100	<6,300	<13	<13	-	-	-	-	-	-				
12/01/06	-	3.88	0.00	6.67	5,400	-	-	1,600	15	310	140	1,400	2,400	<25	<13	46	<6,300	<13	<13	-	-	-	-	-	-				
03/01/07	-	2.79	0.00	7.76	6,300	-	-	250	<13	270	75	240	580	<25	<13	<13	<6,300	<13	<13	-	-	-	-	-	-				
06/01/07	-	3.53	0.00	7.02	6,500	-	-	980	16	250	95	1,800	2,300	<25	<13	50	<6,300	<13	<13	-	-	-	-	-	-				
09/13/07	-	4.78	0.00	5.77	4,500	-	-	170	14	79	27	640	7,300	<25	<13	28	<6,300	<13	<13	-	-	-	-	-	-				
11/21/07	-	4.41	0.00	6.14	4,600	-	-	790	<13	97	34	2,000	3,500	<25	<13	42	<6,300	<13	<13	-	-	-	-	-	-				
MW-10	04/25/05		12.53	8.37	0.00	4.16	<50	-	-	<0.50	<0.50	<0.50	<0.50	1.5	<20	<0.50	<0.50	<0.50	<100	<0.50	<0.50	-	-	-	-				
	09/30/05			8.41	0.00	4.12	<50	-	-	<0.50	<0.50	<0.50	<1.0	1.5	<5.0	<0.50	<0.50	<0.50	<50	<0.50	<0.50	-	-	-	-	-			
	12/28/05			7.78	0.00	4.75	<50	-	-	<0.50	<0.50	<0.50	<1.0	0.78	<5.0	<1.0	<0.50	<0.50	<100	<0.50	-	-	-	-	-	-			
	03/23/06			7.77	0.00	4.76	<50	-	-	<0.50	<0.50	<0.50	<1.0	0.67	<5.0	<1.0	<0.50	<0.50	<100	<0.50	<0.50	-	-	-	-	-			
	06/05/06			8.38	0.00	4.15	<50	-	-	<0.50	<0.50	<0.50	<1.0	1.8	<5.0	<1.0	<0.50	<0.50	<100	<0.50	<0.50	-	-	-	-	-			
	09/19/06			7.99	0.00	4.54	<50	-	-	<0.50	<0.50	<0.50	<1.0	0.59	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-	-			
	12/01/06			5.47	0.00	7.06	<50	-	-	<0.50	<0.50	<0.50	<1.0	0.89	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-	-			
	03/01/07			7.92	0.00	4.61	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-	-			
	06/01/07			8.55	0.00	3.98	<50	-	-	<0.50	<0.50	<0.50	<1.0	1.2	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-	-			
	09/13/07			8.71	0.00	3.82	<50	-	-	<0.50	<0.50	<0.50	<1.0	0.94	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-	-			
11/21/07	8.84	0.00	3.69	<50	-	-	<0.50	<0.50	<0.50	<1.0	2.2	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-	-	-					
MW-11	04/25/05		14.55	9.29	0.00	5.26	<50	-	-	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	<0.50	<0.50	<100	<0.50	<0.50	-	-	-	-				
	09/30/05			10.23	0.00	4.32	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<50	<0.50	<0.50	-	-	-	-	-			
	12/28/05			9.09	0.00	5.46	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<100	<0.50	-	-	-	-	-				
	03/23/06			8.75	0.00	5.80	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<100	<0.50	<0.50	-	-	-	-				
	06/05/06			9.47	0.00	5.08	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<100	<0.50	<0.50	-	-	-	-				
	09/19/06			10.16	0.00	4.39	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-	-			

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Well No.	Date	Notes	TOC Elevation (ft-MSL)	Depth to Water (feet)	Measured SPH Thickness (feet)	Calc. GW Elev. (ft-MSL)	GRO (µg/L)	DRO (µg/L)	TOG	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	HVOC	D.O. (mg/L)	Comments
MW-11	12/01/06		14.55	10.46	0.00	4.09	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	
	03/01/07			9.62	0.00	4.93	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	
	06/01/07			9.97	0.00	4.58	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	
	09/13/07			10.42	0.00	4.13	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	
	11/21/07			10.64	0.00	3.91	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	
QC-2	11/05/92		-	-	-	-	<50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	
	10/12/93			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	
	02/15/94			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	
	05/11/94			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	
	08/01/94			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	
	10/18/94			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	
	01/13/95			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	
	04/13/95			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	
	07/11/95			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	-	-	-	-	-	-	-	-	-	-	
	11/02/95			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<5.0	-	-	-	-	-	-	-	-	-	
	02/05/96			-	-	-	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	
	04/24/96			-	-	-	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	
	07/16/96			-	-	-	<50	-	-	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	
QCTB	09/30/05		-	-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	12/28/05			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	03/23/06			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	06/05/06			-	-	-	50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	09/19/06			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	12/01/06			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	03/01/07			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	06/01/07			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	09/13/07			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	
	11/21/07			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	

TABLE 2
Historical Groundwater Monitoring and Analytical Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, CA

Notes:

GRO = Gasoline range organics

DRO = Diesel range organics

TOG = Total petroleum hydrocarbons as oil and grease

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

MTBE = Methyl tert-butyl ether

TBA = Tert-butyl alcohol

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

TAME = Tert-amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

HVOC = Halogenated volatile organic compounds

D.O. = Dissolved Oxygen; rounded to the nearest tenth

SPH = Separate-phase hydrocarbons

TOC = Top of casing (surveyed)

Calc. GW Elev. = Calculated groundwater elevation = TOC - Depth to Water + 0.75*(Measured SPH Thickness); assuming a spec

ft-MSL = feet above mean sea level

mg/L = Milligrams per liter

µg/L = Micrograms per liter

< = Analyte was not detected above the specified method detection limit (MDL); except after 2006 Quarter 2 where reporting limits are used.

- = Not measured or analyzed

N = Identity of contaminant uncertain (hydrocarbon pattern atypical of indicated analyte); see lab report

ND = Not detected (historical data; reporting limit not reported)

DUP = Duplicate sample

INA = Well inaccessible; not sampled

NS = Well not sampled

Beginning in the first quarter 2003, TPHg and VOCs analyzed by EPA Method 8260B.

TABLE 3
Groundwater Flow Direction and Hydraulic Gradient Data
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, California

Monitoring Date	Groundwater Flow Direction	Groundwater Gradient (foot per foot)
03/29/01	South	0.020
06/27/01	South	0.020
09/19/01	South	0.020
12/28/01	South	0.035
03/12/02	South-Southeast	0.018
06/13/02	Northwest to Southeast	0.007
09/06/02	South	0.010
12/13/02	Southeast	0.020
02/19/03	West-Southwest	0.025
06/06/03	East-Southwest	0.018 - 0.041
08/07/03	East-Southwest	0.019 - 0.038
11/20/03	Northwest to Southeast	0.014 - 0.04
02/05/04	Northwest to Southeast	0.020
04/28/04	West-Southwest	0.023 - 0.025
08/26/04	South-Southwest	0.036
12/01/04	Northwest to Southeast	0.020
02/02/05	South	0.020
04/25/05	Southwest	0.020
09/30/05	Southwest	0.081
12/28/05	Southwest	0.081
03/23/06	Southwest	0.040
06/05/06	Southwest	0.020
09/19/06	Southwest	0.013
12/01/06	Southwest	0.030
03/01/07	Southwest	0.010
06/01/07	Southwest	0.025
09/13/07	Southwest	0.025
11/21/07	Southwest	0.025
	Average:	0.027

Notes:

Number of monitoring events: 28

- The groundwater was flowing in two directions (Northwest and Southeast) during the second quarter of 2002, the fourth quarter of 2003, and the first and fourth quarters of 2004.

- Data included in this table were found from current and historical documents.

TABLE 4
Well Construction Details
76 (Former BP) Service Station No. 11126
1700 Powell Street, Emeryville, California

Well I.D.	Construction Date	Elevation (TOC feet above MSL)	Boring Depth (feet bgs)	Borehole Diameter (inches)	Casing Diameter (inches)	Casing Material	Slot Size (inches)	Screened Interval (feet bgs)	Filter Pack Interval (feet bgs)	Bentonite Seal Interval (feet bgs)	Cement Seal Interval (feet bgs)	Comments
Groundwater Monitoring Wells												
MW-1	10/20/92	7.78	12	8	2	PVC	0.01	4-12	3.5-12	3-3.5	1-3	
MW-2	10/20/92	8.58	12	8	2	PVC	0.01	5-12	4-12	3-4	1-3	
MW-3	10/20/92	8.25	12	8	2	PVC	0.01	5-12	4-12	3-4	1-3	
MW-4	10/20/92	8.12	12	8	2	PVC	0.01	5-12	4-12	3-4	0.5-3	
MW-5	09/02/93	7.69	13.5	8	2	PVC	0.01	3.5-13.5	3-13.5	2.5-3	0.5-2.5	
MW-6	09/03/93	8.52	14	8	2	PVC	0.01	4-14	3-14	2.5-3	0.5-2.5	
MW-7	09/03/93	7.61	14	8	2	PVC	0.01	4-14	3-14	2.5-3	0.5-2.5	
MW-8	09/03/93	8.8	14	8	2	PVC	0.01	4-14	3-14	2.5-3	0.5-2.5	
MW-9	09/03/93	8.08	14	10	4	PVC	0.01	4-14	3-14	2.5-3	0.5-2.5	
MW-10	04/15/05	12.53	20	8	2	PVC	0.01	7-17	6-17.5	5-6	0.5-5	Backfilled with bentonite at 17-20'
MW-11	04/15/05	14.55	24	8	2	PVC	0.01	7-17	6-17	5-6	0.5-5	Backfilled with bentonite at 17-24'

Notes:

TOC = top of casing

MSL = mean sea level

bgs = below ground surface

Elevations are in US survey feet, Vertical Datum is NGVD29

**ATTACHMENT A
PREVIOUS INVESTIGATIONS
AND SITE HISTORY SUMMARY**

Quarterly Groundwater Monitoring Progress Report – Fourth Quarter 2007
76 (Former BP) Service Station No.11126
1700 Powell Street
Emeryville, California

PREVIOUS INVESTIGATIONS AND SITE HISTORY SUMMARY

A soil gas survey was conducted on April 10, 1989 by Target Environmental Services, Inc. (TES) on behalf of Mobil Oil Corporation (Mobil) prior to the transfer of ownership of the property to BP. Soil gas samples were collected from 19 sampling points at an approximate depth of four feet below ground surface (bgs) across the site. Results indicated that gasoline may have entered the site subsurface at the pump islands, UST complex, or along the product supply lines. Total volatile hydrocarbons were detected in soil vapor using a flame-ionization detector (FID) at concentrations up to 932,000 micrograms per Liter ($\mu\text{g/L}$), with the highest detections detected in the vicinity of the pump islands and east of the USTs (TES, *Soil Gas Survey*, April 1989).

On April 24, 1989, one 550-gallon waste oil UST was removed from the site, and was replaced with a suspected 1,000-gallon waste oil UST in a separate excavation. A soil sample collected from beneath the UST (seven feet bgs) and sidewalls (nine feet bgs, approximately six inches above groundwater) of the initial waste oil UST excavation contained total oil and grease (TOG), total petroleum hydrocarbons as diesel (TPHd), and total petroleum hydrocarbons as gasoline (TPHg) up to concentrations of 340 parts per million (ppm), 27 ppm, and 9.6 ppm, respectively. A capillary fringe soil sample (six inches above groundwater) collected on April 27, 1989 from the sidewall of the new waste oil UST excavation, located approximately 20 feet south of the former waste oil UST location, contained TOG and TPHd at respective concentrations of 10,000 ppm and 370 ppm. An *Underground Storage Tank Unauthorized Release (Leak) / Contamination Site Report* dated May 2, 1989 documenting the past occurrence of a release of unknown quantity was subsequently submitted to Alameda County Environmental Health Department (ACEHD), Hazardous Materials Division (EMCON, *Baseline Assessment Report*, December 27, 1994).

In October 1992, Alisto Engineering (Alisto) performed a preliminary site assessment to investigate the extent of petroleum hydrocarbon impacts beneath the site. Eight soil borings (B-1 through B-3, B-4A, B-4B, B-4, B-5A, and B-5) were advanced to depths ranging from four feet to 20 feet bgs. Auger refusal was encountered during the drilling of borings B-1, B-4A, B-4B, and B-5A; and borings B-2 through B-5 were converted to monitoring wells MW-1 through MW-4, respectively. Soil samples collected to a depth of 5.5 feet bgs from the borings advanced in the immediate vicinity of the USTs and dispenser islands contained TPHg and benzene at maximum concentrations of 280 ppm and 0.94 ppm, respectively. Groundwater samples collected from the wells in November 1992 contained elevated concentrations of TPHg (12,000 parts per billion [ppb]) and benzene (3,900 ppb). Groundwater from well MW-3 contained TPHd at 690 ppb. The direction of groundwater flow was established toward the southwest (Alisto, *Supplemental Site Investigation Report*, April 8, 1994).

In September 1993, Alisto supervised the installation of five additional groundwater monitoring wells (MW-5 through MW-9). Soil samples collected from approximately 4.5 feet bgs from borings MW-5 and MW-9 contained TPHg and benzene, toluene, ethylbenzene, and xylenes (BTEX) up to respective concentrations of 4,600 ppm, 76 ppm, 330 ppm, 130 ppm, and 420 ppm. The highest concentrations of petroleum hydrocarbons were found in groundwater from well MW-2; maximum concentrations of TPHg and benzene were detected at 4,500 $\mu\text{g/L}$ and

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3,400 µg/L, respectively. Well MW-9, which is located in the area of the product dispensers contained liquid phase hydrocarbons (LPH) at an initial thickness of 0.08 feet. A product recovery canister was subsequently installed to assist in the removal of LPH from beneath the site. The direction of groundwater flow was generally toward the east to southeast. Off-site sources identified in the site vicinity included former Pabco Products, a paint, roofing, and floor coverings manufacturing facility, which stored oil in aboveground storage tanks (ASTs) at the site (located on and northeast of the site); former Auto Freight Depot (southeast corner of Shellmound Road and Powell Street, approximately 450 feet east of the site); former Truck Repair Shop (approximately 480 feet east to southeast of the site), which stored diesel and gasoline in ASTs; and former Pacific Intermountain Express Truck Terminal (approximately 440 feet southeast of the site), which utilized ASTs and USTs.

In October 1994, EMCON conducted a supplementary site assessment to establish baseline subsurface conditions prior to the purchase of the site by Tosco Corporation (Tosco, now ConocoPhillips) from BP. Three soil borings (THP-1, TB-2 and THP-3, and also respectively referred to as TB-1, TB-2 and TB-3) were advanced on-site using cone penetrometer testing (CPT) equipment. Refusal was encountered in TB-2 and TPH-3 at 10 feet and 4.5 feet bgs, respectively. Soil samples from borings THP-1 and THP-3 contained TPHg and benzene up to 290 ppm and 1.6 ppm, respectively; TPHd was detected in soil from THP-1 (33 ppm); and TOG was detected in the 4.5-foot sample from THP-3 (1,800 ppm). Hydropunch groundwater samples from borings THP-1 and THP-3 contained concentrations of TPHg up to 4,600 ppb, and benzene up to 800 ppb. TOG (3,300 ppb), trans-1,2-dichloroethane (DCE, 2.4 ppb), cis-1,2-DCE (41 ppb), and 1,2-dichloroethane (1,2-DCA, 6.4 ppb) were also detected in the groundwater sample from boring THP-1. EMCON personnel returned to the site on December 5, 1994 to inspect the fuel dispensers for the presence of spill containment boxes, and for indications of leakage. No spill containment boxes were in place, and staining was observed beneath the northeast and southwest fuel dispensers. Photo-ionization detector (PID) readings collected from backfill material beneath the dispensers indicated the presence of volatile organic compounds (VOCs) ranging from 27 ppm to 1,063 ppm. Grab soil samples collected from beneath the fuel dispensers (TD-1, TD-2, TD-3 and TD-4) indicated the presence of TPHg and TPHd up to concentrations of 1,400 ppm and 4,600 ppm, respectively (EMCON, *Baseline Assessment Report*, December 27, 1994).

In February 1995, Alisto performed baildown testing at the site. Using the Aqtesolv groundwater modeling program (Geraghty and Miller, 1991), the average hydraulic conductivity (K) and transmissivity (T) were estimated at 5.97E-05 centimeters per second (cm/sec), and 1.16E-06 square meters per second, respectively. The calculated K value was consistent with the expected K values for the soil type encountered beneath the site (1×10^{-1} to 10^{-6} cm/sec), which consisted predominantly of silty clay containing interbedded layers of sand (Alisto, *Baildown Test Results*, February 10, 1995).

In April 1999, Environmental Resolutions Inc. (ERI) performed a five-day soil vapor extraction (SVE) test at the site (ERI, 1999). UST backfill wells (TP-1 and TP-2) were used for SVE, and wells MW-1, MW-2, and MW-4 were utilized as observation wells. Results of vapor samples from well TP-1 indicated a decrease in methyl tertiary butyl ether (MtBE) concentrations from an initial concentration of 4,820 µg/L to 300 µg/L during the test. TPHg concentrations also

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decreased from an initial concentration of 12,800 µg/L to 464 µg/L during the test. ERI estimated that approximately 21.5 pounds of TPHg and 16.7 pounds of MtBE were removed by SVE. SVE flow rates ranged from 88 to 98 standard cubic feet per minute (scfm) at an applied vacuum of 12 inches of mercury. No effective radius of influence was measured in native soil outside the UST backfill (ERI, *Extended Soil Vapor Extraction Test Report*, July 20, 1999).

Following the performance of the SVE test by ERI, SECOR observed the removal of one 550-gallon, fiberglass, waste oil UST, along with a clarifier and two hoists (Hoist No. 1 and Hoist No. 2) from the former service bays as part of site remodeling activities on April 28, 1999. The waste oil UST and Hoist No. 2, were removed from two separate excavations, and the clarifier and Hoist No. 1 were removed from another excavation. One soil sample (OILT-1) from the waste oil UST excavation contained TPHg (180 milligrams per kilogram [mg/kg]), benzene (0.19 mg/kg), TPHd (370 mg/kg), and total petroleum hydrocarbons as motor oil (TPHmo, 7,000 mg/kg). A grab groundwater sample collected from 7.5 feet bgs from the waste oil UST excavation contained TPHd (560 µg/L), TPHmo (710 µg/L), benzene (10 µg/L), and MtBE (2,400 µg/L). Soil samples were collected from beneath the former clarifier (four feet bgs), former Hoist No. 1 (eight feet bgs), and the former Hoist No. 2 (eight feet bgs); TPHg, TPHd, TPHmo, benzene, and lead were detected at maximum respective concentrations of 3.0 mg/kg (clarifier), 870 mg/kg (Hoist No. 1), 4,200 mg/kg (Hoist No. 1), 0.013 mg/kg (clarifier), and 22,000 mg/kg (clarifier). MtBE was not detected in soil from the excavations (SECOR, *Removal of Waste Oil UST, Hoists No. 1 and No. 2 and Clarifier Sump*, June 29, 1999).

Based on the presence of petroleum hydrocarbons in soil, the clarifier and hoist areas were over-excavated on May 7, 1999. Soil samples collected from the clarifier excavation at five feet bgs, and the hoist excavations at five feet bgs contained concentrations of TPHg up to 1,200 mg/kg (Hoist No. 1), TPHd up to 1,200 mg/kg (Hoist No. 1), TPHmo up to 5,000 mg/kg (Hoist No. 1), and lead up to 410 mg/kg (clarifier). Over-excavation confirmation soil samples were not analyzed for the presence of BTEX and other metals. A composite sample collected from the pea gravel was also analyzed for the presence of petroleum hydrocarbons; based on the relatively minor levels of TPHd and TPHmo, relatively low to non-detectable levels of BTEX, and non-detectable concentrations of MtBE, the excavated pea gravel was used as backfill for the waste oil UST excavation. Approximately 17.41 tons of soil were removed from the site as a result of the initial excavation and over-excavation activities (SECOR, *Removal of Waste Oil UST, Hoists No. 1 and No. 2 and Clarifier Sump*, June 29, 1999).

On March 28 and 30, 2001, Gettler-Ryan Incorporated (GRI) oversaw the removal and replacement of product lines, dispensers, and the station canopy. During the removal of the product lines, petroleum hydrocarbon-stained soil and odors were observed within the excavated trench. The entire length of the former product line trench was subsequently over-excavated an additional 1.5 feet to 3.5 feet bgs prior to sampling, resulting in the removal of approximately 150 cubic yards of soil from beneath the site. The former trenches were backfilled with clean, imported backfill as it was discovered that the former trenches were not suitable for re-use due to insufficient grading. An additional 100 cubic yards of soil were excavated to accommodate the new product lines. A total of 13 confirmation soil samples were collected from product line, dispenser and trench excavations by SECOR from the initial excavation and following over-excavation of soil. TPHg and TPHd were detected in the 13

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samples at concentrations up to 5,300 mg/kg and 630 mg/kg in the initial excavation soil samples, respectively. The highest concentrations of petroleum hydrocarbons were detected in a 3.5-foot soil sample from a former product line location near well MW-9. MtBE was detected in 12 of the 13 samples up to 8.4 mg/kg. A total of 400 cubic yards of soil were removed from the site, and approximately 15,000 gallons of groundwater were removed from beneath the site during the dewatering of the UST cavity (SECOR, *Removal and Replacement of Product Lines, Dispensers and Canopy*, May 4, 2001).

Between June and October 2004 in accordance with their July 11, 2003 *Interim Remedial Action and Off-Site Assessment Workplan* and the April 20, 2004 *Modifications to Interim Remedial Action and Offsite Assessment Work Plan*, URS Corporation (URS) implemented biweekly groundwater batch extraction at the site utilizing a vacuum truck (URS, *Off-Site Soil and Water Investigation Report*, June 15, 2005). Over this time period, groundwater was periodically extracted from wells MW-1, MW-2, MW-4, MW-8, and MW-9, which resulted in the removal of approximately 125 gallons of groundwater. Due to the limited groundwater recovery and the slow recharge of groundwater levels in the wells, URS discontinued groundwater batch extraction upon approval of Alameda County Health Care Services Agency (ACHCSA). Based on information within the Regional Water Quality Control Board – San Francisco Bay Region's (RWQCB-SFBR) June 1999 *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report* classifying the area of the site as a Zone B Groundwater Management Zone, an area where groundwater is unlikely to be used as a drinking water source and monitored natural attenuation (MNA) was the recommended remedial alternative based on this designation, URS recommended the submittal of a corrective action plan (CAP) proposing MNA as a potential remedial option for the site (URS, *Discontinuation of Interim Remedial Action, ACEH Case #RO0000066*, October 7, 2004).

In June 2005, URS supervised the installation of two off-site, downgradient groundwater monitoring wells (MW-10 and MW-11) on the Powell Street Plaza property, located south of the site. Soil samples from both of the borings at depths of seven feet bgs (MW-10), and 18 and 23.5 feet bgs did not contain petroleum hydrocarbons or fuel oxygenates at or above laboratory method reporting limits (MRLs). With the exception of a concentration of MtBE in well MW-10 (1.5 µg/L), petroleum hydrocarbons and fuel oxygenates were not detected in groundwater from the wells. The direction of groundwater flow was toward the southwest at a calculated hydraulic gradient of 0.02 feet per foot (ft/ft). URS concluded that the off-site, lateral extent of dissolved impacts had been delineated during this investigation. URS again recommended the submittal of a CAP that will include an outline of possible remedial alternatives, and a proposal for implementing a selected remedial strategy based on the evaluation of historical and current subsurface site conditions, and the past performance of remedial feasibility testing and interim remedial action at the site (URS, *Off-Site Soil and Water Investigation Report*, June 15, 2005).

SENSITIVE RECEPTOR SURVEY

A sensitive receptor survey was initially performed by Alisto during site assessment activities in October 1992. The results of the survey indicated the presence of a surface water body within 1,000 feet of the site. Alisto further indicated that the aquifer beneath the site was not a potential source of drinking water (EMCON, *Baseline Assessment Report*, December 27, 1994).

**ATTACHMENT B
MONITORING AND SAMPLING FIELD NOTES AND SECOR'S
STANDARD GROUNDWATER MONITORING AND SAMPLING
PROCEDURES**

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SECOR INTERNATIONAL INCORPORATED

STANDARD PROCEDURE FOR EQUIPMENT DECONTAMINATION

Equipment that could potentially contact subsurface media and compromise the integrity of the samples is carefully decontaminated prior to sampling. Samplers, groundwater pumps, liners and other equipment are decontaminated in an Alconox scrub solution and double rinsed in clean tap water rinse followed by a final distilled water rinse.

Waste water generated during decontamination of equipment is pumped into a SECOR truck-mounted water tank. The water is then transferred into 55-gallon, steel, California Department of Transportation (DOT)-approved drums pending waste characterization and disposal by a BP-approved subcontractor.

SECOR INTERNATIONAL INCORPORATED

STANDARD PROCEDURE FOR GROUNDWATER SAMPLING

Depth to Groundwater/LPH Thickness Measurements

Prior to purging each of the wells, the depth to groundwater and thickness of liquid phase hydrocarbons (LPH), if present, within each well casing is measured to the nearest 0.01 foot using either an electronic Solinst water level indicator or an electronic oil-water interface probe. Measurements are taken from a point of known elevation on the top of each well casing as determined in accordance with previous surveys.

Groundwater Monitoring Well Purging

Where purging is conducted prior to sampling wells that do not contain LPH, a dedicated 1-inch diameter polyvinyl chloride (PVC) "stinger," bailer, or groundwater pump may be used to purge the wells. During purging a minimum of three well volumes, measured as the annular space of the well casing below the groundwater surface, are removed from each well. However, in the case of very slow recharging wells, purging is deemed sufficient if the well contents are evacuated during purge operations. Unless recharge takes more than two hours, wells are sampled once the well is recharged to within 80 percent of pre-purge groundwater elevation. For very slow recharging wells (wells pumped dry during purging), samples may be collected after two hours of recharge.

To help assure that the collected samples are representative of fresh formation water, the conductivity, temperature, and pH of the delivered effluent are monitored and recorded using a Cambridge Hydac meter, or another meter similar in nature during purge operations. Purge operations are determined to be sufficient once successive measurements of pH, conductivity, and temperature stabilize to within +/- 10 percent.

Groundwater Sample Acquisition and Handling

Following purging operations, groundwater samples are collected from each of the wells, using pre-cleaned, single-sample polypropylene, disposable bailers. The groundwater sample is discharged from the bailer to the sample container through a bottom emptying flow control valve to minimize volatilization.

Collected water samples are discharged directly into laboratory provided, pre-cleaned, 40-milliliter glass vials and sealed with Teflon-lined septum, screw-on lids. Labels documenting sample number, well identification, collection date and time, type of sample and type of preservative (if applicable) are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under chain-of-custody to a laboratory certified by the State of California Department of Health Services Environmental Laboratory Accreditation Programs to perform the specified tests.

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Trip Blanks

To help assure the quality of the collected samples and to evaluate the potential for cross contamination during transport to the laboratory, a distilled-water trip blank accompanies the samples in the cooler. The trip blank is analyzed for the presence of volatile organic compounds of concern. For petroleum hydrocarbons, the trip blank is typically analyzed for GRO, BTEX, and MtBE by EPA Method 8260B.

Related Procedures:

- *Standard Procedure for Equipment Decontamination*

SECOR International Incorporated

HYDROLOGIC DATA SHEET

Gauge Date: 11-21-07

Project Name: 76 Former BP 11126

Field Technician: Raymond Goette

Project Number: 77BP.11126.01.0427/ 77CP.01731.40.1006

TOC = Top of Well Casing Elevation
 DTP = Depth to Free Product (FP or NAPL) Below TOC
 DTW = Depth to Groundwater Below TOC
 DTB = Depth to Bottom of Well Casing Below TOC

DIA = Well Casing Diameter
 ELEV = Groundwater Elevation
 DUP = Duplicate

WELL OR LOCATION	TIME	MEASUREMENT						PURGE & SAMPLE 4Q07	SHEEN CONFIRMATION (w/bailer)	COMMENTS
		TOC	DTP	DTW	DTB	DIA	ELEV			
9 MW-1	743	10.16		3.70	12	2.0		Yes		
11 MW-2	750	11.39		5.19	12	2.0		Yes		
5 MW-3	734	10.73		6.16	12	2.0		Yes		
7 MW-4	740	10.58		5.68	12	2.0		Yes		
8 MW-5	705	10.18		5.34	13.5	4.0		Yes		
3 MW-6	728	11.01		6.67	14	2.0		Yes		
4 MW-7	731	10.11		6.39	14	2.0		Yes		
6 MW-8	737	11.08		5.13	14	2.0		Yes		
6 MW-9	746	10.55		4.41	14	4.0		Yes		
2 MW-10	725	12.53		8.84	20	2.0		Yes		
1 MW-11	721	14.55		10.64	24	2.0		Yes		

SITE VISITATION REPORT

76 (Former BP) Service Station 11126 - 4Q07 M&S Event

Name(s) Raymond Goerke Date: 11-21-07
Arrival Time: 0700 Departure Time: 1300

Time of Arrival Call-In: 0700
Time of Departure Call-In _____
Who did you call? _____

DRUM INVENTORY

1 WATER _____ CARBON _____ Drum Location: _____
SOIL 0 EMPTY _____

METER CALIBRATIONS

pH meter calibration readings 4.01 7.01 10.01 DO meter calibrations _____
LEL calibration readings _____ ORP calibrations _____

HEALTH AND SAFETY ASSESSMENT

HASP
PPE
ERP
Traffic
Exclusion Zones

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES

QMS.

We arrived on site went over HASP and paperwork. We opened all wells. I then gauged them all. We began to purge and sample. Traffic Control arrived. I went over. Paper work and HASP with him. Then we went to MW-5 to purge and sample. We finished and met back at the station. We finished our day and took samples to the lab.

We retapped all bolt holes and replaced bolts where needed.

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RB WELL I.D.: MW-1
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RB SAMPLE I.D.: MW-1
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 1015 END (2400hr) 1027
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 1030
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) 2" (0.17) 3" (0.38) 4" (0.67) 5" (1.02) 6" (1.50) 8" (2.60) () _____

DEPTH TO BOTTOM (feet) = 12.0 CASING VOLUME (gal) = 1.41
 DEPTH TO WATER (feet) = 3.70 CALCULATED PURGE (gal) = 4.23
 WATER COLUMN HEIGHT (feet) = 8.3 ACTUAL PURGE (gal) = 4.5

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>1019</u>	<u>1.5</u>	<u>19.6</u>	<u>1243</u>	<u>6.66</u>	<u>clear</u>	<u>149.8</u>
	<u>1023</u>	<u>3.0</u>	<u>20.1</u>	<u>1548</u>	<u>6.63</u>		<u>77.93</u>
	<u>1027</u>	<u>4.5</u>	<u>20.5</u>	<u>1609</u>	<u>6.66</u>		<u>92.14</u>

SAMPLE DEPTH TO WATER: 3.71 SAMPLE INFORMATION SAMPLE TURBIDITY: 59.32

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: none **3 preserved voas; MW-3 -one 1-L HCl-preserved Amber**
 SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump Bailer (Teflon)
 Centrifugal Pump Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: disposable
 Pump Depth: _____

SAMPLING EQUIPMENT

Bladder Pump Bailer (Teflon)
 Centrifugal Pump Bailer (PVC or disposable)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: _____

WELL INTEGRITY: Good LOCK#: yes

REMARKS: Hand bailed well

SIGNATURE: Raymond Hoek Page ___ of ___

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RB WELL I.D.: MW-2
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RB SAMPLE I.D.: MW-2
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 1046 END (2400hr) 1051
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 1100
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 12.0 CASING VOLUME (gal) = 1.15
 DEPTH TO WATER (feet) = 5.19 CALCULATED PURGE (gal) = 3.47
 WATER COLUMN HEIGHT (feet) = 6.81 ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>1049</u>	<u>1</u>	<u>20.4</u>	<u>1142</u>	<u>6.64</u>	<u>clear</u>	<u>1100</u>
	<u>1051</u>	<u>2</u>	<u>20.5</u>	<u>1121</u>	<u>6.64</u>		<u>↓</u>
		<u>3</u>					
		<u>dry at 2.0 gal</u>					

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 5.21 SAMPLE TURBIDITY: 1100

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: yes **3 preserved voas; MW-3 -one 1-L HCl-preserved Amber**
 SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

____ Bladder Pump ____ Bailer (Teflon)
 ____ Centrifugal Pump ____ Bailer (PVC)
 ____ Submersible Pump ____ Bailer (Stainless Steel)
 ____ Peristaltic Pump ____ Dedicated _____
 Other: disposable
 Pump Depth: _____

SAMPLING EQUIPMENT

____ Bladder Pump ____ Bailer (Teflon)
 ____ Centrifugal Pump Bailer (____ PVC or disposable)
 ____ Submersible Pump ____ Bailer (Stainless Steel)
 ____ Peristaltic Pump ____ Dedicated _____
 Other: _____

WELL INTEGRITY: Good LOCK#: yes

REMARKS: Hand bailed well

SIGNATURE: Raymond Houck Page ____ of ____

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RG WELL I.D.: MW-3
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RG SAMPLE I.D.: MW-3
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 820 END (2400hr) 836
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 840
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) 2" (0.17) 3" (0.38) 4" (0.67) 5" (1.02) 6" (1.50) 8" (2.60) Other ()

DEPTH TO BOTTOM (feet) = 12.0 CASING VOLUME (gal) = 1.99
 DEPTH TO WATER (feet) = 6.16 CALCULATED PURGE (gal) = 2.97
 WATER COLUMN HEIGHT (feet) = 5.84 ACTUAL PURGE (gal) = 3.10

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>828</u>	<u>1</u>	<u>18.9</u>	<u>3.78</u>	<u>6.94</u>	<u>clear</u>	<u>66.83</u>
	<u>832</u>	<u>2</u>	<u>19.6</u>	<u>3.30</u>	<u>6.98</u>		<u>80.65</u>
	<u>836</u>	<u>3</u>	<u>20.1</u>	<u>3.60</u>	<u>6.99</u>		<u>81.50</u>

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 6.17 SAMPLE TURBIDITY: 68.93

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
3 preserved voas; MW-3 -one 1-L HCl-preserved Amber
 ODOR: None SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump Bailer (Teflon)
 Centrifugal Pump Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: disposable
 Pump Depth: _____

SAMPLING EQUIPMENT

Bladder Pump Bailer (Teflon)
 Centrifugal Pump Bailer (PVC or disposable)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: _____

WELL INTEGRITY: Good LOCK#: yes

REMARKS: Hand bailed well

SIGNATURE: Raymond Hanks Page ___ of ___

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RG WELL I.D.: MW-4
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RG SAMPLE I.D.: MW-4
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 946 END (2400hr) 950
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 1000
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 12.0 CASING VOLUME (gal) = 1.07
 DEPTH TO WATER (feet) = 5.68 CALCULATED PURGE (gal) = 3.22
 WATER COLUMN HEIGHT (feet) = 6.32 ACTUAL PURGE (gal) = 1.5

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>949</u>	<u>1</u>	<u>19.8</u>	<u>2120ms</u>	<u>7.00</u>	<u>cloudy</u>	<u>197.4</u>
_____	_____	<u>2</u>	_____	_____	_____	_____	_____
_____	_____	<u>3</u>	_____	_____	_____	_____	_____
_____	<u>950 Dry at 1.5 gal</u>		_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

SAMPLE DEPTH TO WATER: 6.45 SAMPLE INFORMATION SAMPLE TURBIDITY: 138.4

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
3 preserved voas; MW-3 -one 1-L HCl-preserved Amber
 ODOR: yes SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump Bailer (Teflon)
 Centrifugal Pump Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: disposable
 Pump Depth: _____

SAMPLING EQUIPMENT

Bladder Pump Bailer (Teflon)
 Centrifugal Pump Bailer (PVC or disposable)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: _____

WELL INTEGRITY: Good LOCK#: yes

REMARKS: Hand bailed well

SIGNATURE: Raymond Hoek

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RG WELL I.D.: MW-5
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RG SAMPLE I.D.: MW-5
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 907 END (2400hr) 916
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 920
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) 2" (0.17) 3" (0.38) 4" (0.67) 5" (1.02) 6" (1.50) 8" (2.60) Other ()

DEPTH TO BOTTOM (feet) = 13.5 CASING VOLUME (gal) = 1138
 DEPTH TO WATER (feet) = 5.34 CALCULATED PURGE (gal) = 4116
 WATER COLUMN HEIGHT (feet) = 8.16 ACTUAL PURGE (gal) = 310

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>916</u>	<u>1</u>	<u>20.6</u>	<u>1251</u>	<u>6.79</u>	<u>Cloudy</u>	<u>298.4</u>
	<u>943</u>	<u>2</u>	<u>21.4</u>	<u>836</u>	<u>6.65</u>	<u>↓</u>	<u>352.3</u>
	<u>916</u>	<u>3</u>	<u>21.5</u>	<u>284</u>	<u>6.62</u>	<u>↓</u>	<u>487.9</u>

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 5.35 SAMPLE TURBIDITY: 322.1

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
3 preserved voas; MW-3 -one 1-L HCl-preserved Amber
 ODOR: yes SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

____ Bladder Pump ____ Bailer (Teflon)
 ____ Centrifugal Pump ____ Bailer (PVC)
 Submersible Pump ____ Bailer (Stainless Steel)
 ____ Peristaltic Pump ____ Dedicated _____
 Other: disposable
 Pump Depth: _____

SAMPLING EQUIPMENT

____ Bladder Pump ____ Bailer (Teflon)
 ____ Centrifugal Pump ____ Bailer (____ PVC or ____ disposable)
 ____ Submersible Pump ____ Bailer (Stainless Steel)
 ____ Peristaltic Pump ____ Dedicated _____
 Other: _____

WELL INTEGRITY: Good LOCK#: yes

REMARKS: Hand bailed well

SIGNATURE: Raymond Hache Page ____ of ____

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RM WELL I.D.: MW-6
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RM SAMPLE I.D.: MW-6
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 1018 END (2400hr) 1030
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 1035
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 14.00 CASING VOLUME (gal) = 1.25
 DEPTH TO WATER (feet) = 6.67 CALCULATED PURGE (gal) = 3.74
 WATER COLUMN HEIGHT (feet) = 7.33 ACTUAL PURGE (gal) = 4.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>1024</u>	<u>2</u>	<u>21.3</u>	<u>2.56ms</u>	<u>7.05</u>	<u>Brown</u>	<u>91.00</u>
	<u>1027</u>	<u>3</u>	<u>21.5</u>	<u>2.42ms</u>	<u>7.06</u>		<u>107.7</u>
	<u>1030</u>	<u>4</u>	<u>21.3</u>	<u>2.31ms</u>	<u>7.08</u>	↓	<u>86.26</u>

SAMPLE DEPTH TO WATER: 7.03 SAMPLE INFORMATION SAMPLE TURBIDITY: 94.60

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: 0 **3 preserved voas; MW-3 -one 1-L HCl-preserved Amber**
 SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump Bailer (Teflon)
 Centrifugal Pump Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: _____
 Pump Depth: _____

SAMPLING EQUIPMENT

Bladder Pump Bailer (Teflon)
 Centrifugal Pump Bailer (_____ PVC or disposable)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: _____

WELL INTEGRITY: good LOCK#: yes
 REMARKS: Hand Bailed well.

SIGNATURE: [Signature] Page of

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RM WELL I.D.: MW-7
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RM SAMPLE I.D.: MW-7
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 1044 END (2400hr) 1056
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 1103
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 14.00 CASING VOLUME (gal) = 1.29
 DEPTH TO WATER (feet) = 6.39 CALCULATED PURGE (gal) = 3.88
 WATER COLUMN HEIGHT (feet) = 7.61 ACTUAL PURGE (gal) = 4.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>1050</u>	<u>2</u>	<u>22.2</u>	<u>3.03ms</u>	<u>7.18</u>	<u>clear</u>	<u>118.1</u>
	<u>1053</u>	<u>3</u>	<u>22.1</u>	<u>2.89ms</u>	<u>7.15</u>	<u>↓</u>	<u>102.0</u>
	<u>1056</u>	<u>4</u>	<u>22.0</u>	<u>2.87ms</u>	<u>7.11</u>	<u>↓</u>	<u>98.95</u>

SAMPLE DEPTH TO WATER: 6.98 SAMPLE INFORMATION SAMPLE TURBIDITY: 89.71

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: 0 **3 preserved voas; MW-3 -one 1-L HCl-preserved Amber**
 SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT
 _____ Bladder Pump _____ Bailer (Teflon)
 _____ Centrifugal Pump Bailer (PVC)
 _____ Submersible Pump _____ Bailer (Stainless Steel)
 _____ Peristaltic Pump _____ Dedicated _____
 Other: _____
 Pump Depth: _____

SAMPLING EQUIPMENT
 _____ Bladder Pump _____ Bailer (Teflon)
 _____ Centrifugal Pump Bailer (_____ PVC or disposable)
 _____ Submersible Pump _____ Bailer (Stainless Steel)
 _____ Peristaltic Pump _____ Dedicated _____
 Other: _____

WELL INTEGRITY: good LOCK#: yes

REMARKS: HAND Bailed Well.

SIGNATURE: _____ Page ___ of ___

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RM WELL I.D.: MW-8
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RM SAMPLE I.D.: MW-8
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 0939 END (2400hr) 0949
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 0955
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) 2" (0.17) 3" (0.38) 4" (0.67) 5" (1.02) 6" (1.50) 8" (2.60) ()

DEPTH TO BOTTOM (feet) = 14.00 CASING VOLUME (gal) = 1.51
 DEPTH TO WATER (feet) = 5.13 CALCULATED PURGE (gal) = 4.52
 WATER COLUMN HEIGHT (feet) = 8.87 ACTUAL PURGE (gal) = 5.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>0943</u>	<u>3</u>	<u>16.4</u>	<u>213ms</u>	<u>7.01</u>	<u>Clear</u>	<u>73.72</u>
	<u>0946</u>	<u>4</u>	<u>17.4</u>	<u>1729ms</u>	<u>6.95</u>	<u>✓</u>	<u>42.92</u>
	<u>0949</u>	<u>5</u>	<u>17.4</u>	<u>1731ms</u>	<u>6.89</u>	<u>✓</u>	<u>31.92</u>

SAMPLE DEPTH TO WATER: 5.29 SAMPLE INFORMATION SAMPLE TURBIDITY: 29.69

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
3 preserved voas; MW-3 -one 1-L HCl-preserved Amber
 ODOR: 0 SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump
 Centrifugal Pump
 Submersible Pump
 Peristaltic Pump
 Other: _____
 Pump Depth: _____

SAMPLING EQUIPMENT

Bladder Pump
 Centrifugal Pump
 Submersible Pump
 Peristaltic Pump
 Other: _____

WELL INTEGRITY: Good LOCK#: Yes

REMARKS: Hand Bailed well.

SIGNATURE: _____ Page ___ of ___

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RB WELL I.D.: MW-9
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RB SAMPLE I.D.: MW-9
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 1121 END (2400hr) 1126
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 1140
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" _____ 3" _____ 4" 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 1410 CASING VOLUME (gal) = 6.42
 DEPTH TO WATER (feet) = 4.41 CALCULATED PURGE (gal) = 19.27
 WATER COLUMN HEIGHT (feet) = 9.59 ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>1125</u>	<u>6</u>	<u>20.1</u>	<u>793</u>	<u>6.65</u>	<u>Clear</u>	<u>31.94</u>
_____	_____	<u>12</u>	_____	_____	_____	_____	_____
_____	_____	<u>18</u>	_____	_____	_____	_____	_____
_____	<u>1126</u>	_____	_____	_____	_____	_____	_____
_____	_____	<u>dry at 710 gal</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 4.50 SAMPLE TURBIDITY: 25.97

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: yes SAMPLE VESSEL / PRESERVATIVE: **3 preserved voas; MW-3 -one 1-L HCl-preserved Amber for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

- Bladder Pump
- Centrifugal Pump
- Submersible Pump
- Peristaltic Pump
- Bailer (Teflon)
- Bailer (PVC)
- Bailer (Stainless Steel)
- Dedicated _____

Other: _____
 Pump Depth: 10'0

SAMPLING EQUIPMENT

- Bladder Pump
- Centrifugal Pump
- Submersible Pump
- Peristaltic Pump
- Bailer (Teflon)
- Bailer (_____ PVC or disposable)
- Bailer (Stainless Steel)
- Dedicated _____

Other: _____

WELL INTEGRITY: Good LOCK#: yes

REMARKS: _____

SIGNATURE: Raymond Yarb

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RM WELL I.D.: MW-10
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RM SAMPLE I.D.: MW-10
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 0841 END (2400hr) 0855
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 0901
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 20.00 CASING VOLUME (gal) = 1.90
 DEPTH TO WATER (feet) = 9.84 CALCULATED PURGE (gal) = 5.69
 WATER COLUMN HEIGHT (feet) = 11.16 ACTUAL PURGE (gal) = 6.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>0845</u>	<u>2</u>	<u>19.0</u>	<u>2.40ms</u>	<u>6.97</u>	<u>cloudy</u>	<u>407.0</u>
	<u>0850</u>	<u>4</u>	<u>19.4</u>	<u>2.50ms</u>	<u>6.96</u>	<u>↓</u>	<u>404.3</u>
	<u>0855</u>	<u>6</u>	<u>19.6</u>	<u>2.51ms</u>	<u>6.95</u>	<u>↓</u>	<u>426.2</u>

SAMPLE DEPTH TO WATER: 9.42 SAMPLE INFORMATION SAMPLE TURBIDITY: 431.7

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
3 preserved voas; MW-3 -one 1-L HCl-preserved Amber
 ODOR: 0 SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

____ Bladder Pump _____ Bailer (Teflon)
 ____ Centrifugal Pump Bailer (PVC)
 ____ Submersible Pump _____ Bailer (Stainless Steel)
 ____ Peristaltic Pump _____ Dedicated _____
 Other: _____
 Pump Depth: _____

SAMPLING EQUIPMENT

____ Bladder Pump _____ Bailer (Teflon)
 ____ Centrifugal Pump Bailer (_____ PVC or disposable)
 ____ Submersible Pump _____ Bailer (Stainless Steel)
 ____ Peristaltic Pump _____ Dedicated _____
 Other: _____

WELL INTEGRITY: good LOCK#: yes
 REMARKS: Hand Bailed Well.

SIGNATURE: [Signature]

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: See Work Order PURGED BY: RM WELL I.D.: MW-11
 CLIENT NAME: 76 (Former BP) #11126 SAMPLED BY: RM SAMPLE I.D.: MW-11
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 11-21-07 START (2400hr) 0815 END (2400hr) 0824
 DATE SAMPLED 11-21-07 SAMPLE TIME (2400hr) 0830
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 17.24 CASING VOLUME (gal) = 1.12
 DEPTH TO WATER (feet) = 10.64 CALCULATED PURGE (gal) = 3.37
 WATER COLUMN HEIGHT (feet) = 6.60 ACTUAL PURGE (gal) = 4.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-21-07</u>	<u>0818</u>	<u>2</u>	<u>18.1</u>	<u>817</u>	<u>7.74</u>	<u>Clear</u>	<u>219.0</u>
	<u>0821</u>	<u>3</u>	<u>18.6</u>	<u>799</u>	<u>7.42</u>	<u>✓</u>	<u>231.7</u>
	<u>0824</u>	<u>4</u>	<u>18.9</u>	<u>796</u>	<u>7.39</u>	<u>✓</u>	<u>246.8</u>

SAMPLE DEPTH TO WATER: 11.04 SAMPLE INFORMATION SAMPLE TURBIDITY: 251.3

80% RECHARGE: YES ___ NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: 0 **3 preserved voas; MW-3 -one 1-L HCl-preserved Amber**
 SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

___ Bladder Pump
 ___ Centrifugal Pump
 ___ Submersible Pump
 ___ Peristaltic Pump
 Other: _____
 Pump Depth: _____

SAMPLING EQUIPMENT

___ Bladder Pump
 ___ Centrifugal Pump
 ___ Submersible Pump
 ___ Peristaltic Pump
 Other: _____

WELL INTEGRITY: good LOCK#: yes
 REMARKS: Hand Bailer Well

SIGNATURE: _____ Page ___ of ___

REMEDIATION MANAGEMENT

HOT WORK SAFETY PROCEDURES



It is imperative that all workers understand that no task is so important or so urgent that it cannot be done safely.

SEQUENCE & SAFE METHOD OF WORK

THE CONTRACTOR MUST COMPLETE THE FOLLOWING ITEMS AND REVIEW WITH WORKERS BEFORE HOT WORK STARTS

- Hot Work Permit requirements must be in place
- Job specific emergency procedures and notifications must be developed, reviewed with workers, and readily available
- Ensure the work area is free of non-essential personnel, equipment, combustible materials and vehicles
- All appropriate personal protective equipment (PPE) must be in use by workers (see Appendix B)
- A Fire Watch, with appropriate authority and responsibility, must be provided with the correct fire extinguishing equipment and combustible gas testing meter (see Appendix A – Duties of the Fire Watch)
- Blinding, isolation, and purging of equipment (with appropriate Lock-outs) must have been completed
- Ensure that at least two escape routes with unobstructed access are provided
- Before signing the permit, the person who writes the Hot Work Permit is responsible for determining if acceptable working conditions exist and verifying that permit is complete, including air testing and that specified equipment is in place (see Appendix A – Duties of Permit Writer)
- The Fire Watch must assist hot work activities by providing fire protection, air monitoring, and being constantly aware for fire hazards (see Appendix A – Duties of the Fire Watch)
- Upon completion of the hot work, the fire watch takes appropriate action to verify that no fire hazards exist before departing the area
- There shall be no work with open flames conducted at a BP site without prior verbal authorization from a BP Area Maintenance Manager or Facilities & Engineering Manager. Open flame work within the hazardous zone at former retail and non-retail sites will require EBM authorization.

Purpose and scope

The purpose of this procedure is to assure an *Incident and Injury Free Workplace* where personnel perform hot work at BP sites. BP requires all employees and contractors performing work on behalf of BP to follow these requirements. These safety requirements are considered as a minimum and are mandatory.

Additional measures may be required by government regulations or by BP or by government regulations such as applicable OSHA standard (29 CFR 1926.352) which may be obtained from the OSHA web site at <http://www.osha.gov/index.html>. Below is a summary of BP's safety requirements. It is the responsibility of the parties conducting the work to understand and follow all required safety regulations and practices.

DEFINITIONS

Hot Work - any work that will generate sufficient heat or sparks to ignite combustible and/or flammable materials. Combustible materials are substances that will freely support combustion once ignited. The following activities are examples of hot work; however, there may be more that are applicable at specific locations: Welding, Drilling, Flame Cutting, Grinding, Portable Heaters, and Electrical Tools/Equipment (that are not explosion proof or intrinsically safe), Sandblasting operations (static charges), Operation of combustion engines (lawn mowers, vehicles, etc.)

Permitted Area – Any area where hot work is to take place and combustible or flammable vapors are or could exist even in an abnormal condition. Examples include: gasoline dispensers, tank vents, underground storage tank manways, fills or other access points, above ground storage tanks, excavations, or any equipment that has the potential to emit combustible or flammable vapors.

RESPONSIBILITY

The contractor or work supervisor is responsible to ensure that all hot work is authorized and permitted prior to starting work.

REQUIRED SAFETY PRACTICES

There shall be no work with open flames conducted at a BP site without express written permission from a BP Remediation Management Site EBM or Project Manager. A Hot Work Permit (See Appendix C) must be issued before hot work is performed within the hazardous zone (unless other site definition exists, this is 35 feet from the source or from an area where combustible or flammable vapors are or could exist, even in an abnormal condition).

INCIDENT REPORTING

All incidents involving personal injury or property damage, or which had the potential to cause significant injury or damage, must be immediately reported to BP site management per the RM Incident Notification Guidance Manual. All information and assistance must be made available upon request to assist with an incident investigation, if necessary.

**APPENDIX A - EMPLOYEE TRAINING; ASSIGNED DUTIES OF THE HOT WORK PERMIT ISSUER;
ASSIGNED DUTIES OF THE FIRE WATCH**

EMPLOYEE TRAINING

- Employees must be trained so they know the relevant aspects of safety regarding hot work. Training should include:
 - Types and locations of potential fire hazards at the facility and specifically near the work area.
 - Work practices and techniques to control hot work exposures.
 - Atmospheric testing procedures.
 - Use of fire extinguishers, atmosphere monitoring equipment, and ventilation equipment.
- Employees should be trained prior to conducting their first hot work, when assigned duties change, or when the employee's supervisor believes it to be appropriate.

ASSIGNED DUTIES OF THE HOT WORK PERMIT ISSUER

The person who writes the Hot Work Permit is responsible for determining if acceptable working conditions exist. The permit writer is responsible for the following duties:

- Must know the hazards of hot work.
- Must verify by checking that the permit is complete, including testing and specified equipment in place, before endorsing the permit.
- Terminate the permit when the work is complete, or when conditions not allowed under the permit arise.
- Determine at periodic intervals that acceptable hot work conditions are maintained.

ASSIGNED DUTIES OF FIRE WATCH

- The contractor or work supervisor is responsible for assigning a fire watch when hot work is within the hazardous zone (unless other site definition exists, this is 35 feet from source of a potential combustible or flammable vapor source). The fire watch must be trained in the proper use of a fire extinguisher. The duties of the fire watch include:
 - Understanding the location and nature of the hot work
 - Survey the area to be sure the necessary fire protection equipment is in place and ready for use
 - Survey the area for combustible or flammable materials
 - Remain in the area while the work is being performed and remain in constant communication range with person(s) doing the hot work
 - Never leave the work area for any reason without a replacement
 - When walls are involved in hot work, each side requires a fire watch
- The fire watch must be in the ready position at all times when hot work is being performed. The ready position consists of being attentive and having the fire extinguisher in position prior to the start of work. The fire extinguisher must be nearby while the hot work is being performed. The fire extinguisher must be returned to its designated location when the hot work is complete. The fire extinguisher must not be discharged unless a fire actually occurs.
- The fire watch must periodically survey the area with a direct-reading combustible gas meter to ensure the work area is suitable for hot work. ~~The work must stop immediately if the combustible gas meter registers 10% or greater of the lower explosive level (L.E.L.) in the atmosphere.~~
- The fire watch is authorized to stop the hot work whenever work conditions become unsafe or if the work description on the permit is exceeded. The supervisor must be notified for any "stop work" situation.
- The fire watch shall be equipped with the personal protective equipment needed to perform the work safely, such as properly shaded goggles for working with welders.

APPENDIX B – JOB HAZARD ANALYSIS (JHA) AND PERSONAL PROTECTIVE EQUIPMENT (PPE)

JOB HAZARD ANALYSIS		
TASK	HAZARDS	CONTROLS
Hot Work	<ul style="list-style-type: none"> • Fire/Explosion • Explosive vapors/gas • Temperature variables • Electrical hazards 	<ol style="list-style-type: none"> 1. Test work area oxygen and LEL with meter. 2. Assure all appropriate equipment isolation, shutdowns, LOTO, purging and barricading have been conducted to reduce flammability risk and atmospheric hazards. This includes isolation of workspace from the general public. 3. Provide necessary equipment including PPE. 4. Monitor work area continuously with air tester and document readings on permit. 5. Designate specific persons to provide fire watch. 6. Complete Hot Work Permit. 7. Perform hot work for as long as permit conditions are met. 8. Reviews permit procedure if any problems arise. 9. All work stops if conditions or scope of works changes. 10. Close out permit when work has been completed

PERSONAL PROTECTIVE EQUIPMENT (PPE)

When a hazardous situation is recognized, steps should be immediately taken to eliminate the hazard either by engineering revision or by changing work methods. If it is not practical to eliminate the hazard, then personal protective equipment (PPE) must be used.

PPE Requirements

1. **High Visibility Clothing:** Always
2. **Safety Glasses:** Always
3. **Goggles, face shield:** When fluid splash may exist or hammering, drilling, or where dust and loose material may blow
4. **Welding goggles:** When performing welding or while required to work in close proximity to a welding operation
5. **Head protection (hard hats):** Always
6. **Gloves (chemical resistant):** When working with gasoline or other solvents or corrosive chemicals
7. **Gloves (leather or cotton):** When working with sharp or abrasive materials
8. **Long pants and long-sleeve work shirt:** Always
9. **Fire Resistant Clothing:** For working where there is a high risk of a flash fire
10. **Steel-toe Boots/Shoes (leather):** Always

APPENDIX C – HOT WORK – PERMIT TO WORK

Facility 11126	Purpose of Entry/Nature of Work (ex. Tank cleaning, inspection, welding, cutting abrasive blasting, etc.) FixewaterH
Specific Equipment/Area covered by permit Dispenser Island	Contractor Name Secor
Hazards of the Space (ex. Combustible gas, confined space, power lines, water, ice, open systems, energy sources, etc.) Combustible Gas	

CHECK	Y/N/NA	DETAILS BELOW	CHECK	Y/N/NA	DETAILS BELOW
O. Has a Safety PSR (Process Safety Review) been done?	NA		4. Earthing and bonding correctly applied?	NA	
A. Have a plant and equipment been thoroughly:	NA		5. Work to be kept wet with water?	NA	
1. Depressurized	NA		6. Are spark/flash screens/barriers in place?	NA	
2. Drained?	NA		7. Hot work site isolated/roped off?	Y	
3. Isolated - By Blanking	NA		8. Has product movement in the vicinity been stopped?	NA	
- By Disconnection	NA		9. Are PRVs vented to safe areas?	NA	
4. Steamed	NA		10. Fire protection checked/in place? List	Y	
5. Water Flushed	NA		11. Is a fire watch/fire brigade required and organized?	Y	
6. Ventilated - Natural	NA		12. Air Test:		
- Mechanical	NA		Was instrument calibrated prior to day's use? Yes		
			Instrument type & serial # QRAE		
			Calibration results: %LEL 0 O ₂ 20.9		
B. 1. Are sewers, pits & drains and contaminated ground Within 15m of worksite sealed?	NA		C. Is access and exit provided?	Y	
2. Combustible material removed & leaks controlled?	NA		D. "Lead" precautions necessary/taken?	NA	
3. Equipment, e.g. Welder compressor, correctly sited?	NA		E. Has electrical equipment been isolated and tagged?	NA	
			F. Has wind direction been considered?	NA	

Gas Tests Required:	Time	Oxygen%	Combustible (%LEL)	CO (ppm)	Other (list, ex. Lead)
Retest & assess hazards when conditions change and upon return to work after breaks and lunch					
Safety Limits		19.5-23.5	10	25	
RM	1120	20.9	0	3	Initial Reading MW-9
RM	1130	20.9	0	14	
Monitoring Results Tests Performed by:					

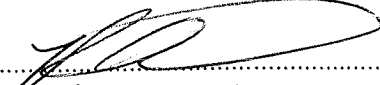
PERSONAL PROTECTION REQUIRED (STATE YES OR NO)

EYES	EARS	HANDS	FEET	BREATHING	BODY - OTHER
<input type="checkbox"/> Goggles	<input type="checkbox"/> Ear Protection	<input type="checkbox"/> PVC Gloves	<input checked="" type="checkbox"/> Safety Shoes	<input type="checkbox"/> Canister Mask	<input type="checkbox"/> Safety Harness
<input type="checkbox"/> Shield		<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Rubber Safety Shoes	<input type="checkbox"/> Air Supplied Respirator	<input type="checkbox"/> PVC Suit
<input checked="" type="checkbox"/> Safety Glasses		<input type="checkbox"/> Gauntlets			<input checked="" type="checkbox"/> Reflective Vest

SPECIAL INSTRUCTIONS & WORK INSTRUCTIONS

AUTHORISATION TO CARRY OUT WORK

I CERTIFY THAT THE ABOVE EQUIPMENT/SITE IS SAFE TO CARRY OUT HOT WORK BY PERSONS SUBJECT TO THE SPECIFIED REQUIREMENTS

ISSUED BY:  PERMIT VALID FROM DATE 11.21.07 07.00 AM/PM
COUNTERSIGNED: Raymond Hoche TO DATE 11.21.07 14.00 AM/PM

I UNDERSTAND THE NATURE OF THE WORK AND CERTIFY THAT THE ABOVE CONDITIONS WILL BE OBSERVED AT ALL TIMES

RECEIVED BY - CONTRACTOR/EMPLOYEE DATE/...../.....

WORK COMPLETED		WORK HAND BACK	
Time <u>14.00</u>	Contractor/Employee	Time	Received by Site Manager
Date <u>11/21/07</u>	<u>Raymond Hoche</u>	Date

DISPLAY OF PERMIT

- ORIGINAL COPY – SHALL BE CLEARLY DISPLAYED AT THE WORK SITE ALONG WITH THE ATW FORM WITH CONTRACTOR/EMPLOYEE PERFORMING WORK.
- SITE MANAGERS COPY TO BE GIVEN BY HAND TO THE SITE MANAGER.
- ISSUERS COPY TO BE KEPT BY THE PERSON ISSUING THE PERMIT.
- UPON COMPLETION OF WORK AND ACCEPTANCE, THE CONTRACTOR/EMPLOYEE SHALL SIGN AND HAND BACK PERMIT TO THE SITE MANAGER FOR CLOSEOUT. COPY OF THE PERMIT TO BE KEPT WITH THE SITE HASP.

PERMIT ISSUE

Permits are to be issued by a person to whom the authority has been delegated. They may be issued by non-plant staff with delegated authority in which case they shall be countersigned by Site Manager.

PERMIT VALIDITY

If work period exceeds one shift the permit must be re-endorsed below at each shift change, and at least daily, and any change of work control by either issuing Officer or the Recipient prior to the commencement of work.

NOTE – ENSURE GAS-FREE CERTIFICATE IS RE-ENDORSED

RE-ENDORSED BY _____ DATE/...../..... Signature of Person Authorized to Re-endorse Valid for(date) Recipient	RE-ENDORSED BY _____ DATE/...../..... Signature of Person Authorized to Re-endorse Valid for(date) Recipient
---	---

RE-ENDORSED BY _____ DATE/...../..... Signature of Person Authorized to Re-endorse Valid for(date) Recipient	RE-ENDORSED BY _____ DATE/...../..... Signature of Person Authorized to Re-endorse Valid for(date) Recipient
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RE-ENDORSED BY _____ DATE/...../..... Signature of Person Authorized to Re-endorse Valid for(date) Recipient	RE-ENDORSED BY _____ DATE/...../..... Signature of Person Authorized to Re-endorse Valid for(date) Recipient
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JOURNEY HAZARD ASSESSMENT CARD

STOP! THINK! GO!

Name Raymond Goere Date 11-21-07

STOP

Do I need to make this journey? Yes No

STOP

Where am I traveling? How long will I be driving? And do I have an ETA with a contact person and have communicated area hazards and safest mode of transport?

THINK

How can I ensure that I have a safe journey?

THINK

Am I well rested and alert for the journey? Yes No

THINK

Have I done a vehicle walk around and ensured that the vehicle is safe and ready for travel? Yes No

ELEMENTS OF THE DRIVING STANDARD

- Has vehicle been inspected? Yes No
- Will passengers be transported? Yes No
- Has cargo been secured? Yes No
- Driver's License is current? Yes No
- Appropriately rested and alert? Yes No
- Journey risks have been identified? Yes No
- Seatbelts are in working order? Yes No
- Medically fit for driving? Yes No

HAVE A SAFE TRIP!

DRIVING IS RISKY BUSINESS!

REMEDIATION MANAGEMENT - AUTHORIZATION TO WORK

PRE-TASK HAZARD REVIEW

TASK	EQUIPMENT
1. QMS	1. Sample truck
2.	2. Generator
3.	3. Grounding pump
4.	4. Hand tools
5.	5.
6.	6.

Chemical / Products / Material

1. <input type="checkbox"/> Hydrogen Sulfide	2. <input checked="" type="checkbox"/> Benzene	3. <input checked="" type="checkbox"/> Diesel	4. <input type="checkbox"/> Hydrocarbon	5. <input type="checkbox"/> Acid	6. <input type="checkbox"/> Lead
7. <input checked="" type="checkbox"/> Carbon Monoxide	8. <input type="checkbox"/> Asbestos	9. <input type="checkbox"/> Caustic	10. <input checked="" type="checkbox"/> Gasoline	11. <input type="checkbox"/> Heavy Metals	
12. <input type="checkbox"/> NORMS	13. <input type="checkbox"/> Other:				

Hazardous Energy

19. <input type="checkbox"/> Radiation	20. <input checked="" type="checkbox"/> Electric	21. <input type="checkbox"/> Pneumatic	22. <input type="checkbox"/> Thermal-Steam
23. <input type="checkbox"/> Hydraulic	24. <input type="checkbox"/> Pressure	25. <input checked="" type="checkbox"/> Mechanical	26. <input checked="" type="checkbox"/> Fluids & Gases
27. <input checked="" type="checkbox"/> Gravitational	28. <input type="checkbox"/> Other:		

Other Potential Hazards

34. <input checked="" type="checkbox"/> Walking / Working Surfaces	35. <input checked="" type="checkbox"/> Traffic	36. <input type="checkbox"/> Working at Heights	37. <input checked="" type="checkbox"/> Pinch Points
38. <input checked="" type="checkbox"/> Weather	39. <input checked="" type="checkbox"/> Noise	40. <input type="checkbox"/> Grinding	41. <input type="checkbox"/> Heavy equipment
42. <input checked="" type="checkbox"/> Sharp Edges	43. <input checked="" type="checkbox"/> Hot Work	44. <input checked="" type="checkbox"/> Security	45. <input type="checkbox"/> Congested Area
46. <input type="checkbox"/> Overhead Work	47. <input checked="" type="checkbox"/> Body Position	48. <input checked="" type="checkbox"/> Static Posture	49. <input checked="" type="checkbox"/> Wind
50. <input type="checkbox"/> Rotating Equipment	51. <input checked="" type="checkbox"/> Lifting	52. <input checked="" type="checkbox"/> Housekeeping	53. <input checked="" type="checkbox"/> Spills
54. <input type="checkbox"/> Underground Utility	55. <input type="checkbox"/> Slopes and Terrain	56. <input type="checkbox"/> Confined Space	57. <input type="checkbox"/> Vibration
58. <input type="checkbox"/> Ground Disturbance	59. <input type="checkbox"/> Rigging	60. <input checked="" type="checkbox"/> Vehicle Safety - Driving	61. <input checked="" type="checkbox"/> Repetitive Motion
62. <input type="checkbox"/> Container/Drum Labels	63. <input type="checkbox"/> Waste	64. <input checked="" type="checkbox"/> Heat/Cold Stress	65. <input checked="" type="checkbox"/> Hand & Power Tools
66. <input checked="" type="checkbox"/> Fitness to Work	67. <input type="checkbox"/> Open Pipe	68. <input type="checkbox"/> Boom Swing	69. <input type="checkbox"/> Lighting
70. <input type="checkbox"/> Exposure to poisonous plants / animals / bugs	71. <input type="checkbox"/> Overhead Electrical	72. <input type="checkbox"/> Auger/Drill Stem	73. <input type="checkbox"/> Other:

Required Safety Precautions

74. <input checked="" type="checkbox"/> Safety Glasses	80. <input type="checkbox"/> Goggles	81. <input type="checkbox"/> Face Shield	82. <input type="checkbox"/> Ear Plugs
83. <input type="checkbox"/> Hard Hat	85. <input type="checkbox"/> Escape Pak	86. <input type="checkbox"/> Safety Vest	87. <input type="checkbox"/> Ear Muffs
88. <input type="checkbox"/> Respirator:	89. <input type="checkbox"/> FRC	90. <input type="checkbox"/> Supplied Air	91. <input type="checkbox"/> Topical Creams / Repellents
92. <input type="checkbox"/> Fall Protection	93. <input type="checkbox"/> Fire Watch	94. <input type="checkbox"/> Drip Pans	95. <input type="checkbox"/> Plastic Sheeting
96. <input type="checkbox"/> Vac Truck	97. <input type="checkbox"/> Barricade	98. <input type="checkbox"/> Fire Blanket	99. <input type="checkbox"/> Life Lines
100. <input type="checkbox"/> Upwind Areas Checked	101. <input type="checkbox"/> Warning Signs	102. <input type="checkbox"/> Flag Off Area	103. <input type="checkbox"/> Fire Extinguisher at Jobsite
104. <input type="checkbox"/> Communication Method	105. <input type="checkbox"/> Sampling Prohibited	106. <input type="checkbox"/> Seal Manholes, Sewers, and Catch Basins	107. <input type="checkbox"/> Wet Down Area
108. <input type="checkbox"/> Welding Shields	109. <input type="checkbox"/> Continuous Monitoring	110. <input type="checkbox"/> Active Site Hazard Communication	111. <input type="checkbox"/> Ladder Tie Off
112. <input type="checkbox"/> Tag Lines	113. <input type="checkbox"/> Fence Off Area	114. <input type="checkbox"/> No Cell Phone	115. <input type="checkbox"/> No Smoking
116. <input type="checkbox"/> Other:	117. <input type="checkbox"/> Other:	118. <input type="checkbox"/> Other:	

REQUIRED PROCEDURES

<input type="checkbox"/> Drilling	<input type="checkbox"/> MOC	<input type="checkbox"/> Traffic Control	<input type="checkbox"/> LO/TO/Blinding
<input type="checkbox"/> Hoist/Lifting	<input checked="" type="checkbox"/> Journey Hazard Assessment	<input type="checkbox"/> Ground Disturbance	

REQUIRED PERMITS

<input type="checkbox"/> Hot Work	<input type="checkbox"/> Trenching/Excavation	<input type="checkbox"/> Confined Space	<input type="checkbox"/> Working from Heights	<input type="checkbox"/> None
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Contractor(s) / Employee(s) Signatures: I have reviewed and understand the conditions of this permit, and its attachments. I will report hazardous conditions or acts identified on this job site to my supervisor and / or BP representative so they can be corrected as necessary.		1.	2.
5.	6.	7.	8.
9.	10.	11.	12.

Onsite Manager: (Print Name) <u>Raymond Goetz</u>	Date: <u>11-21-07</u>	Location of Site Work:
Site <u>11176</u>	Date/Time Issued: <u>6:00</u> am/pm	Date/Time Expires: am/pm
<input checked="" type="checkbox"/> Is HASP onsite?	<input checked="" type="checkbox"/> Is ERP onsite?	<input checked="" type="checkbox"/> Is JSA onsite?

Authorization Signature: _____
 Exceptions/Comments: _____

ATTACHMENT C
CERTIFIED LABORATORY ANALYTICAL REPORTS
AND CHAIN-OF-CUSTODY DOCUMENTATION

Quarterly Groundwater Monitoring Progress Report – Fourth Quarter 2007
76 (Former BP) Service Station No.11126
1700 Powell Street
Emeryville, California

ANALYTICAL REPORT

Job Number: 720-11894-1

Job Description: CP 11126

For:

SECOR International, Inc.
3017 Kilgore Road
Suite 100
Rancho Cordova, CA 95670
Attention: Brad Shelton



Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
12/06/2007

cc: BPCPN Cal

Job Narrative
720-J11894-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 29284 were outside control limits. The associated laboratory control standard (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

GC Semi VOA

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: SECOR International, Inc.

Job Number: 720-11894-1

Lab Sample ID	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-11894-1	MW-1				
Benzene		67	2.0	ug/L	8260B
Ethylbenzene		3.5	2.0	ug/L	8260B
MTBE		200	2.0	ug/L	8260B
TAME		2.7	2.0	ug/L	8260B
Toluene		6.2	2.0	ug/L	8260B
Xylenes, Total		12	4.0	ug/L	8260B
TBA		1300	20	ug/L	8260B
Gasoline Range Organics (GRO)-C6-C12		1800	200	ug/L	8260B
720-11894-2	MW-2				
Benzene		4500	50	ug/L	8260B
Ethylbenzene		1600	50	ug/L	8260B
MTBE		5200	50	ug/L	8260B
TAME		160	50	ug/L	8260B
Toluene		220	50	ug/L	8260B
Xylenes, Total		2800	100	ug/L	8260B
TBA		5000	500	ug/L	8260B
Gasoline Range Organics (GRO)-C6-C12		27000	5000	ug/L	8260B
720-11894-3	MW-3				
MTBE		3.4	2.5	ug/L	8260B
TBA		2600	25	ug/L	8260B
Diesel Range Organics [C9-C24]		1600	50	ug/L	8015B
720-11894-4	MW-4				
TBA		38000	250	ug/L	8260B
720-11894-5	MW-5				
MTBE		11	2.5	ug/L	8260B
TBA		310	25	ug/L	8260B
Gasoline Range Organics (GRO)-C6-C12		4700	250	ug/L	8260B
720-11894-6	MW-6				
MTBE		8.4	0.50	ug/L	8260B
TAME		1.0	0.50	ug/L	8260B
TBA		210	5.0	ug/L	8260B

EXECUTIVE SUMMARY - Detections

Client: SECOR International, Inc.

Job Number: 720-11894-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-11894-7	MW-7				
MTBE		8.4	0.50	ug/L	8260B
TAME		0.87	0.50	ug/L	8260B
TBA		1500	25	ug/L	8260B
Gasoline Range Organics (GRO)-C6-C12		55	50	ug/L	8260B
720-11894-8	MW-8				
MTBE		8.7	0.50	ug/L	8260B
TBA		360	5.0	ug/L	8260B
Gasoline Range Organics (GRO)-C6-C12		350	50	ug/L	8260B
720-11894-9	MW-9				
Benzene		790	13	ug/L	8260B
Ethylbenzene		97	13	ug/L	8260B
MTBE		2000	13	ug/L	8260B
TAME		42	13	ug/L	8260B
Xylenes, Total		34	25	ug/L	8260B
TBA		3500	130	ug/L	8260B
Gasoline Range Organics (GRO)-C6-C12		4600	1300	ug/L	8260B
720-11894-10	MW-10				
MTBE		2.2	0.50	ug/L	8260B

METHOD SUMMARY

Client: SECOR International, Inc.

Job Number: 720-11894-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260B	
Purge-and-Trap	TAL SF		SW846 5030B
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL SF	SW846 8015B	
Separatory Funnel Liquid-Liquid Extraction	TAL SF		SW846 3510C
HEM and SGT-HEM by Extraction and Gravimetry	TAL SF	1664A 1664A	
HEM and SGT-HEM by Extraction and	TAL SF		1664A 1664A

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

1664A = EPA-821-98-002

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: SECOR International, Inc.

Job Number: 720-11894-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-11894-1	MW-1	Water	11/21/2007 1030	11/21/2007 1325
720-11894-2	MW-2	Water	11/21/2007 1100	11/21/2007 1325
720-11894-3	MW-3	Water	11/21/2007 0840	11/21/2007 1325
720-11894-4	MW-4	Water	11/21/2007 1000	11/21/2007 1325
720-11894-5	MW-5	Water	11/21/2007 0920	11/21/2007 1325
720-11894-6	MW-6	Water	11/21/2007 1035	11/21/2007 1325
720-11894-7	MW-7	Water	11/21/2007 1103	11/21/2007 1325
720-11894-8	MW-8	Water	11/21/2007 0955	11/21/2007 1325
720-11894-9	MW-9	Water	11/21/2007 1140	11/21/2007 1325
720-11894-10	MW-10	Water	11/21/2007 0901	11/21/2007 1325
720-11894-11	MW-11	Water	11/21/2007 0830	11/21/2007 1325
720-11894-12TB	QCTB	Water	11/21/2007 0000	11/21/2007 1325

Analytical Data

Client: SECOR International, Inc.

Job Number: 720-11894-1

Client Sample ID: MW-7

Lab Sample ID: 720-11894-7

Date Sampled: 11/21/2007 1103

Client Matrix: Water

Date Received: 11/21/2007 1325

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 720-29284	Instrument ID: Varian 3900C
Preparation:	5030B		Lab File ID: c:\saturnws\data\200712\12
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	12/05/2007 1426		Final Weight/Volume: 40 mL
Date Prepared:	12/05/2007 1426		

Analyte	Result (ug/L)	Qualifier	RL
1,2-Dichloroethane	ND		0.50
Benzene	ND		0.50
Ethanol	ND		250
Ethylbenzene	ND		0.50
MTBE	8.4		0.50
TAME	0.87		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	55		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	107		77 - 121
1,2-Dichloroethane-d4 (Surr)	99		73 - 130

Analytical Data

Client: SECOR International, Inc.

Job Number: 720-11894-1

Client Sample ID: MW-7

Lab Sample ID: 720-11894-7

Date Sampled: 11/21/2007 1103

Client Matrix: Water

Date Received: 11/21/2007 1325

8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-29284

Instrument ID: Varian 3900C

Preparation: 5030B

Lab File ID: c:\saturnws\data\200712\12

Dilution: 5.0

Initial Weight/Volume: 40 mL

Date Analyzed: 12/05/2007 1639

Final Weight/Volume: 40 mL

Date Prepared: 12/05/2007 1639

Analyte	Result (ug/L)	Qualifier	RL
TBA	1500		25

Analytical Data

Client: SECOR International, Inc.

Job Number: 720-11894-1

Client Sample ID: QCTB

Lab Sample ID: 720-11894-12TB

Date Sampled: 11/21/2007 0000

Client Matrix: Water

Date Received: 11/21/2007 1325

8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-29284

Instrument ID: Varian 3900C

Preparation: 5030B

Lab File ID: c:\saturnws\data\200712\12

Dilution: 1.0

Initial Weight/Volume: 40 mL

Date Analyzed: 12/05/2007 1145

Final Weight/Volume: 40 mL

Date Prepared: 12/05/2007 1145

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
MTBE	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C6-C12	ND		50

Surrogate	%Rec	Acceptance Limits
Toluene-d8 (Surr)	105	77 - 121
1,2-Dichloroethane-d4 (Surr)	100	73 - 130

Analytical Data

Client: SECOR International, Inc.

Job Number: 720-11894-1

Client Sample ID: MW-3

Lab Sample ID: 720-11894-3

Date Sampled: 11/21/2007 0840

Client Matrix: Water

Date Received: 11/21/2007 1325

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method:	8015B	Analysis Batch: 720-29036	Instrument ID: Varian DRO4
Preparation:	3510C	Prep Batch: 720-28892	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 250 mL
Date Analyzed:	11/26/2007 1446		Final Weight/Volume: 1 mL
Date Prepared:	11/23/2007 1119		Injection Volume:
			Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C9-C24]	1600		50
Surrogate	%Rec		Acceptance Limits
p-Terphenyl	97		50 - 150

Analytical Data

Client: SECOR International, Inc.

Job Number: 720-11894-1

General Chemistry

Client Sample ID: MW-3

Lab Sample ID: 720-11894-3

Date Sampled: 11/21/2007 0840

Client Matrix: Water

Date Received: 11/21/2007 1325

Analyte	Result	Qual	Units	RL	Dil	Method
HEM (Oil & Grease)	ND		mg/L	2.0	1.0	1664A
	Anly Batch: 720-28933	Date Analyzed	11/26/2007	1241		
	Prep Batch: 720-28932	Date Prepared:	11/26/2007	1224		

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
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Quality Control Results

Client: SECOR International, Inc.

Job Number: 720-11894-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-29284					
LCS 720-29284/5	Lab Control Spike	T	Water	8260B	
LCSD 720-29284/2	Lab Control Spike Duplicate	T	Water	8260B	
MB 720-29284/6	Method Blank	T	Water	8260B	
720-11894-4	MW-4	T	Water	8260B	
720-11894-5	MW-5	T	Water	8260B	
720-11894-6	MW-6	T	Water	8260B	
720-11894-7	MW-7	T	Water	8260B	
720-11894-9	MW-9	T	Water	8260B	
720-11894-10	MW-10	T	Water	8260B	
720-11894-11	MW-11	T	Water	8260B	
720-11894-12TB	QCTB	T	Water	8260B	
Analysis Batch:720-29292					
LCS 720-29292/2	Lab Control Spike	T	Water	8260B	
LCSD 720-29292/1	Lab Control Spike Duplicate	T	Water	8260B	
MB 720-29292/3	Method Blank	T	Water	8260B	
720-11894-1	MW-1	T	Water	8260B	
720-11894-2	MW-2	T	Water	8260B	
720-11894-3	MW-3	T	Water	8260B	
720-11894-8	MW-8	T	Water	8260B	
Report Basis					
T = Total					
GC Semi VOA					
Prep Batch: 720-28892					
LCS 720-28892/2-A	Lab Control Spike	T	Water	3510C	
LCSD 720-28892/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 720-28892/1-A	Method Blank	T	Water	3510C	
720-11894-3	MW-3	T	Water	3510C	
Analysis Batch:720-29036					
LCS 720-28892/2-A	Lab Control Spike	T	Water	8015B	720-28892
LCSD 720-28892/3-A	Lab Control Spike Duplicate	T	Water	8015B	720-28892
MB 720-28892/1-A	Method Blank	T	Water	8015B	720-28892
720-11894-3	MW-3	T	Water	8015B	720-28892

Report Basis

T = Total

Quality Control Results

Client: SECOR International, Inc.

Job Number: 720-11894-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 720-28932					
LCS 720-28932/2-A	Lab Control Spike	T	Water	1664A	
LCSD 720-28932/3-A	Lab Control Spike Duplicate	T	Water	1664A	
MB 720-28932/1-A	Method Blank	T	Water	1664A	
720-11894-3	MW-3	T	Water	1664A	
Analysis Batch:720-28933					
LCS 720-28932/2-A	Lab Control Spike	T	Water	1664A	720-28932
LCSD 720-28932/3-A	Lab Control Spike Duplicate	T	Water	1664A	720-28932
MB 720-28932/1-A	Method Blank	T	Water	1664A	720-28932
720-11894-3	MW-3	T	Water	1664A	720-28932

Report Basis

T = Total

Quality Control Results

Client: SECOR International, Inc.

Job Number: 720-11894-1

Method Blank - Batch: 720-29284

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-29284/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/05/2007 1111
Date Prepared: 12/05/2007 1111

Analysis Batch: 720-29284
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: c:\saturnws\data\200712\112
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
1,2-Dichloroethane	ND		0.50
Benzene	ND		0.50
Ethanol	ND		250
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8 (Surr)	104	77 - 121	
1,2-Dichloroethane-d4 (Surr)	91	73 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: SECOR International, Inc.

Job Number: 720-11894-1

**Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 720-29284**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-29284/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/05/2007 0942
Date Prepared: 12/05/2007 0942

Analysis Batch: 720-29284
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: c:\satumws\data\200712\11:
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-29284/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/05/2007 1009
Date Prepared: 12/05/2007 1009

Analysis Batch: 720-29284
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: c:\satumws\data\200712\12C
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	92	89	69 - 129	4	20		
MTBE	100	95	65 - 165	5	20		
Toluene	102	101	70 - 130	1	20		
Gasoline Range Organics (GRO)-C6-C12	64	65	52 - 105	2	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8 (Surr)	107		111		77 - 121		
1,2-Dichloroethane-d4 (Surr)	90		76		73 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: SECOR International, Inc.

Job Number: 720-11894-1

Method Blank - Batch: 720-29292

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29292/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/05/2007 1411
Date Prepared: 12/05/2007 1411

Analysis Batch: 720-29292
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900A
Lab File ID: c:\saturnws\data\200712\12
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
1,2-Dichloroethane	ND		0.50
Benzene	ND		0.50
Ethanol	ND		250
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	% Rec		Acceptance Limits
Toluene-d8 (Surr)	96		77 - 121
1,2-Dichloroethane-d4 (Surr)	93		73 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: SECOR International, Inc.

Job Number: 720-11894-1

**Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 720-29292**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-29292/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/05/2007 1219
Date Prepared: 12/05/2007 1219

Analysis Batch: 720-29292
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900A
Lab File ID: c:\satumws\data\200712\121
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-29292/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/05/2007 1241
Date Prepared: 12/05/2007 1241

Analysis Batch: 720-29292
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900A
Lab File ID: c:\satumws\data\200712\124
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	79	82	69 - 129	4	20		
MTBE	90	90	65 - 165	1	20		
Toluene	85	89	70 - 130	5	20		
Gasoline Range Organics (GRO)-C6-C12	61	62	52 - 105	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8 (Surr)	97		98		77 - 121		
1,2-Dichloroethane-d4 (Surr)	90		103		73 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: SECOR International, Inc.

Job Number: 720-11894-1

Method Blank - Batch: 720-28892

Lab Sample ID: MB 720-28892/1-A
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 11/26/2007 1048
 Date Prepared: 11/23/2007 1119

Analysis Batch: 720-29036
 Prep Batch: 720-28892
 Units: ug/L

**Method: 8015B
 Preparation: 3510C**

Instrument ID: Varian DRO4
 Lab File ID: N/A
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C9-C24]	ND		50
Surrogate	% Rec		Acceptance Limits
p-Terphenyl	92		50 - 150

**Lab Control Spike/
 Lab Control Spike Duplicate Recovery Report - Batch: 720-28892**

LCS Lab Sample ID: LCS 720-28892/2-A
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 11/26/2007 1235
 Date Prepared: 11/23/2007 1119

Analysis Batch: 720-29036
 Prep Batch: 720-28892
 Units: ug/L

Instrument ID: Varian DRO4
 Lab File ID: N/A
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume:
 Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-28892/3-A
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 11/26/2007 1301
 Date Prepared: 11/23/2007 1119

Analysis Batch: 720-29036
 Prep Batch: 720-28892
 Units: ug/L

Instrument ID: Varian DRO4
 Lab File ID: N/A
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Diesel Range Organics [C9-C24]	61	66	50 - 130	7	30		
Surrogate		LCS % Rec					Acceptance Limits
p-Terphenyl		83		96			50 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: SECOR International, Inc.

Job Number: 720-11894-1

Method Blank - Batch: 720-28932

Method: 1664A
Preparation: 1664A

Lab Sample ID: MB 720-28932/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/26/2007 1241
Date Prepared: 11/26/2007 1224

Analysis Batch: 720-28933
Prep Batch: 720-28932
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

Analyte	Result	Qual	RL
HEM (Oil & Grease)	ND		2.0

**Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 720-28932**

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID: LCS 720-28932/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/26/2007 1241
Date Prepared: 11/26/2007 1224

Analysis Batch: 720-28933
Prep Batch: 720-28932
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

LCSD Lab Sample ID: LCSD 720-28932/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/26/2007 1241
Date Prepared: 11/26/2007 1224

Analysis Batch: 720-28933
Prep Batch: 720-28932
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
HEM (Oil & Grease)	97	97	87 - 100	0	13		

Calculations are performed before rounding to avoid round-off errors in calculated results.



Chain of Custody Record **720-11894**
 Project Name: 76(former BP) Service Station No. 11126
 BP BU/AR Region/Enfos Segment: Environmental/Retail
 State or Lead Regulatory Agency: SCCDEH
 Requested Due Date (mm/dd/yy): 14 day TAT

108293
1 of 2

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: SEVERN TRENT Laboratories (STL) Address: 1220 Quarry Lane, Pleasanton, CA 94566	BP/AR Facility No.: 11126 BP/AR Facility Address: 1700 Powell Street Emeryville, Ca Site Lat/Long: 37.838926108 -122.295216	Consultant/Contractor: SECOR International Inc. Address: 3017 Kilgore Rd. Suite 100 Rancho Cordova, CA 95670
Lab PM: Dimple Sharma Tele/Fax: 925-484-1919	California Global ID No.: T0600100208 Enfos Project No.:	Consultant Project No.: 77BP.11126.01.0403/77CP.01731.40.2080 Consultant/Contractor PM: Catherine Spelis/Brad Shelton
BP/AR EBM: Paul Supple Address: P.O. Box 1257 San Ramon, CA 94583 Tele/Fax: 925-299-8891	Provision or OOC (circle one) Phase/WBS: Sub Phase/Task: Cost Element:	Tele/Fax: 916-861-0400 Ext. 320/329 Report Type & QC Level: Quarterly Monitoring and Sampling E-mail EDD To: BPCPNCal@secor.com bpdata@secor.com Invoice to: SECOR International

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments				
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO/BTEX/6 oxygenates/ 1,2-DCA/EDB by EPA 8260B	GRO/BTEX/IMBE by EPA 8260B	TPH by EPA 8015M* <input type="checkbox"/> Diesel	Total Oil and Grease (EPA 1664)						
1	MW-1	1030	11/21	x				3				x											
2	MW-2	1100		x				3				x											
3	MW-3	840		x				5				x			x	x							
4	MW-4	1000		x				3				x											
5	MW-5	920		x				3				x											
6	MW-6	1035		x				3				x											
7	MW-7	1103		x				3				x											
8	MW-8	955		x				3				x											
9	MW-9	1140		x				3				x											
10	MW-10	901		x				3				x											

Sampler's Name: <u>Raymond Goele</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: <u>SECCR</u>	<u>Raymond Goele</u>	<u>11-21-07</u>	<u>1325</u>	<u>Raymond Goele</u>	<u>11-21-07</u>	<u>1325</u>
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Bill costs to SECOR. EDF must be in BP format. This for site BP #11126 quarterly monitoring and sampling.

Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 3 °F | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Login Sample Receipt Check List

Client: SECOR International, Inc.

Job Number: 720-11894-1

Login Number: 11894

Creator: Mullen, Joan

List Number: 1

List Source: TestAmerica San Francisco

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	