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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



Stantec

**Quarterly Groundwater Monitoring
Progress Report Second Quarter 2009**

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

Stantec Project No.: 211601178.201 and
211402220.200

Submitted to:

Mr. Paresh Khatri
Alameda County Environmental Health
Department
1131 Harbor Bay Parkway, Suite 250
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Submitted by:

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July 29, 2009

Table of Contents

1.0 SITE INFORMATION AND BACKGROUND.....	1
2.0 GROUNDWATER MONITORING AND SAMPLING.....	3
2.1 MONITORING AND SAMPLING PROCEDURES	3
2.2 GROUNDWATER SAMPLE ANALYSIS	3
2.3 QUALITY ASSURANCE / QUALITY CONTROL	3
<hr/>	
3.0 DISCUSSION / CONCLUSION.....	4
3.1 GROUNDWATER SAMPLE RESULTS AND DISTRIBUTION.....	4
<hr/>	
4.0 PURGE WATER DISPOSAL	5
5.0 RECOMMENDATIONS AND CONCLUSIONS	5
6.0 LIMITATIONS	7

LIST OF FIGURES

- Figure 1 – Groundwater Elevation Contour Map Second Quarter 2009
- Figure 2 – GRO Isoconcentration Contour Map Second Quarter 2009
- Figure 3 – Benzene Isoconcentration Contour Map Second Quarter 2009
- Figure 4 – MTBE Isoconcentration Contour Map Second Quarter 2009
- Figure 5 – TBA Isoconcentration Contour Map Second Quarter 2009
- Figure 6 – Groundwater Flow Direction Rose Diagram

LIST OF TABLES

- 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

LIST OF ATTACHMENTS

- Attachment A Previous Investigations and Site History Summary
- Attachment B Stantec’s Procedures for Groundwater Monitoring and Sampling, and Equipment Decontamination
- Attachment C Quarterly Monitoring Field Data Sheets
- Attachment D Certified Laboratory Analytical Report, Chain-of-Custody Documentation, and Stantec Laboratory Validation Form
- Attachment E Waste Manifest Documentation
- Attachment F Regulatory Correspondences Dated April 2, 2009 and July 10, 2009

1.0 SITE INFORMATION AND BACKGROUND

Service Station No.:	11126
Site Address:	1700 Powell Street, Emeryville, California 94608
Consulting Company:	Stantec Consulting Corporation (Stantec) – Ms. Catherine Francini
Stantec Project No.:	211601178.201 and 211402220.200
Primary Agency / Contact:	Mr. Paresh Khatri Alameda County Environmental Health Department 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

WORK PERFORMED THIS QUARTER [SECOND – 2009]

1. Stantec submitted the *Quarterly Groundwater Monitoring Progress Report (QMR) First Quarter 2009 (1Q09)* on April 15, 2009.
2. Stantec performed the groundwater monitoring and sampling event on May 28, 2009.
3. Stantec received a letter dated April 2, 2009 from the Alameda County Environmental Health Services (ACEH) requesting the submittal of work plan for additional assessment and a revised Feasibility Study/Corrective Action Plan (FS/CAP).
4. Stantec submitted *Work Plan for Additional Assessment and Extension Request* on June 1, 2009. The work plan proposed the installation of one off-site groundwater monitoring well and three on-site exploratory soil borings. The work plan additionally requested an extension to the July 2, 2009 deadline for submittal of the FS/CAP.
5. In an email correspondence dated June 24th, 2009, the ACEH approved an extension of the FS/CAP until after the work plan is implemented and additional data is collected.

WORK PROPOSED FOR NEXT QUARTER [THIRD – 2009]

1. Stantec will prepare and submit the QMR-2Q09.
2. Stantec will perform the monitoring and sampling event.
3. In response to a letter from ACEH dated July 10, 2009, Stantec will submit a work plan addendum by August 28, 2009. The letter from the ACEH additionally included a directive to reduce wells sampled quarterly to semi-annually. Stantec will modify the sampling schedule starting 3Q09.

Background

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 site plan is included as Figure 1. The current and historical groundwater monitoring and analytical data are summarized in Tables 1 and 2 and are presented in Figures 2 through 5. The current and historical groundwater flow direction and hydraulic gradient data are summarized in Table 3 and are presented in Figure 6. Well construction details are found in Table 4. Previous investigations and site history summary are included as Attachment A. Stantec's procedures for groundwater monitoring and sampling and equipment decontamination are included as Attachment B. Groundwater sampling field data sheets are included as Attachment C. The certified laboratory analytical report, and chain-of-custody documentation for the quarterly groundwater sampling are included as Attachment D. Waste manifest documentation is included as Attachment E

SITE INFORMATION

Current phase of project:	Groundwater monitoring and sampling
Have separate-phase hydrocarbons (SPH) historically been found on-site?:	No
Historic range in depth-to-water (DTW) [ft below top of casing (TOC), 4Q93 to 2Q09]:	2.50 ft to 10.74 ft
Water Supply Wells within a 2,000-foot radius and their Respective Direction:	unknown
Current remediation technique:	Natural Attenuation

CURRENT SAMPLING SCHEDULE

Well ID:	All Quarters
MW-1, MW-2, and MW-4 through MW-11	GRO/BTEX/OXYS/1,2-DCA/EDB
MW-3	GRO/BTEX/OXYS/1,2-DCA/EDB/DRO/TOG
Gasoline range organics (GRO); benzene, toluene, ethylbenzene, xylenes (collectively BTEX); methyl tert-butyl ether (MTBE), tertiary butyl alcohol (TBA), tert-amyl methyl ether (TAME), di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), ethanol (collectively OXYS); 1,2-Dichloroethane (1,2-DCA); 1,2-dibromoethane (EDB); diesel range organics (DRO); total petroleum hydrocarbons as oil and grease (TOG)	

CURRENT QUARTER MONITORING DATA

Wells Monitored and Sampled:	MW-1 through MW-11
Sampling Date	May 28, 2009
Depth to Groundwater (DTW, ft below TOC)	4.02 ft in MW-1 to 10.40 ft in MW-11
Average Change in Groundwater Elevation Since Last Event (ft):	0.69 decrease [5.74 (1Q09) – 5.05 (2Q09)]
Groundwater Flow Direction and Gradient [foot per foot (ft/ft)]:	Southwest at 0.017

CURRENT QUARTER ANALYTICAL DATA

Constituents	No. of detections above the laboratory method reporting limits (MRL): No. of wells analyzed	Minimum Concentration [micrograms per liter (µg/L)]	Maximum Concentration (µg/L)
GRO	6 : 11	<50	55,000 (MW-2)
Benzene	3 : 11	<1.0	4,700 (MW-2)
MTBE	9 : 11	<1.0	2,800 (MW-2)
TBA	8 : 11	<5.0	36,000 (MW-4)

2.0 Groundwater Monitoring and Sampling

2.1 MONITORING AND SAMPLING PROCEDURES

The current groundwater monitoring well network consists of 11 wells (MW-1 through MW-11). DTW measurements are taken and groundwater samples are currently collected on a quarterly basis. During the second quarter 2009, groundwater samples were collected on May 28, 2009. Stantec's field procedures for sample collection are presented as Attachment B. Field notes from the second quarter sampling event are included as Attachment C.

2.2 GROUNDWATER SAMPLE ANALYSIS

The groundwater samples were submitted to Lancaster Laboratories of Lancaster, Pennsylvania, a state of California certified lab (No. 2116), for analysis of GRO, BTEX, fuel oxygenates (MTBE, TAME, DIPE, EtBE, TBA, and ethanol), and lead scavengers 1,2-DCA and 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 DRO by EPA Method 8015B and TOG by EPA Method 1664A. The certified laboratory analytical report and chain-of-custody documentation are included as Attachment D.

2.3 QUALITY ASSURANCE / QUALITY CONTROL

Analytical data was quality assured and quality controlled using the Stantec Lab Validation Form. All data is acceptable except for the following issues:

In regards to BTEX, preservation requirements were not met for sample #5686601 (MW-4). The vial submitted for volatile analysis did not have a pH<2. The pH of the sample was pH=5.

The matrix spike (MS) from Batch z091601AA had a percent recovery (%REC) value that was above the acceptance limits for MTBE; however, the laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) from the same batch had a %REC value that was within the acceptance limits, thus not affecting the accuracy of the data

3.0 Discussion / Conclusion

3.1 GROUNDWATER SAMPLE RESULTS AND DISTRIBUTION

During the second quarter 2009, depth to groundwater within the wells ranged from 4.02 ft below TOC in well MW-1 to 10.40 ft below TOC in well MW-11. Historical depth to groundwater levels have ranged between approximately 2.50 ft and 10.51 ft below TOC. On May 28, 2009, the direction of groundwater flow beneath and in the site vicinity was toward the southwest at a hydraulic gradient of 0.017 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.

Dissolved GRO, BTEX, and MTBE

During the second quarter 2009 monitoring and sampling event, well MW-2 contained the greatest concentrations of GRO at 55,000 µg/L. Additionally, concentrations of GRO were detected in wells MW-1, MW-4, MW-5, MW-8, and MW-9 at concentrations ranging from 270 µg/L (MW-8) to 4,400 µg/L (MW-5 and MW-9) during the current quarter.

During the second quarter 2009, well MW-2 contained the greatest concentrations of BTEX at respective concentrations of 4,700 µg/L, 740 µg/L, 3,800 µg/L, and 8,100 µg/L. Benzene was additionally detected in wells MW-1 (64 µg/L) and MW-9 (420 µg/L); toluene was additionally detected in wells MW-1 (1.5 µg/L) and MW-9 (14 µg/L); ethylbenzene was additionally detected in wells MW-1 (3.4 µg/L) and MW-9 (270 µg/L); xylenes were additionally detected in wells MW-1 (9.4 µg/L), MW-5 (1.8 µg/L), and MW-9 (170 µg/L), during the current quarter.

During the second quarter 2009, the greatest concentrations of MTBE was detected in well MW-2 at 2,800 µg/L. MTBE was additionally detected in wells MW-1, MW-3, MW-4, and MW-6 through MW-10 at concentrations ranging from 1.3 µg/L (MW-10) to 720 µg/L (MW-9) during the current quarter.

Dissolved Other Fuel Oxygenates and Lead Scavengers

During the second quarter 2009, TBA was detected in wells MW-1 through MW-4 and MW-6 through MW-9 with concentrations ranging from 55 µg/L (MW-6) to 36,000 µg/L (MW-4). TAME was detected in wells MW-1 (1.3 µg/L), MW-2 (110 µg/L), MW-4 (1.1 µg/L), and MW-9 (21 µg/L) during the second quarter 2009. Additionally, ETBE was detected in well MW-4 at 2.9 µg/L during the current quarter. Other oxygenates (DIPE and ethanol) and lead scavengers (1,2-DCA, and EDB) were not detected at or above laboratory MRLs during the second quarter 2009.

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 second quarter 2009 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-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 ft below ground surface (bgs).

Since the groundwater gradient has been predominately to the southwest with occasional fluctuations to the south, and the site has been adequately delineated in those directions, it appears the plume is stable and confined to the site boundaries.

4.0 Purge Water Disposal

Approximately 55 gallons of purged groundwater were generated during the second quarter 2009 groundwater sampling event. The water was transferred into 55-gallon, steel, California Department of Transportation-approved drums pending waste characterization and transported by Belshire Environmental Services Inc. to DeMenno Kerdoon in Compton, California for disposal. Waste manifest documentation is included as Attachment E.

5.0 Recommendations and Conclusions

In a letter dated February 1, 2007, the ACEH requested the submittal of a remedial action plan to address source area contamination. SECOR, now Stantec, submitted the *Remedial Action Plan* on March 30, 2007. The plan recommended oxygen injection as a possible remedial option and suggested that the plume is adequately delineated to south and southwest.

In a letter dated April 2, 2009, the ACEH requested the submittal of a new work plan for the installation of an additional off-site groundwater monitoring well further to the southwest of the site. The ACEH additionally requested the submittal of a revised FS/CAP to evaluate remedial alternatives to the previously proposed oxygen injection. Stantec submitted *Work Plan for Additional Assessment and Extension Request* on June 1, 2009. The scope of work included the installation of one off-site monitoring well and three on-site exploratory borings in the vicinity of monitoring well MW-9. The work plan additionally requested an extension to the FS/CAP. In an email correspondence dated June 24, 2009, the ACEH approved an extension of the FS/CAP until after the work plan is implemented and additional data is collected.

In a letter dated July 10, 2009, the ACEH requested a work plan addendum. The addendum is to include an alternative location for an off-site groundwater monitoring well to the west of the

Stantec

QMR - 2Q09

76 (Former BP) Service Station No. 11126

July 29, 2009

site near Denny's restaurant, modifications of the depths at which exploratory borings will be conducted on-site, and a preferential pathway study. Stantec is reviewing the letter and anticipates submitting the work plan addendum to the ACEH by the August 28, 2009 deadline.

6.0 Limitations

This report was prepared in accordance with the scope of work outlined in Stantec'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 Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec 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 Stantec.

Prepared by:



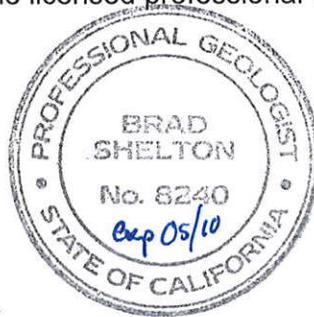
Kimber Collins
Project Scientist

All information, conclusions, and recommendations provided by Stantec 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:



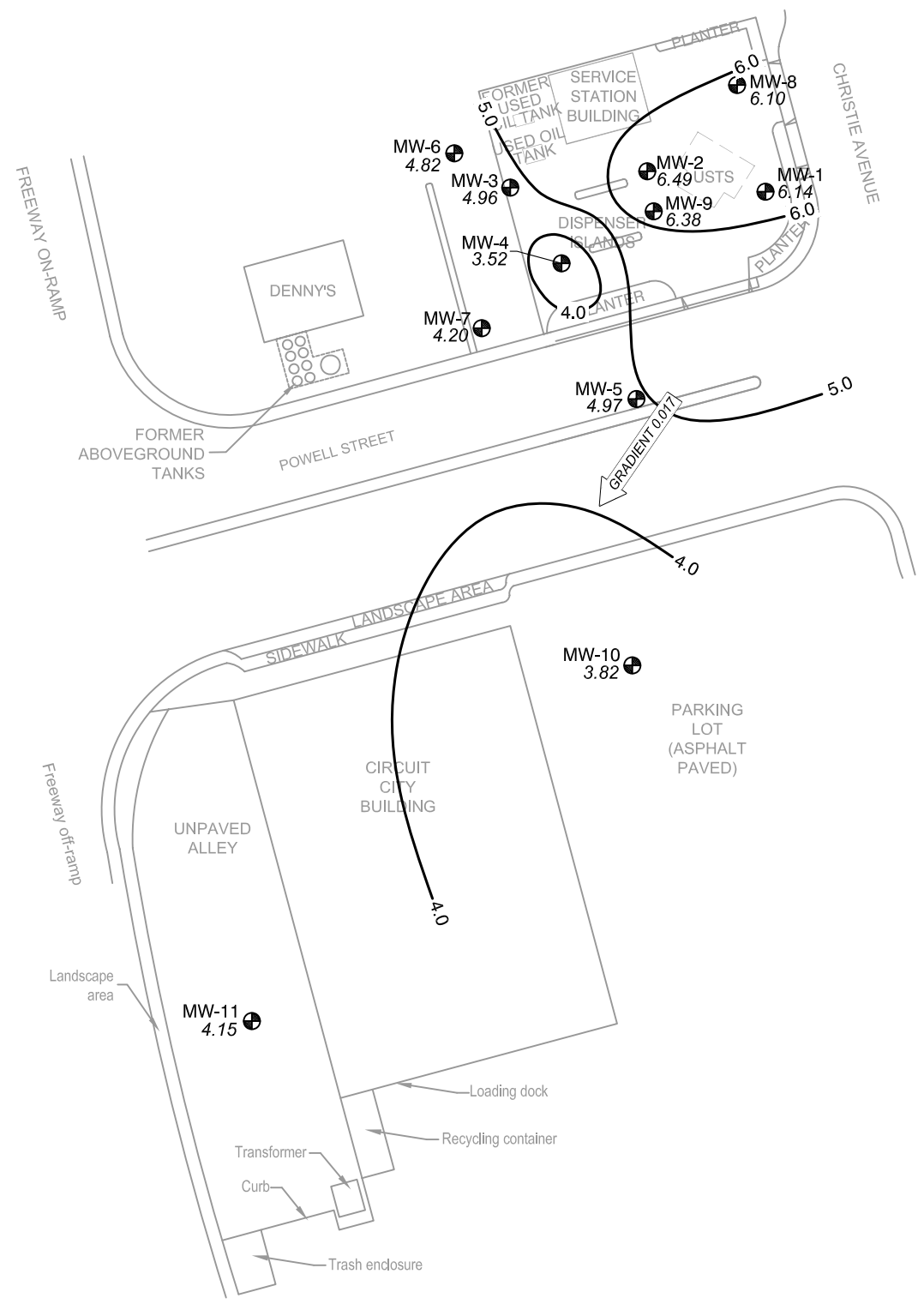
Brad Shelton, P.G.
Associate Geologist



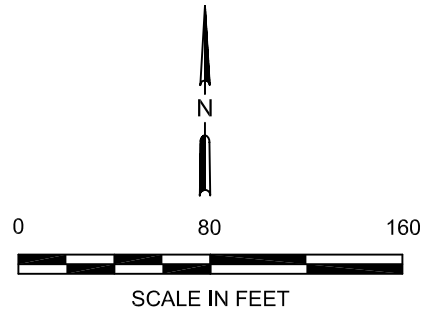
July 29, 2009

cc: Mr. Paul Supple, Atlantic Richfield Company (electronic upload to ENFOS)
Ms. Shelby Lathrop, ConocoPhillips (electronic upload to LiveLink)

Figures



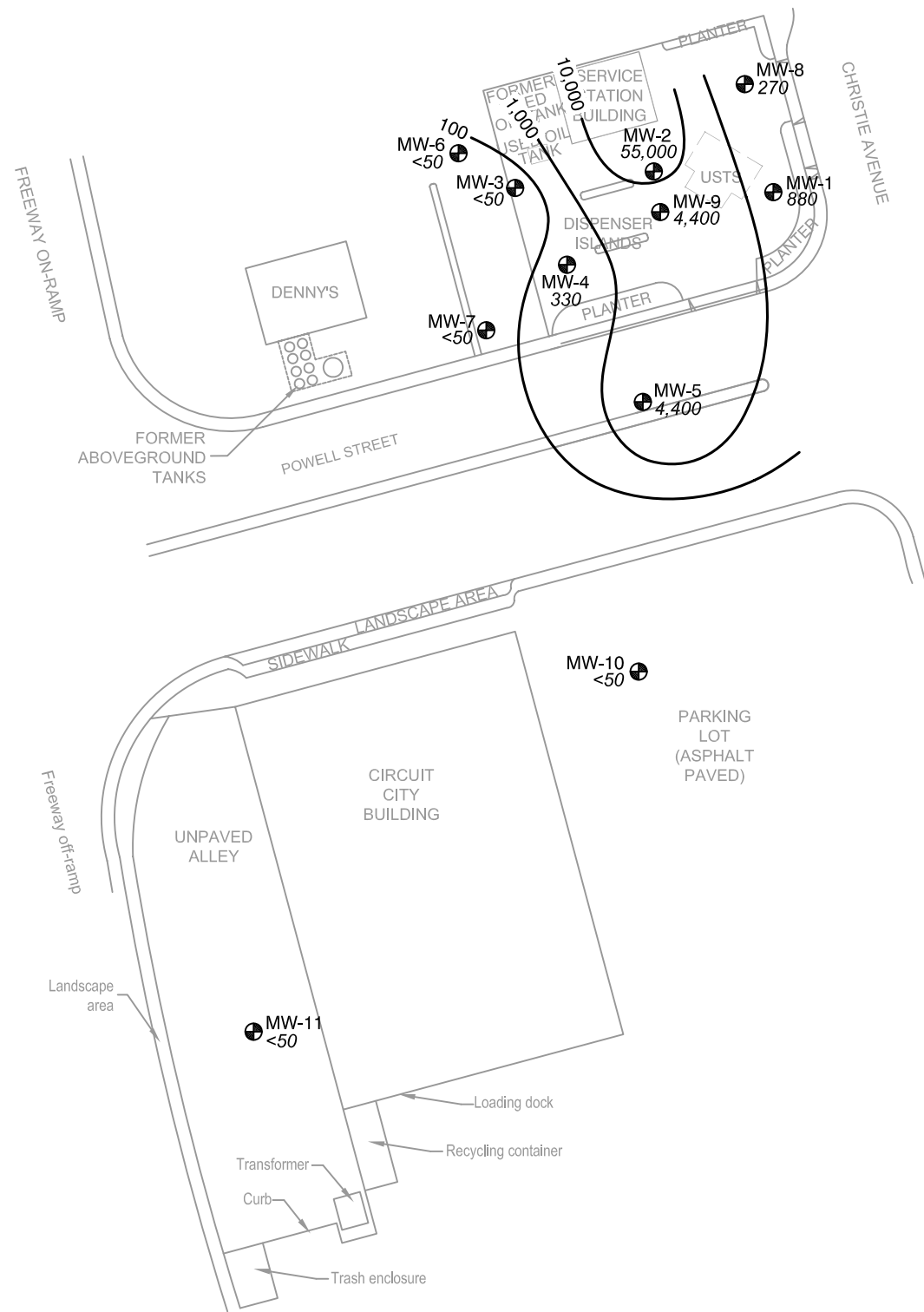
- LEGEND:**
- MW-1 GROUNDWATER MONITORING WELL LOCATION
 - APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)
 - 4.0 GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL)
 - 4.82 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)



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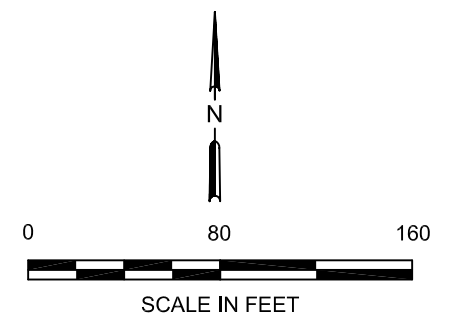
NOTE: SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FIGURES FACILITY LOCATIONS NOT VERIFIED.

	FOR: 76 (FORMER BP) SERVICE STATION NO. 11126 1700 POWELL STREET EMERYVILLE, CALIFORNIA		GROUNDWATER ELEVATION CONTOUR MAP SECOND QUARTER 2009		FIGURE: 1
	JOB NUMBER: 211601178.201.522 211402220.200.0130	DRAWN BY: MDR/STA	CHECKED BY: KC	APPROVED BY: BS	DATE: 06/23/09



LEGEND:

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



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FOR:
76 (FORMER BP)
SERVICE STATION NO. 11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

**GRO ISOCONCENTRATION
CONTOUR MAP
SECOND QUARTER 2009**

FIGURE:
2

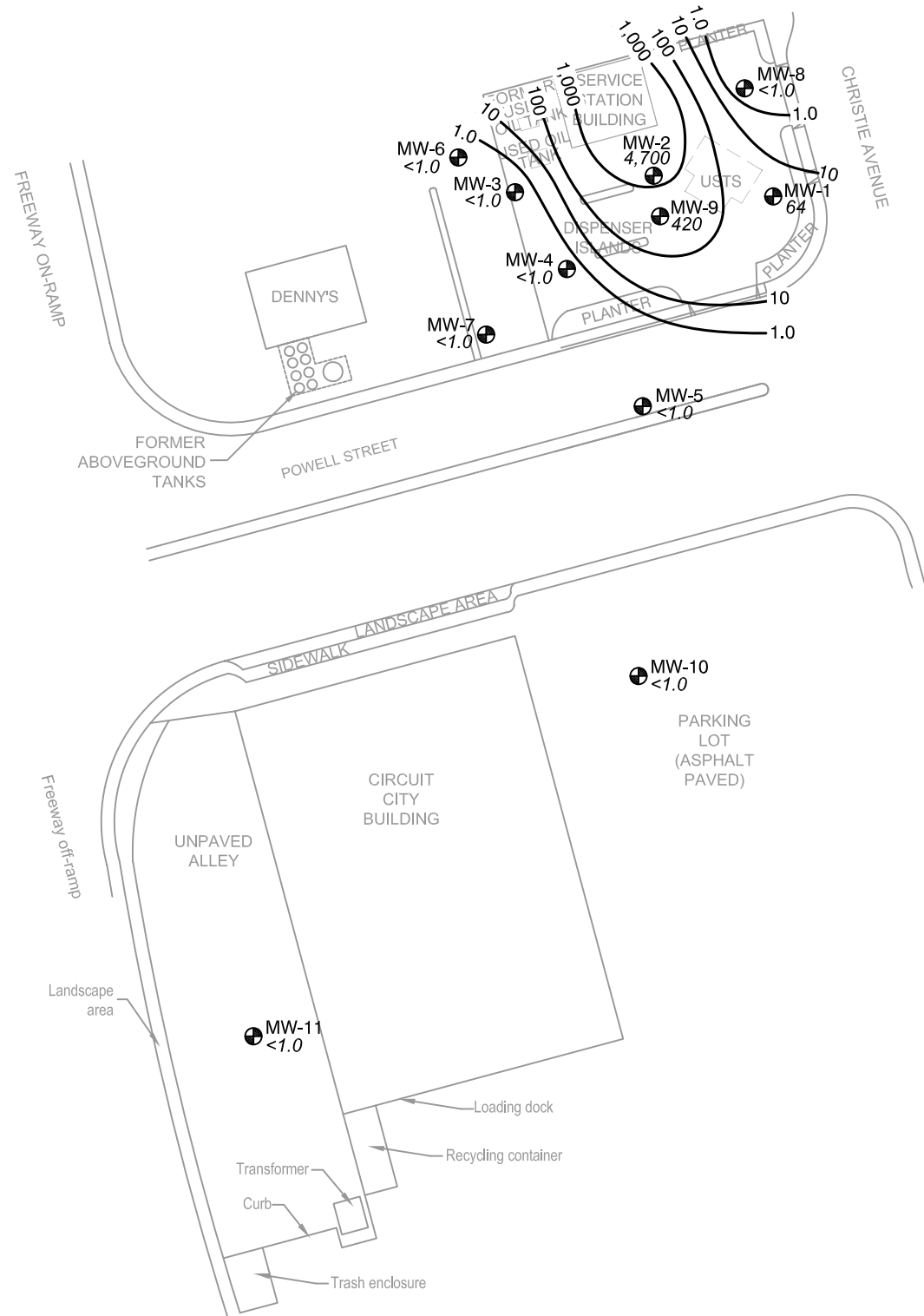
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CHECKED BY:
KC

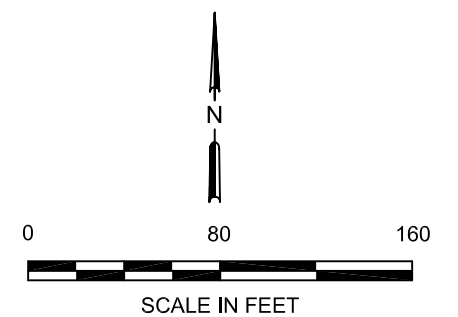
APPROVED BY:
BS

DATE:
06/23/09



LEGEND:

- MW-1 ⊕ GROUNDWATER MONITORING WELL
- 10 — BENZENE ISOCONCENTRATION CONTOUR
- 64 — BENZENE CONCENTRATION (µg/L)
- µg/L — MICROGRAMS PER LITER



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FOR: 76 (FORMER BP)
SERVICE STATION NO. 11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

**BENZENE ISOCONCENTRATION
CONTOUR MAP
SECOND QUARTER 2009**

FIGURE:
3

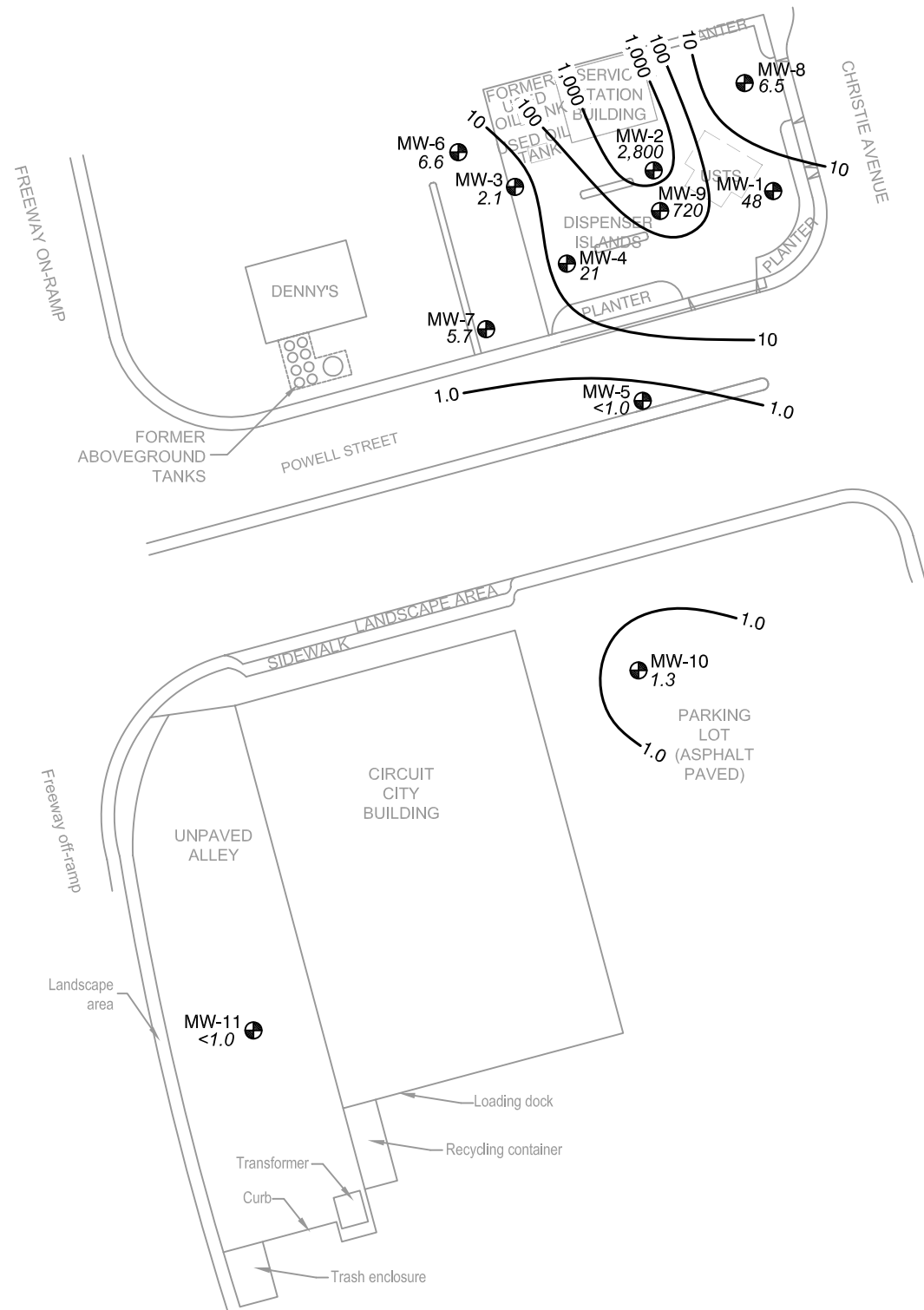
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CHECKED BY:
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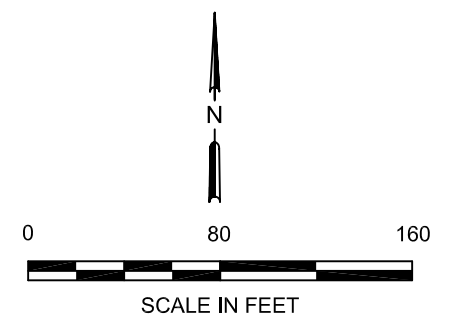
APPROVED BY:
BS

DATE:
06/23/09



LEGEND:

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



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FOR: 76 (FORMER BP)
SERVICE STATION NO. 11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

**MTBE ISOCONCENTRATION
CONTOUR MAP
SECOND QUARTER 2009**

FIGURE:
4

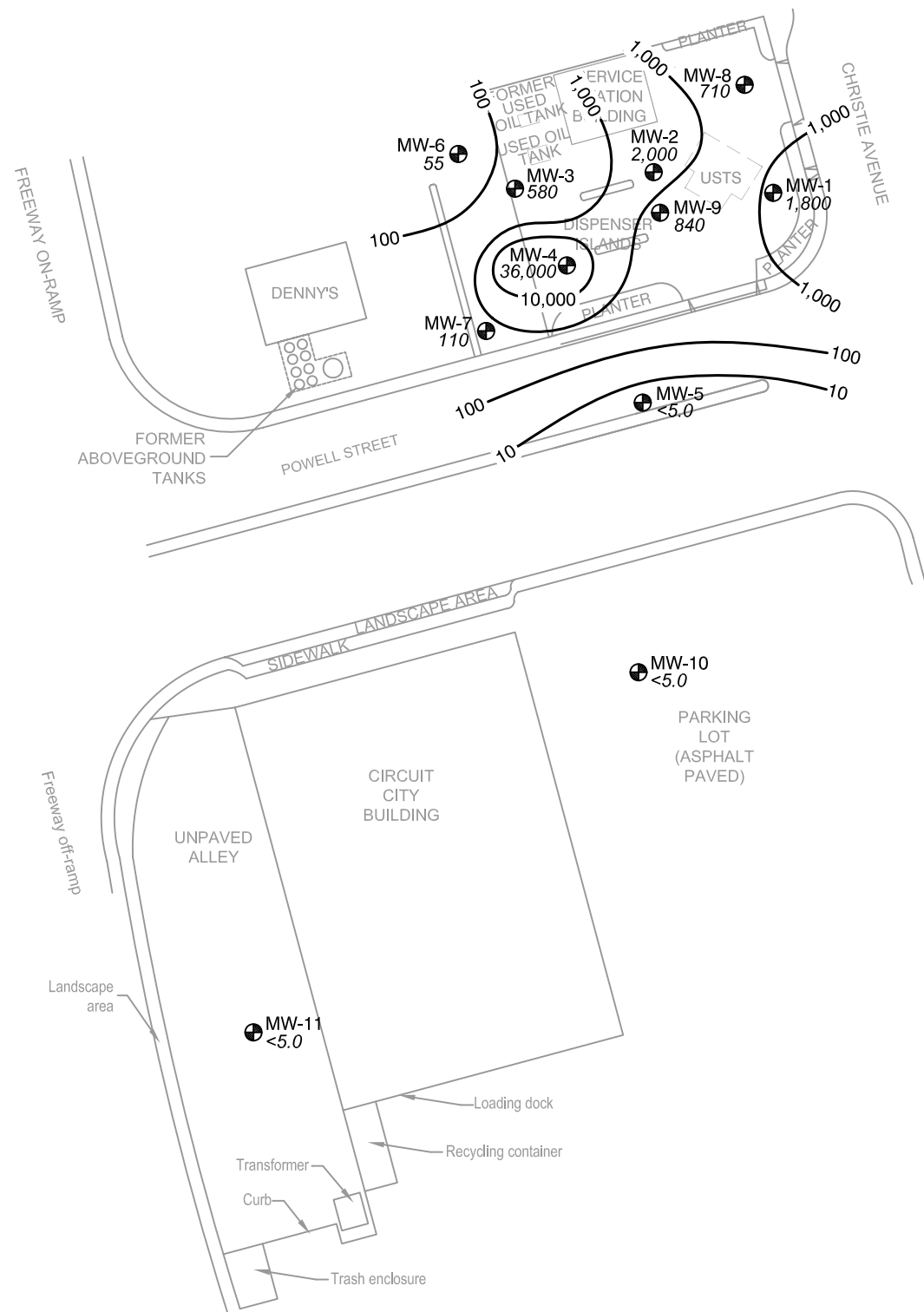
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CHECKED BY:
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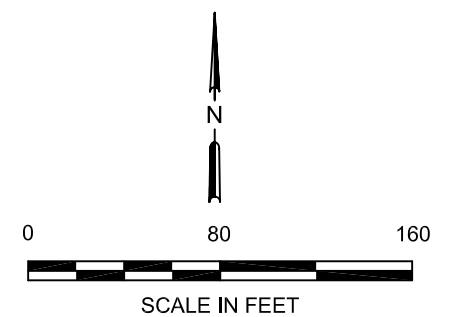
APPROVED BY:
BS

DATE:
06/23/09



LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- 100 TBA ISOCONCENTRATION CONTOUR
- 55 TBA CONCENTRATION ($\mu\text{g/L}$)
- TBA TERTIARY BUTYL ALCOHOL
- $\mu\text{g/L}$ MICROGRAMS PER LITER



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FOR:
76 (FORMER BP)
SERVICE STATION NO. 11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

**TBA ISOCONCENTRATION
CONTOUR MAP
SECOND QUARTER 2009**

FIGURE:
5

JOB NUMBER:
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MDR/STA

CHECKED BY:
KC

APPROVED BY:
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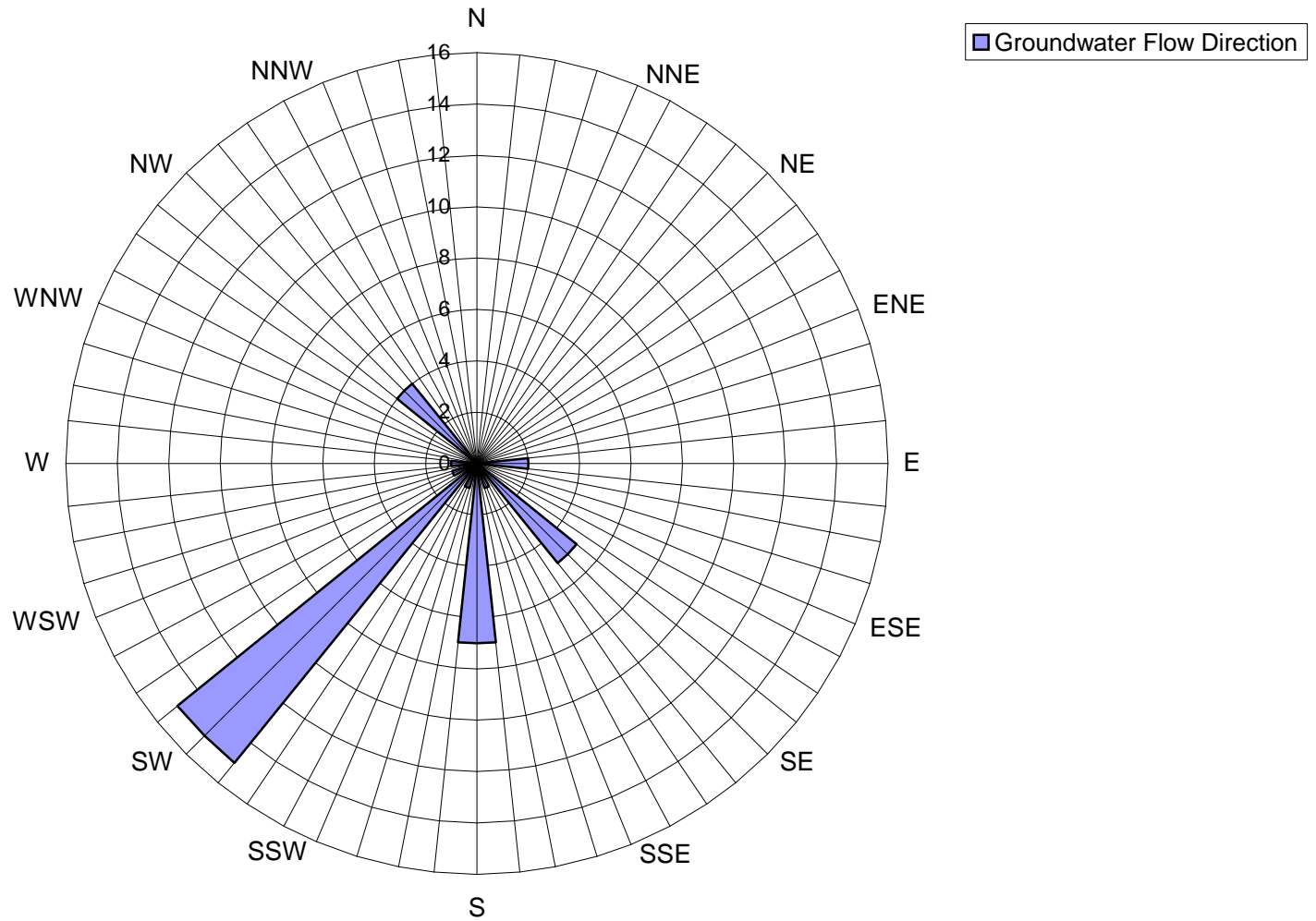
DATE:
06/23/09

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 Second Quarter 2009.



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	05/28/09		10.16	4.02	0.00	6.14	880	-	-	64	1.5	3.4	9.4	48	1,800	<1.0	<1.0	1.3	<250	<1.0	<1.0	0.46		
MW-2	05/28/09		11.39	4.90	0.00	6.49	55,000	-	-	4,700	740	3,800	8,100	2,800	2,000	<10	<10	110	<2,500	<10	<10	0.27		
MW-3	05/28/09		10.73	5.77	0.00	4.96	<50	1,600	<5,000	<1.0	<1.0	<1.0	<1.0	2.1	580	<1.0	<1.0	<1.0	<250	<1.0	<1.0	0.19		
MW-4	05/28/09		10.58	7.06	0.00	3.52	330	-	-	<1.0	<1.0	<1.0	<1.0	21	36,000	<1.0	2.9	1.1	<250	<1.0	<1.0	0.41		
MW-5	05/28/09		10.18	5.21	0.00	4.97	4,400	-	-	<1.0	<1.0	<1.0	1.8	<1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	2.15		
MW-6	05/28/09		11.01	6.19	0.00	4.82	<50	-	-	<1.0	<1.0	<1.0	<1.0	6.6	55	<1.0	<1.0	<1.0	<250	<1.0	<1.0	2.77		
MW-7	05/28/09		10.11	5.91	0.00	4.20	<50	-	-	<1.0	<1.0	<1.0	<1.0	5.7	110	<1.0	<1.0	<1.0	<250	<1.0	<1.0	1.77		
MW-8	05/28/09		11.08	4.98	0.00	6.10	270	-	-	<1.0	<1.0	<1.0	<1.0	6.5	710	<1.0	<1.0	<1.0	<250	<1.0	<1.0	2.14		
MW-9	05/28/09		10.55	4.17	0.00	6.38	4,400	-	-	420	14	270	170	720	840	<1.0	<1.0	21	<250	<1.0	<1.0	0.94		
MW-10	05/28/09		12.53	8.71	0.00	3.82	<50	-	-	<1.0	<1.0	<1.0	<1.0	1.3	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	2.76		
MW-11	05/28/09		14.55	10.40	0.00	4.15	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	3.06		
QCTB	05/28/09		-	-	-	-	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	-	

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

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 reporting limit

- = 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			5.51	0.00	2.25	15,000	-	-	3,600	740	510	2,800	9,718	-	-	-	-	-	-	-	-	-	-	2.9
	08/01/94	DUP		-	-	-	16,000	-	-	3,600	750	510	2,800	9,800	-	-	-	-	-	-	-	-	-	-	-
	10/18/94			5.11	0.00	2.65	16,000	-	-	1,800	61	160	890	15,668	-	-	-	-	-	-	-	-	-	-	2.9
	10/18/94	DUP		-	-	-	16,000	-	-	1,900	64	170	950	-	-	-	-	-	-	-	-	-	-	-	-
	01/13/95	DUP		-	-	-	590	-	-	88	0.70	<0.50	55	-	-	-	-	-	-	-	-	-	-	-	-
	01/13/95			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			-	-	-	12,000	-	-	2,800	170	390	1,630	64,000	-	-	-	-	-	-	-	-	-	-	7.9
	07/16/96	DUP		-	-	-	12,000	-	-	2,800	160	390	1,610	63,000	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-

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	09/06/02		7.76	5.56	0.00	2.20	1,100	-	-	170	5.1	2.2	20	550	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used Past holding time Well purged dry
	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	-	-	-	-	-	-	-	-	-	-	
	06/06/03		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	-	-	-	-	-		
	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	-	-	-		
	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	-	-	-		
	02/29/08		3.49	0.00	6.67	970	-	-	100	1.9	37	32	25	1,200	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-		
	05/23/08		4.26	0.00	5.90	1,300	-	-	170	3.5	15	26	120	1,800	<1.0	<0.50	1.4	<250	<0.50	<0.50	-	-	-		
	09/26/08		4.29	0.00	5.87	1,800	-	-	26	6.1	<1.0	10	120	1,400	<1.0	<1.0	1.9	<250	<1.0	<1.0	-	-	-		
12/23/08		3.79	0.00	6.37	1,600	-	-	14	6.1	1.2	9.7	75	940	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-			
03/09/09		3.29	0.00	6.87	2,100	-	-	200	5.6	16	29	88	1,300	<1.0	<1.0	1.7	<250	<1.0	<1.0	-	-	-			
05/28/09			4.02	0.00	6.14	880	-	-	64	1.5	3.4	9.4	48	1,800	<1.0	<1.0	1.3	<250	<1.0	<1.0	-	-	0.46		
MW-2	11/04/92		8.56	5.88	0.00	2.68	12,000	-	-	3,900	1,300	<0.50	2,300	-	-	-	-	-	-	-	-	-	-	-	
	11/04/92	DUP		-	-	-	12,000	-	-	3,200	980	<0.50	1,900	-	-	-	-	-	-	-	-	-	-	-	
	10/12/93		6.29	0.00	2.27	4,500	-	-	3,400	180	230	940	442	-	-	-	-	-	-	-	-	-	-		
	02/15/94		-	-	-	1,800	-	-	290	160	14	250	-	-	-	-	-	-	-	-	-	-	-		
	02/15/94	DUP	5.56	0.00	3.00	2,000	-	-	430	270	28	390	127	-	-	-	-	-	-	-	-	-	4.0		
	05/11/94		5.17	0.00	3.39	14,000	-	-	3,900	1,200	440	1,900	953	-	-	-	-	-	-	-	-	-	8.9		
	05/11/94	DUP	-	-	-	15,000	-	-	5,600	1,500	470	2,000	740	-	-	-	-	-	-	-	-	-	-		
	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		4.37	0.00	4.19	33,000	-	-	8,000	2,500	1,100	6,600	-	-	-	-	-	-	-	-	-	-	7.5		
	04/13/95	DUP	-	-	-	25,000	-	-	6,500	1,500	110	5,300	-	-	-	-	-	-	-	-	-	-	-		
	07/11/95		4.51	0.00	4.05	19,000	-	-	3,300	99	7.5	4,600	-	-	-	-	-	-	-	-	-	-	7.8		
	07/11/95	DUP	-	-	-	28,000	-	-	6,800	1,000	900	4,900	-	-	-	-	-	-	-	-	-	-	-		
11/02/95		5.55	0.00	3.01	20,000	-	-	3,800	1,200	570	2,700	15,000	-	-	-	-	-	-	-	-	-	7.3			
11/02/95	DUP	-	-	-	22,000	-	-	4,000	1,200	600	2,700	19,000	-	-	-	-	-	-	-	-	-	-			

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-2	02/05/96		8.56	5.10	0.00	3.46	1,200	-	-	320	220	26	187	99	-	-	-	-	-	-	-	-	-	2.2	
	02/05/96	DUP		-	-	-	910	-	-	290	180	19	137	93	-	-	-	-	-	-	-	-	-	-	
	04/24/96			-	-	-	<500	-	-	100	30	<10	71	<100	-	-	-	-	-	-	-	-	-	-	
	04/24/96	DUP		4.95	0.00	3.61	<500	-	-	70	22	<10	61	<50	-	-	-	-	-	-	-	-	-	7.0	
	07/15/96			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			-	-	-	7,200	-	-	1,400	230	38	2,110	1,100	-	-	-	-	-	-	-	-	-	7.4	
	11/05/96	DUP		-	-	-	9,200	-	-	1,300	170	<25	2,240	1,100	-	-	-	-	-	-	-	-	-	-	
	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	
	11/17/97			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	-	-	-	-	-	-	-	-	-	-	
	02/19/03			4.14	0.00	4.42	78,000	-	-	1,100	<500	<500	<500	81,000	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used
	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	-	-	-	-	

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	03/23/06		11.39	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	-	-		
	02/29/08			4.41	0.00	6.98	44,000	-	-	6,100	320	3,800	6,600	4,900	2,500	<100	<50	120	<25,000	<50	<50	-	-		
	05/23/08			5.25	0.00	6.14	13,000	-	-	1,700	<50	300	210	2,500	29,000	140	<50	60	<25,000	<50	<50	-	-		
	09/26/08			5.81	0.00	5.58	4,800	-	-	220	12	20	42	960	77,000	<1.0	2.8	42	<250	<1.0	<1.0	-	-		
	12/23/08			5.50	0.00	5.89	5,700	-	-	950	19	170	70	1,800	57,000	<2.0	2.4	51	<500	<2.0	<2.0	-	-		
	03/09/09			4.35	0.00	7.04	25,000	-	-	3,200	73	2,800	2,200	2,200	21,000	<20	<20	82	<5,000	<20	<20	-	-		
	05/28/09			4.90	0.00	6.49	55,000	-	-	4,700	740	3,800	8,100	2,800	2,000	<10	<10	110	<2,500	<10	<10	-	0.27		
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			-	-	-	150	-	-	5.6	0.60	<0.50	1.6	-	-	-	-	-	-	-	-	-	-	-	
	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	-	
	02/15/94			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	
	01/13/95			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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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 Thicknes s (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	09/15/00		8.25	5.58	0.00	2.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DTW anomalous			
	12/11/00			11.74	0.00	-3.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		
	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	-	-	-	-	-			
	12/01/06		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	-	-	-	-	-				
02/29/08		5.38	0.00	5.35	<50	350	<2.0	<0.50	<0.50	<0.50	<1.0	0.90	540	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-	-				
05/23/08		6.07	0.00	4.66	<500	1,100	<2.0	<5.0	<5.0	<5.0	<10	<5.0	3,200	<10	<5.0	<5.0	<2,500	<5.0	<5.0	-	-	-	-	-				
09/26/08		6.46	0.00	4.27	120	3,000	<5,000	<1.0	<1.0	<1.0	<1.0	4.8	6,900	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-	-	-				
12/23/08		6.36	0.00	4.37	87	2,800	<5,000	<1.0	<1.0	<1.0	<1.0	4.9	8,200	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-	-	-				
03/09/09		5.31	0.00	5.42	<50	900	<5,000	<1.0	<1.0	<1.0	<1.0	<1.0	55	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-	-	-				
05/28/09				5.77	0.00	4.96	<50	1,600	<5,000	<1.0	<1.0	<1.0	<1.0	2.1	580	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	0.19					
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			

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	07/11/95		8.12	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	<2,000	-	-	<20	<20	<20	<20	9,600	-	-	-	-	-	-	-	-	-	-	
	12/13/02			7.87	0.00	0.25	5,600	-	-	<50	<50	<50	<50	8,600	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used
	02/19/03			4.84	0.00	3.28	<10,000	-	-	<100	<100	<100	<100	8,000	-	-	-	-	-	-	-	-	-	-	
	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	-	-	-	
	11/20/03			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	<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

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	09/19/06		10.58	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	-	-			
	02/29/08			6.44	0.00	4.14	<5,000	-	-	<50	<50	<50	<100	<50	32,000	<100	<50	<50	<25,000	<50	<50	-	-			
	05/23/08			6.01	0.00	4.57	<5,000	-	-	<50	<50	<50	<100	<50	42,000	<100	<50	<50	<25,000	<50	<50	-	-			
	09/26/08			7.37	0.00	3.21	370	-	-	<1.0	<1.0	<1.0	<1.0	14	39,000	<1.0	2.8	<1.0	<250	<1.0	<1.0	-	-			
	12/23/08			6.04	0.00	4.54	270	-	-	<1.0	<1.0	<1.0	<1.0	15	37,000	<1.0	3.2	<1.0	<250	<1.0	<1.0	-	-			
	03/09/09			5.30	0.00	5.28	140	-	-	<1.0	<1.0	<1.0	<1.0	18	27,000	<1.0	3.5	<1.0	<250	<1.0	<1.0	-	-			
	05/28/09			7.06	0.00	3.52	330	-	-	<1.0	<1.0	<1.0	<1.0	21	36,000	<1.0	2.9	1.1	<250	<1.0	<1.0	<1.0	-	0.41		
	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	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
09/06/00		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	09/15/00	INA	7.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used	
	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	<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	<1,300	<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	<1,300	<2.5	<2.5	-	-	-	-		
	02/29/08		5.33	0.00	4.85	5,100	-	-	1.9	1.8	0.93	4.2	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	-		
	05/23/08		5.38	0.00	4.80	4,600	-	-	<2.5	<2.5	<2.5	<5.0	3.9	<25	<5.0	<2.5	<2.5	<1,200	<2.5	<2.5	-	-	-	-		
	09/26/08		5.26	0.00	4.92	3,400	-	-	1.5	<1.0	<1.0	2.2	2.8	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-	-		
	12/23/08		5.04	0.00	5.14	3,300	-	-	2.7	1.1	<1.0	3.4	1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-	-		
	03/09/09		4.79	0.00	5.39	4,300	-	-	1.9	1.8	<1.0	4.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-	-		
	05/28/09		5.21	0.00	4.97	4,400	-	-	<1.0	<1.0	<1.0	1.8	<1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	2.15	-		
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	

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	11/02/95		8.52	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	08/11/97			6.48	0.00	2.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	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	NS		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	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used
	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		11.01	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	<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	-	-	-	

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	12/01/06		11.01	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	-	-				
	02/29/08			5.80	0.00	5.21	<50	-	-	<0.50	<0.50	<0.50	<1.0	7.1	46	<1.0	<0.50	0.92	<250	<0.50	<0.50	-	-				
	05/23/08			6.53	0.00	4.48	<50	-	-	<0.50	<0.50	<0.50	<1.0	8.4	53	<1.0	<0.50	0.95	<250	<0.50	<0.50	-	-				
	09/26/08			6.86	0.00	4.15	<50	-	-	<1.0	<1.0	<1.0	<1.0	5.1	56	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-				
	12/23/08			6.90	0.00	4.11	<50	-	-	<1.0	<1.0	<1.0	<1.0	5.3	54	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-				
	03/09/09			6.00	0.00	5.01	<50	-	-	<1.0	<1.0	<1.0	<1.0	3.5	62	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-				
	05/28/09			6.19	0.00	4.82	<50	-	-	<1.0	<1.0	<1.0	<1.0	6.6	55	<1.0	<1.0	<1.0	<250	<1.0	<1.0	<1.0	-	2.77			
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		
	04/13/95			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	-	-	-	-	-	-	-	-	-	-	-	-			

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	12/28/01		7.61	4.53	0.00	3.08	910	-	-	23	<2.5	<2.5	<5.0	856	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used	
	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	-	-	-	-	-	-	-	-	-	-		
	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	-	-	-		
	03/01/07			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	-	-	-		
	02/29/08			5.78	0.00	4.33	<50	-	-	<0.50	<0.50	<0.50	<1.0	6.2	960	<1.0	<0.50	0.73	<250	<0.50	<0.50	-	-	-		
	05/23/08			6.27	0.00	3.84	53	-	-	<0.50	<0.50	<0.50	<1.0	9.6	300	<1.0	<0.50	0.96	<250	<0.50	<0.50	-	-	-		
	09/26/08			6.52	0.00	3.59	<50	-	-	<1.0	<1.0	<1.0	<1.0	7.5	800	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-		
	12/23/08			6.40	0.00	3.71	59	-	-	<1.0	<1.0	<1.0	<1.0	5.7	3,500	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-		
	03/09/09			5.65	0.00	4.46	<50	-	-	<1.0	<1.0	<1.0	<1.0	4.4	1,300	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	-		
	05/28/09			5.91	0.00	4.20	<50	-	-	<1.0	<1.0	<1.0	<1.0	5.7	110	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	1.77	-		
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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	11/04/96		8.60	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	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used
	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	-	-	-	
	08/26/04			4.73	0.00	3.87	<2,500	-	-	<25	<25	<25	<25	170	47,000	<25	<25	<25	-	<25	<25	-	-	-	
	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	-	-	-	Well purged dry
	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	-	-	-	

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	02/29/08		11.08	4.75	0.00	6.33	<1,000	-	-	<10	<10	<10	<20	16	7,500	<20	<10	<10	<5,000	<10	<10	-	-			
	05/23/08			5.01	0.00	6.07	<1,000	-	-	<10	<10	<10	<20	15	4,800	<20	<10	<10	<5,000	<10	<10	-	-			
	09/26/08			5.43	0.00	5.65	190	-	-	<1.0	<1.0	<1.0	<1.0	14	1,800	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-			
	12/23/08			5.25	0.00	5.83	270	-	-	<1.0	<1.0	<1.0	<1.0	10	770	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-			
	03/09/09			4.36	0.00	6.72	210	-	-	<1.0	<1.0	<1.0	<1.0	15	3,300	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-			
	05/28/09			4.98	0.00	6.10	270	-	-	<1.0	<1.0	<1.0	<1.0	6.5	710	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-	2.14		
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			5.42	0.00	2.66	97,000	-	-	16,000	7,700	2,300	18,400	40,000	-	-	-	-	-	-	-	-	-	-	7.0	
	05/17/97	DUP		-	-	-	97,000	-	-	16,000	8,200	2,300	17,300	39,000	-	-	-	-	-	-	-	-	-	-	-	
	08/11/97			5.37	0.00	2.71	71,000	-	-	12,000	340	2,100	4,300	26,000	-	-	-	-	-	-	-	-	-	-	9.1	
	08/11/97	DUP		-	-	-	100,000	-	-	14,000	360	3,200	5,790	27,000	-	-	-	-	-	-	-	-	-	-	-	
	11/17/97			5.62	Sheen	2.46	100,000	-	-	22,000	4,800	3,100	17,900	32,000	-	-	-	-	-	-	-	-	-	-	8.3	
	11/17/97	DUP		-	-	-	100,000	-	-	24,000	5,300	3,500	19,300	35,000	-	-	-	-	-	-	-	-	-	-	-	
	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			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			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	-	-	-	-	-	-	-	-	-	-	-			
09/15/00		4.34	0.00	3.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
12/11/00		4.41	0.00	3.67	110,000	-	-	14,400	768	2,610	6,670	123,000	-	-	-	-	-	-	-	-	-	-	-			
03/29/01	INA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
06/26/01		5.03	0.13	3.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GW Elev. Estimated		
09/19/01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

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 Thicknes s (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	12/28/01		8.08	3.73	0.00	4.35	110,000	-	-	15,000	1,500	2,280	5,530	60,900	-	-	-	-	-	-	-	-	-	-	EPA 8015B/8021B used Past holding time (TBA)
	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	<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	-	-	250	<10	130	110	330	2,400	<20	<10	<10	<2,000	<10	<10	-	-	-	
	06/05/06			3.34	0.00	7.21	8,200	-	-	2,200	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	-	-	-	
	02/29/08			3.41	0.00	7.14	6,800	-	-	700	19	250	98	1,100	2,400	<25	<13	35	<6,300	<13	<13	-	-	-	
	05/23/08			4.53	0.00	6.02	5,300	-	-	390	22	130	68	1,200	6,800	<25	<12	33	<6,200	<12	<12	-	-	-	
	09/26/08			5.07	0.00	5.48	10,000	-	-	94	11	26	35	280	12,000	<1.0	<1.0	6.2	<250	<1.0	<1.0	-	-	-	
	12/23/08			4.04	0.00	6.51	2,600	-	-	420	7.9	110	84	870	1,000	<1.0	<1.0	23	<250	<1.0	<1.0	-	-	-	
	03/09/09			3.45	0.00	7.10	3,400	-	-	45	2.2	51	18	180	610	<1.0	<1.0	4.0	<250	<1.0	<1.0	-	-	-	
	05/28/09			4.17	0.00	6.38	4,400	-	-	420	14	270	170	720	840	<1.0	<1.0	21	<250	<1.0	<1.0	-	0.94	-	
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	-	-	-	Well purged dry
	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	-	-	-	
	02/29/08			8.20	0.00	4.33	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-	-	
	05/23/08			8.49	0.00	4.04	<50	-	-	<0.50	<0.50	<0.50	<1.0	2.2	<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-10	09/26/08		12.53	9.91	0.00	2.62	<50	-	-	<1.0	<1.0	<1.0	<1.0	3.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-		
	12/23/08			8.60	0.00	3.93	<50	-	-	<1.0	<1.0	<1.0	<1.0	2.7	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-		
	03/09/09			7.68	0.00	4.85	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	6.2	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-		
	05/28/09			8.71	0.00	3.82	<50	-	-	<1.0	<1.0	<1.0	<1.0	1.3	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	2.76		
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	-	-		
	12/01/06			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	-	-		
	02/29/08			9.76	0.00	4.79	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-		
	05/23/08			10.51	0.00	4.04	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<1.0	<0.50	<0.50	<250	<0.50	<0.50	-	-		
	09/26/08			10.51	0.00	4.04	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-		
	12/23/08			10.74	0.00	3.81	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-		
	03/09/09			9.50	0.00	5.05	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	-		
05/28/09			10.40	0.00	4.15	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	<1.0	<1.0	-	3.06			
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	-	-	-	-	-	-	-	-	-			

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 Thicknes s (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	
QCTB	11/21/07		-	-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	-	
	02/29/08			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	-	
	05/23/08			-	-	-	<50	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	-	-	-	-	
	09/26/08			-	-	-	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	
	12/23/08			-	-	-	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	
	03/09/09			-	-	-	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	
	05/28/09			-	-	-	<50	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	

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 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; except after 2008 Quarter 3 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
02/29/08	Southwest	0.060
05/23/08	Southwest	0.067
09/26/08	South	0.020
12/23/08	Southwest	0.020
03/09/09	Southwest	0.025
05/28/09	Southwest	0.017

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)
		Average: 0.028

Notes:

Number of monitoring events: 34

- 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

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 (collectively 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 3,400 $\mu\text{g/L}$, 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 THP-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 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 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, down-gradient 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).

Current Consultant Information

Stantec Consulting Corporation (Stantec) acquired SECOR on February 1, 2008. Consequently the SECOR corporate name changed to Stantec. Stantec continues to manage the site referenced above on behalf of Atlantic Richfield Company, a BP Affiliated Company and ConocoPhillips.

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

Stantec's Procedures for Groundwater Monitoring and Sampling, and Equipment Decontamination

Stantec Consulting Corporation

STANDARD PROCEDURE FOR GROUNDWATER SAMPLING

Depth to Groundwater / SPH Thickness Measurements

Prior to purging each of the wells, the depth to groundwater and thickness of SPH, if present, within each well casing is measured to the nearest 0.01 foot using either an electronic 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 SPH, 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 (ml) 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.

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.

Containment and Disposal of Waste Water

Waste water generated during decontamination of equipment and purging is pumped into a Stantec truck-mounted water tank. The purge water is then transferred into 55-gallon, steel, Department of Transportation (DOT)-approved drums that are temporarily stored on-site. The waste water is removed from the site by certified waste contractor, and transported to an approved facility for recycling/disposal.

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.

Attachment C

Quarterly Monitoring Field Data Sheets

SITE VISITATION REPORT

76 (Former BP) Service Station 11126 - 2Q09 M&S Event

me(s) [Signature]

Date: 5/28/09

Time of Arrival Call-In: 0600

Arrival Time: 0600

Departure Time: 1230

Time of Departure Call-In: 1230

Who did you call? Kimber Collins

DRUM INVENTORY

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

METER CALIBRATIONS

pH meter calibration readings 4.01 7.00 DO meter calibrations 0.95
LEL calibration readings _____ ORP calibrations _____

HEALTH AND SAFETY ASSESSMENT

Haz PPE
Traffic
IRP

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES

Arrive at 0600. Reviewed Haz and Work plan.
Opened Well Caps until 0700. Gauged Wells
from 0700 to 0800. Started Sampling
from 0800 to 1200. Stored Water
in one drum located on East Side of
Building. Left Site at 1230.

Stantec Consulting
HYDROLOGIC DATA SHEET

Gauge Date: 5/28/09

Project Name: 76 Former BP 11126

Field Technician: RM

Project Number: 211601178.201.522 / 211402220.200.0160

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						PURGE & SAMPLE 2Q09	SHEEN CONFIRMATION (w/bailer)	COMMENTS
		DTP	DTW	DTB	DIA	ELEV			
MW-1	0743		4.07	¹² 11.58	2.0		Yes		
MW-2	0749		4.90	¹² 11.91	2.0		Yes		
MW-3	0726		5.77	¹² 11.67	2.0		Yes		
MW-4	0736		7.06	¹² 11.03	2.0		Yes		
MW-5	0900		5.71	^{13.5} 12.50	2.0		Yes		
MW-6	0715		6.19	¹⁴ 12.25	2.0		Yes		
MW-7	0721		5.91	¹⁴ 13.56	2.0		Yes		
MW-8	0731		4.98	¹⁴ 13.91	2.0		Yes		
MW-9	0755		4.17	¹⁴ 14.08	4.0		Yes		
MW-10	0708		8.71	²⁰ 17.15	2.0		Yes		
MW-11	0700		10.40	²⁴ 17.00	2.0		Yes		

Stantec Consulting

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.: _____
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 5-28-09 START (2400hr) 935 END (2400hr) 946
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 955
 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) = 11.58 CASING VOLUME (gal) = 1.28
 DEPTH TO WATER (feet) = 4.07 CALCULATED PURGE (gal) = 3.85
 WATER COLUMN HEIGHT (feet) = 7.56 ACTUAL PURGE (gal) = 4.5

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>940</u>	<u>115</u>	<u>19.1</u>	<u>503</u>	<u>7.12</u>	<u>4.6</u>	<u>687.9</u>
	<u>943</u>	<u>310</u>	<u>18.9</u>	<u>484</u>	<u>7.10</u>		<u>976.4</u>
	<u>946</u>	<u>415</u>	<u>18.5</u>	<u>482</u>	<u>7.13</u>		<u>1100</u>

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 4.07 SAMPLE TURBIDITY: 1100

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 -two 1-L non-preserved Amber
 ODOR: yes SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump Bailer (Teflon) *disposable*
 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: well box cracked and broken needs replaced

SIGNATURE: Raymond Moore Page ___ of ___

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

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

DATE GAUGED 5-28-09 START (2400hr) 1117 END (2400hr) 1126
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 1140
 SAMPLE TYPE: Groundwater X Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" X 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) = 11.91 CASING VOLUME (gal) = 1.19
 DEPTH TO WATER (feet) = 4.9 CALCULATED PURGE (gal) = 3.57
 WATER COLUMN HEIGHT (feet) = 7.01 ACTUAL PURGE (gal) = 2.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>1123</u>	<u>1</u>	<u>19.8</u>	<u>552</u>	<u>6.94</u>	<u>0.77</u>	<u>1100</u>
	<u>1126</u>	<u>2</u>	<u>19.2</u>	<u>478</u>	<u>6.91</u>		
		<u>Dry</u>	<u>9+ 2.0 gal.</u>				

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 4.94 SAMPLE TURBIDITY: 1100

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 -two 1-L non-preserved Amber
 ODOR: yes SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump Bailer (disposable 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: _____

SIGNATURE: Raymond Stover Page ____ of ____

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

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

DATE GAUGED 5-28-09 START (2400hr) 920 END (2400hr) 927
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 1025
 SAMPLE TYPE: Groundwater X Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" X 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) = 11.67 CASING VOLUME (gal) = 1.00
 DEPTH TO WATER (feet) = 5.77 CALCULATED PURGE (gal) = 3.00
 WATER COLUMN HEIGHT (feet) = 5.9 ACTUAL PURGE (gal) = 2.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>924</u>	<u>1</u>	<u>19.2</u>	<u>695</u>	<u>7.20</u>	<u>0.19</u>	<u>1100</u>
	<u>927</u>	<u>2</u>	<u>18.5</u>	<u>638</u>	<u>7.16</u>		
		<u>dry at 20 gal.</u>					

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 5.77 SAMPLE TURBIDITY: 987.4

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 -two 1-L non-preserved Amber
 ODOR: yes SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump Bailer (disposable 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: _____

SIGNATURE: Raymond Abate Page ___ of ___

Stantec Consulting
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.: _____
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 5-28-09 START (2400hr) 1005 END (2400hr) 1011
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 1040
 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) = 11.03 CASING VOLUME (gal) = 0.67
 DEPTH TO WATER (feet) = 7.06 CALCULATED PURGE (gal) = 2.07
 WATER COLUMN HEIGHT (feet) = 3.97 ACTUAL PURGE (gal) = 1.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>1009</u>	<u>.5</u>	<u>18.6</u>	<u>961</u>	<u>7.24</u>	<u>.41</u>	<u>287.4</u>
	<u>1011</u>	<u>1.0</u>	<u>18.4</u>	<u>1015</u>	<u>7.46</u>		<u>456.7</u>
		<u>Dry qt 1.0</u>	<u>39.6</u>				

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 7.11 SAMPLE TURBIDITY: 382.1

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 -two 1-L non-preserved Amber
 ODOR: None SAMPLE VESSEL / PRESERVATIVE: **for DRO and one 1-L preserved for TOG.**

PURGING EQUIPMENT

Bladder Pump _____ Bailer (Teflon) *disposable*
 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: _____

SIGNATURE: Raymond Hanks Page ____ of ____

Stantec Consulting
WATER SAMPLE FIELD DATA SHEET

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

DATE GAUGED 5-28-09 START (2400hr) 0905 END (2400hr) 0917
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 0920
 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) = 12.50 CASING VOLUME (gal) = 1.24
 DEPTH TO WATER (feet) = 5.21 CALCULATED PURGE (gal) = 3.72
 WATER COLUMN HEIGHT (feet) = 7.29 ACTUAL PURGE (gal) = 4.60

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>0911</u>	<u>2</u>	<u>71.2</u>	<u>693</u>	<u>7.06</u>	<u>2.15</u>	<u>low</u>
	<u>0914</u>	<u>3</u>	<u>70.9</u>	<u>671</u>	<u>6.95</u>	<u>-</u>	<u>✓</u>
	<u>0917</u>	<u>4</u>	<u>70.8</u>	<u>656</u>	<u>6.96</u>	<u>-</u>	<u>✓</u>

SAMPLE DEPTH TO WATER: 5.26 SAMPLE INFORMATION SAMPLE TURBIDITY: low

80% RECHARGE: YES ___ NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: NO **3 preserved voas; MW-3 -two 1-L non-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: _____

SIGNATURE: [Signature] [Signature] Page ___ of ___

Stantec Consulting

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.: MW6
 LOCATION: 1700 Powell St., Emeryville CA QA SAMPLES: _____

DATE GAUGED 5-28-09 START (2400hr) 0930 END (2400hr) 0939
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 0942
 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) = 12.25 CASING VOLUME (gal) = 1103
 DEPTH TO WATER (feet) = 6.19 CALCULATED PURGE (gal) = 3.09
 WATER COLUMN HEIGHT (feet) = 6.06 ACTUAL PURGE (gal) = 3.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>0933</u>	<u>1</u>	<u>70.4</u>	<u>617 um</u>	<u>7.15</u>	<u>2.77</u>	<u>low</u>
	<u>0936</u>	<u>2</u>	<u>70.7</u>	<u>6120 um</u>	<u>7.11</u>	<u>-</u>	<u>↓</u>
	<u>0939</u>	<u>3</u>	<u>70.7</u>	<u>6021 um</u>	<u>7.09</u>	<u>-</u>	<u>↓</u>

SAMPLE DEPTH TO WATER: 6.21 SAMPLE INFORMATION SAMPLE TURBIDITY: low

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: NO **3 preserved voas; MW-3 -two 1-L non-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: _____
Hard back well

SIGNATURE: _____ Page ___ of ___

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

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

DATE GAUGED 5-28-09 START (2400hr) 0949 END (2400hr) 1001
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 1004
 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) = 13.56 CASING VOLUME (gal) = 1.30
 DEPTH TO WATER (feet) = 5.91 CALCULATED PURGE (gal) = 3.90
 WATER COLUMN HEIGHT (feet) = 7.65 ACTUAL PURGE (gal) = 4.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>0955</u>	<u>2</u>	<u>72.1</u>	<u>1765</u>	<u>6.91</u>	<u>1.77</u>	<u>low</u>
	<u>0958</u>	<u>3</u>	<u>72.1</u>	<u>1791</u>	<u>6.93</u>		
	<u>1001</u>	<u>4</u>	<u>72.0</u>	<u>1801</u>	<u>6.95</u>		<u>✓</u>

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 5.96 SAMPLE TURBIDITY: low

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 -two 1-L non-preserved Amber & TOG additionally for MW-3 only**

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: _____

SIGNATURE: _____ Page ___ of ___

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

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

DATE GAUGED 5-28-09 START (2400hr) 1010 END (2400hr) 1023
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 1025
 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) = 13.91 CASING VOLUME (gal) = 1.52
 DEPTH TO WATER (feet) = 4.98 CALCULATED PURGE (gal) = 4.55
 WATER COLUMN HEIGHT (feet) = 8.93 ACTUAL PURGE (gal) = 5.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>1017</u>	<u>3</u>	<u>21.3</u>	<u>1685</u>	<u>6.86</u>	<u>7.14</u>	<u>low</u>
	<u>1020</u>	<u>4</u>	<u>21.6</u>	<u>1680</u>	<u>6.85</u>		
	<u>1023</u>	<u>5</u>	<u>21.7</u>	<u>1677</u>	<u>6.84</u>		<u>↓</u>

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 5.01 SAMPLE TURBIDITY: low

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 -two 1-L non-preserved Amber 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: _____

SIGNATURE: [Signature] Page ___ of ___

Stantec Consulting
WATER SAMPLE FIELD DATA SHEET

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

DATE GAUGED 5-28-09 START (2400hr) 1035 END (2400hr) 1038
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 1105
 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) = 14.08 CASING VOLUME (gal) = 6.68
 DEPTH TO WATER (feet) = 4.17 CALCULATED PURGE (gal) = 19.91
 WATER COLUMN HEIGHT (feet) = 9.91 ACTUAL PURGE (gal) = 7.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5/28/09</u>	<u>1038</u>	<u>7</u>	<u>19.5</u>	<u>533</u>	<u>6.72</u>	<u>0.94</u>	<u>low</u>
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

Dry at 7 gallons

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 4.20 SAMPLE TURBIDITY: low

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 -two 1-L non-preserved Amber 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: 14.00

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: _____

SIGNATURE: _____ Page ___ of ___

Stantec Consulting
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 5-28-09 START (2400hr) 0806 END (2400hr) 0821
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 0825
 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) = 17.15 CASING VOLUME (gal) = 1.43
 DEPTH TO WATER (feet) = 8.71 CALCULATED PURGE (gal) = 4.30
 WATER COLUMN HEIGHT (feet) = 8.44 ACTUAL PURGE (gal) = 5.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>0814</u>	<u>3</u>	<u>18.9</u>	<u>2.48ms</u>	<u>7.14</u>	<u>2.76</u>	<u>low</u>
	<u>0818</u>	<u>4</u>	<u>19.0</u>	<u>2.53ms</u>	<u>7.10</u>	<u>-</u>	<u>↓</u>
	<u>0821</u>	<u>5</u>	<u>19.1</u>	<u>2.56ms</u>	<u>7.07</u>	<u>-</u>	<u>↓</u>

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 8.82 SAMPLE TURBIDITY: low

80% RECHARGE: YES NO ANALYSES: **GRO/BTEX/MTBE/Oxygenates/1,2-DCA & EDB; TPH-d & TOG additionally for MW-3 only**
 ODOR: No **3 preserved voas; MW-3 -two 1-L non-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 Bored Well.

SIGNATURE: _____ Page ___ of ___

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

OBJECT #: 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 5-28-09 START (2400hr) 0835 END (2400hr) 0848
 DATE SAMPLED 5-28-09 SAMPLE TIME (2400hr) 0850
 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) = 17.00 CASING VOLUME (gal) = 1.12
 DEPTH TO WATER (feet) = 10.40 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)	DO (Mg/L)	TURBIDITY (NTU)
<u>5-28-09</u>	<u>0842</u>	<u>2</u>	<u>17.8</u>	<u>1211</u>	<u>7.09</u>	<u>3.06</u>	<u>low</u>
	<u>0845</u>	<u>3</u>	<u>17.8</u>	<u>1230</u>	<u>7.10</u>	-	↓
	<u>0848</u>	<u>4</u>	<u>17.7</u>	<u>1246</u>	<u>7.11</u>	-	↓

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 10.49 SAMPLE TURBIDITY: low

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

SIGNATURE: _____ Page ___ of ___

PRE-TASK HAZARD REVIEW					
TASK			EQUIPMENT		
1.	QMS		1.	Sample truck	
2.			2.	Generator	
3.			3.	Grounding pump	
4.			4.	Hand tools	
5.			5.		
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 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 type="checkbox"/> Security	45.	<input checked="" 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 & 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 checked="" 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					
79.	<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 checked="" type="checkbox"/> High Visibility Clothing	84.	<input checked="" type="checkbox"/> Hard Hat
85.	<input type="checkbox"/> Escape Pak	86.	<input checked="" type="checkbox"/> Steel Toe Shoes	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 checked="" type="checkbox"/> Gloves	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"/> Fall Protection	98.	<input type="checkbox"/> Barricade	99.	<input type="checkbox"/> Fire Blanket
100.	<input type="checkbox"/> Upwind Areas Checked	101.	<input type="checkbox"/> Warning Signs	102.	<input type="checkbox"/> Flag Of Area
103.	<input type="checkbox"/> Life Lines	104.	<input type="checkbox"/> Fire Extinguisher at Jobsite	105.	<input type="checkbox"/> Sampling Prohibited
106.	<input type="checkbox"/> Seal Manholes, Sewers, & Catch Basins	107.	<input type="checkbox"/> Communication Method	108.	<input type="checkbox"/> Welding Shields
109.	<input type="checkbox"/> Continuous Monitoring	110.	<input type="checkbox"/> Wet Down Area	111.	<input type="checkbox"/> Ladder Tie Off
112.	<input type="checkbox"/> Tag Lines	113.	<input type="checkbox"/> Active Site Hazard Communication	114.	<input type="checkbox"/> Fence Off Area
115.	<input type="checkbox"/> No Cell Phone	116.	<input checked="" type="checkbox"/> Long Sleeve Shirt	117.	<input type="checkbox"/> No Smoking
118.	<input type="checkbox"/> Other:				
REQUIRED PROCEDURES					
<input type="checkbox"/> Drilling		<input type="checkbox"/> MOC		<input type="checkbox"/> Traffic Control	
<input type="checkbox"/> Hoist / Lifting		<input checked="" type="checkbox"/> Journey Hazard Assessment		<input type="checkbox"/> Ground Disturbance	
<input type="checkbox"/> Hot Work		<input type="checkbox"/> Trenching / Excavation		<input type="checkbox"/> Confined Space	
<input type="checkbox"/> Working at Heights		<input type="checkbox"/> None			
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.	Raymond Prober	2.		3.	JH All
4.		5.		6.	
7.		8.		9.	
10.		11.		12.	
Onsite Manager: (Print Name)			Date: 5-28-09		Location of Site Work:
Site:		Date / Time Issued: 5-28-09 6 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:					

Revision, Date: July 13, 2006

Attachment D

Certified Laboratory Analytical Report, Chain-of-Custody Documentation, and Stantec Laboratory Validation Form

ANALYTICAL RESULTS

Prepared for:

Stantec Consulting Inc.
3017 Kilgore Road
Suite 100
Rancho Cordova CA 95670

916-861-0400

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

June 11, 2009

SAMPLE GROUP

The sample group for this submittal is 1146973. Samples arrived at the laboratory on Saturday, May 30, 2009. The PO# for this group is 211601178.201.522 and the release number is SUPPLE.

<u>Client Description</u>	<u>Lancaster Labs Number</u>
MW-1 NA Water	5686598
MW-2 NA Water	5686599
MW-3 NA Water	5686600
MW-4 NA Water	5686601
MW-5 NA Water	5686602
MW-6 NA Water	5686603
MW-7 NA Water	5686604
MW-8 NA Water	5686605
MW-9 NA Water	5686606
MW-10 NA Water	5686607
MW-11 NA Water	5686608
QCTB NA Water	5686609

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Chronicle.

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COPY TO

Attn: BPCPNCal

ELECTRONIC Stantec Consulting Inc.
COPY TO

Attn: bpdata

Questions? Contact your Client Services Representative
Angela M Miller at (717) 656-2300

Respectfully Submitted,



Robin C. Runkle
Senior Specialist

Lancaster Laboratories Sample No. WW 5686598
**Group No. 1146973
CA**
**MW-1 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-1**

Collected: 05/28/2009 09:55 by RM

Account Number: 12607

 Submitted: 05/30/2009 10:40
 Reported: 06/11/2009 at 17:34
 Discard: 07/12/2009

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 3017 Kilgore Road
 Suite 100
 Rancho Cordova CA 95670

PSE01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	1.3	1.0	1
01594	Benzene	71-43-2	64	1.0	1
01594	t-Butyl alcohol	75-65-0	1,800	50	10
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	3.4	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	48	1.0	1
01594	Toluene	108-88-3	1.5	1.0	1
01594	Xylene (Total)	1330-20-7	9.4	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	880	50	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 14:41	Ginelle L Feister	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091611AA	06/10/2009 17:59	Ginelle L Feister	10
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 14:41	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 14:41	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z091611AA	06/10/2009 17:59	Ginelle L Feister	10

Lancaster Laboratories Sample No. WW 5686599
**Group No. 1146973
CA**
**MW-2 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-2**

Collected: 05/28/2009 11:40 by RM

Account Number: 12607

 Submitted: 05/30/2009 10:40
 Reported: 06/11/2009 at 17:34
 Discard: 07/12/2009

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PSE02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	110	10	10
01594	Benzene	71-43-2	4,700	100	100
01594	t-Butyl alcohol	75-65-0	2,000	50	10
01594	1,2-Dibromoethane	106-93-4	< 10	10	10
01594	1,2-Dichloroethane	107-06-2	< 10	10	10
01594	Ethanol	64-17-5	< 2,500	2,500	10
01594	Ethyl t-butyl ether	637-92-3	< 10	10	10
01594	Ethylbenzene	100-41-4	3,800	100	100
01594	di-Isopropyl ether	108-20-3	< 10	10	10
01594	Methyl Tertiary Butyl Ether	1634-04-4	2,800	10	10
01594	Toluene	108-88-3	740	10	10
01594	Xylene (Total)	1330-20-7	8,100	100	100
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	55,000	5,000	100

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 15:07	Ginelle L Feister	10
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 15:32	Ginelle L Feister	100
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 15:32	Ginelle L Feister	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 15:07	Ginelle L Feister	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z091601AA	06/09/2009 15:32	Ginelle L Feister	100



Analysis Report

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Lancaster Laboratories Sample No. WW 5686600

Group No. 1146973
CA

MW-3 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-3

Collected: 05/28/2009 10:25 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

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PSE03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	< 1.0	1.0	1
01594	Benzene	71-43-2	< 1.0	1.0	1
01594	t-Butyl alcohol	75-65-0	580	5.0	1
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	< 1.0	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	2.1	1.0	1
01594	Toluene	108-88-3	< 1.0	1.0	1
01594	Xylene (Total)	1330-20-7	< 1.0	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	< 50	50	1
SW-846 8015B	GC Extractable TPH		ug/l	ug/l	
06609	TPH-DRO CA C10-C28	n.a.	1,600	100	1
EPA 1664A	Wet Chemistry		ug/l	ug/l	
08079	HEM (oil & grease)	n.a.	< 5,000	5,000	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 15:57	GINELLE L FEISTER	1
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 15:57	GINELLE L FEISTER	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 15:57	GINELLE L FEISTER	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	091530013A	06/04/2009 02:23	DIANE V DO	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	091530013A	06/03/2009 02:30	ROMAN KUROPATKIN	1
08079	HEM (oil & grease)	EPA 1664A	1	09153807901A	06/02/2009 09:43	YOLUNDER Y BUNCH	1



Analysis Report

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Lancaster Laboratories Sample No. WW 5686601

Group No. 1146973
CA

MW-4 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-4

Collected: 05/28/2009 10:40 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

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PSE04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	1.1	1.0	1
01594	Benzene	71-43-2	< 1.0	1.0	1
01594	t-Butyl alcohol	75-65-0	36,000	1,000	200
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	2.9	1.0	1
01594	Ethylbenzene	100-41-4	< 1.0	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	21	1.0	1
01594	Toluene	108-88-3	< 1.0	1.0	1
01594	Xylene (Total)	1330-20-7	< 1.0	1.0	1

Preservation requirements were not met for the aliquot used to perform the 200 times dilution. The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample used to perform the 200 times dilution was pH = 5.

SW-846 8260B	GC/MS Volatiles GRO	ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	330	50

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 16:22	Ginelle L Feister	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091611AA	06/10/2009 18:24	Ginelle L Feister	200
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 16:22	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 16:22	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z091611AA	06/10/2009 18:24	Ginelle L Feister	200



Analysis Report

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Lancaster Laboratories Sample No. WW 5686602

Group No. 1146973
CA

MW-5 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-5

Collected: 05/28/2009 09:20 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

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PSE05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	< 1.0	1.0	1
01594	Benzene	71-43-2	< 1.0	1.0	1
01594	t-Butyl alcohol	75-65-0	< 5.0	5.0	1
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	< 1.0	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	< 1.0	1.0	1
01594	Toluene	108-88-3	< 1.0	1.0	1
01594	Xylene (Total)	1330-20-7	1.8	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	4,400	500	10

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091613AA	06/10/2009 23:44	Michael A Ziegler	1
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 17:38	Michael A Ziegler	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091613AA	06/10/2009 23:44	Michael A Ziegler	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z091601AA	06/09/2009 17:38	Ginelle L Feister	10



Analysis Report

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Lancaster Laboratories Sample No. WW 5686603

Group No. 1146973
CA

MW-6 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-6

Collected: 05/28/2009 09:42 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

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PSE06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	< 1.0	1.0	1
01594	Benzene	71-43-2	< 1.0	1.0	1
01594	t-Butyl alcohol	75-65-0	55	5.0	1
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	< 1.0	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	6.6	1.0	1
01594	Toluene	108-88-3	< 1.0	1.0	1
01594	Xylene (Total)	1330-20-7	< 1.0	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	< 50	50	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 18:03	Ginelle L Feister	1
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 18:03	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 18:03	Ginelle L Feister	1



Analysis Report

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Lancaster Laboratories Sample No. WW 5686604

Group No. 1146973
CA

MW-7 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-7

Collected: 05/28/2009 10:04 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

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PSE07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	< 1.0	1.0	1
01594	Benzene	71-43-2	< 1.0	1.0	1
01594	t-Butyl alcohol	75-65-0	110	5.0	1
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	< 1.0	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	5.7	1.0	1
01594	Toluene	108-88-3	< 1.0	1.0	1
01594	Xylene (Total)	1330-20-7	< 1.0	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	< 50	50	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 18:28	Ginelle L Feister	1
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 18:28	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 18:28	Ginelle L Feister	1



Analysis Report

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Lancaster Laboratories Sample No. WW 5686605

Group No. 1146973
CA

MW-8 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-8

Collected: 05/28/2009 10:25 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

Stantec Consulting Inc.
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Rancho Cordova CA 95670

PSE08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	< 1.0	1.0	1
01594	Benzene	71-43-2	< 1.0	1.0	1
01594	t-Butyl alcohol	75-65-0	710	5.0	1
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	< 1.0	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	6.5	1.0	1
01594	Toluene	108-88-3	< 1.0	1.0	1
01594	Xylene (Total)	1330-20-7	< 1.0	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	270	50	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 18:53	Ginelle L Feister	1
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 18:53	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 18:53	Ginelle L Feister	1



Analysis Report

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Lancaster Laboratories Sample No. WW 5686606

Group No. 1146973
CA

MW-9 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-9

Collected: 05/28/2009 11:05 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

Stantec Consulting Inc.
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Rancho Cordova CA 95670

PSE09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	21	1.0	1
01594	Benzene	71-43-2	420	10	10
01594	t-Butyl alcohol	75-65-0	840	5.0	1
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	270	10	10
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	720	1.0	1
01594	Toluene	108-88-3	14	1.0	1
01594	Xylene (Total)	1330-20-7	170	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	4,400	500	10

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5	SW-846 8260B	1	Z091601AA	06/09/2009 19:18	Ginelle L Feister	1
	Oxygenates+EDC+EDB+ETOH						
01594	BTEX+5	SW-846 8260B	1	Z091601AA	06/09/2009 19:43	Ginelle L Feister	10
	Oxygenates+EDC+EDB+ETOH						
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 19:43	Ginelle L Feister	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 19:18	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z091601AA	06/09/2009 19:43	Ginelle L Feister	10



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Lancaster Laboratories Sample No. WW 5686607

Group No. 1146973
CA

MW-10 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-10

Collected: 05/28/2009 08:25 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

Stantec Consulting Inc.
3017 Kilgore Road
Suite 100
Rancho Cordova CA 95670

PSE10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	< 1.0	1.0	1
01594	Benzene	71-43-2	< 1.0	1.0	1
01594	t-Butyl alcohol	75-65-0	< 5.0	5.0	1
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	< 1.0	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	1.3	1.0	1
01594	Toluene	108-88-3	< 1.0	1.0	1
01594	Xylene (Total)	1330-20-7	< 1.0	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	< 50	50	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 20:09	Ginelle L Feister	1
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 20:09	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 20:09	Ginelle L Feister	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Lancaster Laboratories Sample No. WW 5686608

Group No. 1146973
CA

MW-11 NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 MW-11

Collected: 05/28/2009 08:50 by RM

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

Stantec Consulting Inc.
3017 Kilgore Road
Suite 100
Rancho Cordova CA 95670

PSE11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
01594	t-Amyl methyl ether	994-05-8	< 1.0	1.0	1
01594	Benzene	71-43-2	< 1.0	1.0	1
01594	t-Butyl alcohol	75-65-0	< 5.0	5.0	1
01594	1,2-Dibromoethane	106-93-4	< 1.0	1.0	1
01594	1,2-Dichloroethane	107-06-2	< 1.0	1.0	1
01594	Ethanol	64-17-5	< 250	250	1
01594	Ethyl t-butyl ether	637-92-3	< 1.0	1.0	1
01594	Ethylbenzene	100-41-4	< 1.0	1.0	1
01594	di-Isopropyl ether	108-20-3	< 1.0	1.0	1
01594	Methyl Tertiary Butyl Ether	1634-04-4	< 1.0	1.0	1
01594	Toluene	108-88-3	< 1.0	1.0	1
01594	Xylene (Total)	1330-20-7	< 1.0	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	< 50	50	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	Z091601AA	06/09/2009 14:16	Ginelle L Feister	1
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091601AA	06/09/2009 14:16	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091601AA	06/09/2009 14:16	Ginelle L Feister	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Lancaster Laboratories Sample No. WW 5686609

Group No. 1146973
CA

QCTB NA Water
CP 11126 SIRC
1700 Powell St-Emeryville T0600100208 QCTB

Collected: 05/28/2009 04:00

Account Number: 12607

Submitted: 05/30/2009 10:40
Reported: 06/11/2009 at 17:34
Discard: 07/12/2009

Stantec Consulting Inc.
3017 Kilgore Road
Suite 100
Rancho Cordova CA 95670

PSETB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	GC/MS Volatiles		ug/l	ug/l	
06054	Benzene	71-43-2	< 1.0	1.0	1
06054	Ethylbenzene	100-41-4	< 1.0	1.0	1
06054	Methyl Tertiary Butyl Ether	1634-04-4	< 1.0	1.0	1
06054	Toluene	108-88-3	< 1.0	1.0	1
06054	Xylene (Total)	1330-20-7	< 1.0	1.0	1
SW-846 8260B	GC/MS Volatiles GRO		ug/l	ug/l	
06184	C6-C12-TPH-GRO	n.a.	< 50	50	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	Z091602AA	06/09/2009 12:47	Ginelle L Feister	1
06184	TPH GRO in water by 8260B	SW-846 8260B	1	Z091602AA	06/09/2009 12:47	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z091602AA	06/09/2009 12:47	Ginelle L Feister	1

Quality Control Summary

 Client Name: Stantec Consulting Inc.
 Reported: 06/11/09 at 05:34 PM

Group Number: 1146973

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: Z091601AA	Sample number(s): 5686598-5686608							
t-Amyl methyl ether	< 1.0	1.0	ug/l	96	97	78-117	1	30
Benzene	< 1.0	1.0	ug/l	85	83	80-116	2	30
t-Butyl alcohol	< 5.0	5.0	ug/l	107	109	74-116	1	30
C6-C12-TPH-GRO	< 50	50.	ug/l	140	141	69-150	1	30
1,2-Dibromoethane	< 1.0	1.0	ug/l	98	98	80-112	0	30
1,2-Dichloroethane	< 1.0	1.0	ug/l	91	92	70-130	0	30
Ethanol	< 250	250.	ug/l	114	86	40-158	28	30
Ethyl t-butyl ether	< 1.0	1.0	ug/l	94	94	75-118	0	30
Ethylbenzene	< 1.0	1.0	ug/l	92	92	80-113	0	30
di-Isopropyl ether	< 1.0	1.0	ug/l	84	84	71-124	1	30
Methyl Tertiary Butyl Ether	< 1.0	1.0	ug/l	89	89	78-117	0	30
Toluene	< 1.0	1.0	ug/l	92	91	80-115	1	30
Xylene (Total)	< 1.0	1.0	ug/l	93	92	81-114	1	30
Batch number: Z091602AA	Sample number(s): 5686609							
Benzene	< 1.0	1.0	ug/l	88		80-116		
C6-C12-TPH-GRO	< 50	50.	ug/l	136	129	69-150	6	30
Ethylbenzene	< 1.0	1.0	ug/l	94		80-113		
Methyl Tertiary Butyl Ether	< 1.0	1.0	ug/l	93		78-117		
Toluene	< 1.0	1.0	ug/l	94		80-115		
Xylene (Total)	< 1.0	1.0	ug/l	95		81-114		
Batch number: Z091611AA	Sample number(s): 5686598, 5686601							
t-Butyl alcohol	< 5.0	5.0	ug/l	107		74-116		
Batch number: Z091613AA	Sample number(s): 5686602							
t-Amyl methyl ether	< 1.0	1.0	ug/l	97		78-117		
Benzene	< 1.0	1.0	ug/l	83		80-116		
t-Butyl alcohol	< 5.0	5.0	ug/l	107		74-116		
1,2-Dibromoethane	< 1.0	1.0	ug/l	97		80-112		
1,2-Dichloroethane	< 1.0	1.0	ug/l	86		70-130		
Ethanol	< 250	250.	ug/l	102		40-158		
Ethyl t-butyl ether	< 1.0	1.0	ug/l	92		75-118		
Ethylbenzene	< 1.0	1.0	ug/l	91		80-113		
di-Isopropyl ether	< 1.0	1.0	ug/l	82		71-124		
Methyl Tertiary Butyl Ether	< 1.0	1.0	ug/l	90		78-117		
Toluene	< 1.0	1.0	ug/l	92		80-115		
Xylene (Total)	< 1.0	1.0	ug/l	92		81-114		
Batch number: 091530013A	Sample number(s): 5686600							
TPH-DRO CA C10-C28	< 100	100.	ug/l	90	89	56-122	1	20
Batch number: 09153807901A	Sample number(s): 5686600							
HEM (oil & grease)	< 5,000	5,000.	ug/l	92	80	78-114	14	16

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

 Client Name: Stantec Consulting Inc.
 Reported: 06/11/09 at 05:34 PM

Group Number: 1146973

Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>BKG</u> <u>MAX</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: Z091601AA	Sample number(s): 5686598-5686608 UNSPK: P686591							
t-Amyl methyl ether	103		75-122					
Benzene	94		80-126					
t-Butyl alcohol	111		67-119					
1,2-Dibromoethane	105		77-116					
1,2-Dichloroethane	97		66-141					
Ethanol	107		37-164					
Ethyl t-butyl ether	101		74-122					
Ethylbenzene	102		77-125					
di-Isopropyl ether	94		70-129					
Methyl Tertiary Butyl Ether	0 (2)		72-126					
Toluene	102		80-125					
Xylene (Total)	101		79-125					
Batch number: Z091602AA	Sample number(s): 5686609 UNSPK: P687639							
Benzene	97	85	80-126	11	30			
Ethylbenzene	100	102	77-125	2	30			
Methyl Tertiary Butyl Ether	96	93	72-126	3	30			
Toluene	101	101	80-125	0	30			
Xylene (Total)	100	102	79-125	2	30			
Batch number: Z091611AA	Sample number(s): 5686598,5686601 UNSPK: P692408							
t-Butyl alcohol	109	112	67-119	2	30			
Batch number: Z091613AA	Sample number(s): 5686602 UNSPK: P692405							
t-Amyl methyl ether	100	98	75-122	3	30			
Benzene	89	88	80-126	2	30			
t-Butyl alcohol	109	106	67-119	3	30			
1,2-Dibromoethane	100	98	77-116	2	30			
1,2-Dichloroethane	90	87	66-141	3	30			
Ethanol	92	100	37-164	8	30			
Ethyl t-butyl ether	94	93	74-122	2	30			
Ethylbenzene	94	94	77-125	1	30			
di-Isopropyl ether	87	85	70-129	2	30			
Methyl Tertiary Butyl Ether	93	91	72-126	2	30			
Toluene	96	95	80-125	0	30			
Xylene (Total)	95	93	79-125	2	30			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX+5 Oxygenates+EDC+EDB+ETOH

Batch number: Z091601AA

Dibromofluoromethane

1,2-Dichloroethane-d4

Toluene-d8

4-Bromofluorobenzene

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

 Client Name: Stantec Consulting Inc.
 Reported: 06/11/09 at 05:34 PM

Group Number: 1146973

Surrogate Quality Control

5686598	84	85	88	86
5686599	81	84	90	87
5686600	86	87	88	84
5686601	85	86	89	85
5686603	85	86	88	83
5686604	84	85	89	83
5686605	85	86	86	82
5686606	83	85	87	85
5686607	85	86	88	82
5686608	86	85	88	84
Blank	84	86	88	83
LCS	84	85	88	87
LCSD	84	83	89	87
MS	83	85	88	86

 Limits: 80-116 77-113 80-113 78-113

 Analysis Name: BTEX+MTBE by 8260B
 Batch number: Z091602AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5686609	89	87	91	85
Blank	87	86	93	86
LCS	87	87	92	90
MS	87	88	93	89
MSD	88	88	93	89

 Limits: 80-116 77-113 80-113 78-113

 Analysis Name: 8260 Master Scan (water)
 Batch number: Z091611AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
Blank	84	86	88	81
LCS	83	86	88	85
MS	84	86	87	85
MSD	84	87	86	83

 Limits: 80-116 77-113 80-113 78-113

 Analysis Name: BTEX+5 Oxygenates+EDC+EDB+ETOH
 Batch number: Z091613AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5686602	86	85	85	87
Blank	85	84	87	82
LCS	85	86	87	83
MS	85	88	86	84
MSD	84	87	87	84

 Limits: 80-116 77-113 80-113 78-113

 Analysis Name: TPH-DRO CA C10-C28
 Batch number: 091530013A
 Orthoterphenyl

5686600	91
Blank	81

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Stantec Consulting Inc.
Reported: 06/11/09 at 05:34 PM

Group Number: 1146973

Surrogate Quality Control

LCS	95
LCSD	96

Limits: 59-131

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Project Name: 11126 - Emeryville, CA
LLI Group #: 1146973

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Chronicle section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**01594: BTEX+5 Oxygenates+EDC+EDB+ETOH**

Batch #: Z091601AA (Sample number(s): 5686598-5686608 UNSPK: P686591)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Methyl Tertiary Butyl Ether

Sample #s: 5686601

Preservation requirements were not met for the aliquot used to perform the 200 times dilution. The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample used to perform the 200 times dilution was pH = 5.



052979-04 1452
Laboratory Management Program LAMP Chain of Custody Record

BP/ARC Project Name: 76 (Former BP) Service Station No. 11126
 BP/ARC Facility No: 11126

Req Due Date (mm/dd/yyyy): _____ Rush TAT: Yes ___ No ___
 Lab Work Order Number: _____

Lab Name: Lancaster Laboratories	BP/ARC Facility Address: 1700 Powell Street	Consultant/Contractor: Stantec Consulting Corp.
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601	City, State, ZIP Code: Emeryville, CA	Consultant/Contractor Project No: 211601178.201.522
Lab PM: Megan Moeller	Lead Regulatory Agency: SCCDEH	Address: 3017 Kilgore Rd. Ste. 100, Rancho Cordova, CA 95670
Lab Phone: 717-856-2300 ext 1246	California Global ID No.: T0600100208	Consultant/Contractor PM: Catherine Francini/Brad Shelton
Lab Shipping Acct: 1077-8526-4	Enfos Proposal No:	Phone: 916-861-0400 Ext. 320/329
Lab Bottle Order No:	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___	Email EDD To: BPCPNCal@stantec.com, bpdata@stantec.com
Other Info: CP PO# 211402220.200.1340	Stage: _____ Activity: _____	Invoice To: BP/ARC ___ Contractor <u>X</u>

BP/ARC EBM: Paul Supple				Matrix		No. Containers / Preservative						Requested Analyses								Report Type & QC Level						
EBM Phone: 925-299-8891				Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO/BTEX by EPA 8260B	6 Oxygenates by EPA 8260B	1,2-DCA, EDB by EPA 8260B	TPHd EPA 8015M	Total Oil and Grease (EPA 1664)	GRO/BTEX/MTBE by EPA 8260B							Standard <u>X</u>	Full Data Package ___
EBM Email: Paul.supple@bp.com																										
Lab No.	Sample Description	Date	Time	Oct#12607 Cp#1146973 Sample # 5686598-609 Comments Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.																						
MW-1		5/28/09	0955	X			3					X	X	X												
MW-2			1140	X			3					X	X	X												
MW-3			1025	X		7	X					X	X	X	X	X										
MW-4			1040	X			3					X	X	X												
MW-5			0920	X			3					X	X	X												
MW-6			0942	X			3					X	X	X												
MW-7			1004	X			3					X	X	X												
MW-8			1025	X			3					X	X	X												
MW-9			1105	X			3					X	X	X												
MW-10			0825	X			3					X	X	X												

Sampler's Name: <u>Richard Monahan</u>	Relinquished By / Affiliation: _____	Date: <u>5/28/09</u>	Time: <u>1700</u>	Accepted By / Affiliation: _____	Date: <u>5/29/09</u>	Time: <u>830</u>
Sampler's Company: <u>Stantec</u>	_____	_____	_____	_____	_____	_____
Shipment Method: _____	Ship Date: _____	_____	_____	_____	_____	_____
Shipment Tracking No: _____	_____	_____	_____	_____	_____	_____

Special Instructions: Bill costs to Stantec. EDF must be in BP format. COC for quarterly monitoring and sampling.

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 66-67 °F | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Lancaster Laboratories Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	(diet) calories	lb.	pound(s)
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	l	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib >5 um/ml	fibers greater than 5 microns in length per ml
<	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY – In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions of Lancaster Laboratories and we hereby object to any conflicting terms contained in any acceptance or order submitted by client.

Is Data Valid? (circle)

YES
NO

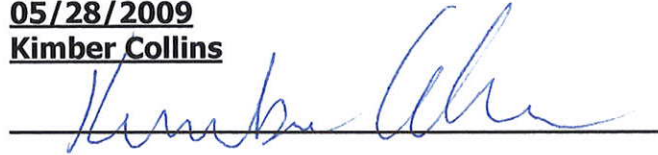
Preservation Temperature
(If Known)

1.6-1.7 (°C)

Stantec Lab Validation Form

Project/Client: BP (Former 76) Service Station No. 11126 / BP-CP
Project No.: 211601178.201 and 211402220.200
Lab Work Order No.: 1146973
Date of Validation: 06/12/2009
Date of Analysis: 06/02/2009 – 06/10/2009
Date of Sampling: 05/28/2009
Completed By: Kimber Collins

Signature:



Circle/Highlight
Yes or No

1. Was the analysis the one requested?
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?
5. Were Laboratory blanks performed, if so, were they below non-detect?
6. Are the units correct? (i.e., soil samples in mg/kg or µg/g, water samples mg/L, µg/L, and air samples in volume mg/m³, etc.)
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)?
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?
11. Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)?

<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No
<input type="radio"/> Yes	<input type="radio"/> No

If any answer is no, explain why and what corrective action was taken:

In regards to benzene, toluene, ethylbenzene, and xylenes, preservation requirements were not met for sample #5686601 (MW-4). The vial submitted for volatile analysis did not have a pH of <2. The pH of the sample was pH=5.

The MS from Batch z091601AA had a percent recovery (%REC) value that was above the acceptance limits for Methyl tertiary Butyl Ether (MTBE); however, the LCS and LCSD from the same batch had a %REC value that was within the acceptance limits, thus not affecting the accuracy of the data

Attachment E
Waste Manifest Documentation

NON-HAZARDOUS WASTE DATA FORM

GENERATING SITE:

EPA I.D. NO.

CAL000035352

NAME BP WEST COAST PRODUCTS, LLC

FORMER ARCO 11128

ADDRESS P.O. BOX 80249

1700 POWELL STREET PROFILE NO.

CITY STATE ZIP RANCHO SANTA MARGARITA, CA 92688 EMERYVILLE, CA 94808

PHONE NO (949) 480 5200

CONTAINERS: No 1

VOLUME 55 GALLONS

WEIGHT

TYPE:

TANK TRUCK

DUMP TRUCK

DRUMS

CARTONS

OTHER

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS WELL FURGING / DECON WATER

COMPONENTS OF WASTE PPM %

1 WATER 99-100%

2 TFH <1%

3

4

BESI: 170034

PROPERTIES: pH 7-10 SOLID LIQUID SLUDGE SLURRY OTHER

HANDLING INSTRUCTIONS: 24-HOUR EMERGENCY PHONE: 800-424-9300

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Larry Moothart of BESI on behalf of generator

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

[Signature] 7/8/09

TO BE COMPLETED BY GENERATOR

TRANSPORTER

NAME BELSHIRE

NIETO & SONS

EPA I.D. NO.

ADDRESS 25971 TOWNE CENTRE DRIVE

1281 BREA CANYON ROAD

SERVICE ORDER NO.

CITY STATE ZIP FOOTHILL RANCH, CA 92610

BREA, CA 92821

PICK UP DATE

7/8/09

PHONE NO (949) 480-5200

(714) 990-8955

TRUCK, UNIT, I.D. NO. 240-354

GILBERT GARCIA Millo G

DATE

7/10/09

TSD FACILITY

NAME DEMENNO KERDOON

EPA I.D. NO.

ADDRESS 2000 N. ALAMEDA ST.

DISPOSAL METHOD

LANDFILL OTHER

CITY STATE ZIP COMPTON, CA 90222

PHONE NO 310-537-7100

11126

510 521 565

JOSE RAMOS

DATE

7/13/09

GEN	OLD/NEW	L	A	TONS
TRANS		<u>43</u>	<u>B</u>	<u>with Steve of Nieto + Sons on 7/17/09</u>
C/O		RT/CD	HWDF	NONE
				DISCREPANCY

Attachment F

**Regulatory Correspondences Dated April 2, 2009
and July 10, 2009**

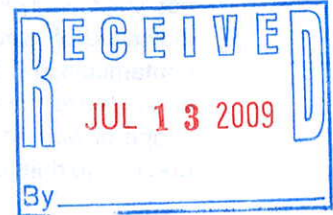


ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

July 10, 2009

Paul Supple (*Sent via E-mail to: paul.supple@bp.com*)
Atlantic Richfield Company
(A BP Affiliated Company)
P.O. Box 1257
San Ramon, CA 94583

Shelby Lathrop
ConocoPhillips
76 Broadway
Sacramento, CA 95818



Subject: Fuel Leak Case No. RO0000066 and GeoTracker Global ID T0600100208, BP #11126,
1700 Powell Street, Emeryville, CA 94608

Dear Mr. Supple and Ms. Lathrop:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted document entitled, "Work Plan for Additional Assessment and Extension Request," dated June 1, 2009, which was prepared by Stantec Consulting Corporation for the subject site. In response to ACEH's April 2, 2009 correspondence, Stantec has proposed installation of one off-site groundwater monitoring well to define the extent of the groundwater contaminant plume and three hand-auger borings to characterize the source area.

ACEH is concerned that the proposed scope of work may not adequately characterize the off-site groundwater contaminant plume west of the subject site towards the Denny's property, as stated in our April 2, 2009 correspondence. Therefore, ACEH requests that you address the following technical comments described below and send us a work plan addendum.

TECHNICAL COMMENTS

1. **Soil and Groundwater Characterization** – Stantec has proposed to install a groundwater monitoring well (MW-12) located across the street and southwest of the subject site. However, as stated in our April 2, 2009 correspondence, based on groundwater elevation contours presented in Stantec's January 23, 2009, "Quarterly Monitoring Progress Report Fourth Quarter 2008," it would appear that there may be at least two different gradient directions present at the site. The proposed groundwater monitoring well MW-12 appears to provide plume characterization southwest of the site, however, the groundwater contaminant plume west of the subject site remains uncharacterized. Since the groundwater contaminant plume may be migrating off-site and impacting an adjacent property, plume delineation is

required. Please propose a scope of work to address the above-mentioned concerns and submit a work plan addendum due by the date specified below.

2. **Contaminant Source Area Characterization** – To characterize the contaminant source area, Stantec proposes to install three hand auger borings to a depth of six feet or groundwater, whichever is encountered first. ACEH is concerned that vertical extent of soil contamination in the source area may not be adequately characterized if the borings terminate at six feet or first encountered groundwater. Although saturated soil sample may not yield analytical results that are indicative of soil impact and are typically considered indicative of groundwater conditions, the samples should aid in assessing residual source contamination. Therefore, a progression of soil samples may be necessary to adequately characterize the vertical extent of soil contamination in the source area. Please propose a scope of work to address the above-mentioned concerns and submit a work plan addendum due by the date specified below.

3. **Preferential Pathway Study** – Based on a review of the case file, it does not appear that a preferential pathway evaluation has been performed at the site. Depth to groundwater at the site has ranged between approximately 4 to 10 feet below the ground surface (bgs). Since groundwater is relatively shallow at the site, a preferential pathway evaluation appears prudent. The purpose of the preferential pathway study is to locate potential migration pathways and conduits and determine the probability of the NAPL and/or plume encountering preferential pathways and conduits that could spread contamination. We request that you perform a preferential pathway study that details the potential migration pathways and potential conduits (wells, utilities, pipelines, etc.) for vertical and lateral migration that may be present in the vicinity of the site.

Discuss your analysis and interpretation of the results of the preferential pathway study (including the well survey and utility survey requested below) and report your results in the next quarterly groundwater monitoring report (Second Quarter 2008) requested below. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b).

a. Utility Survey

An evaluation of all utility lines and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site and plume area(s) is required as part of your study. Please include maps and cross-sections illustrating the location and depth of all utility lines and trenches within and near the site and plume areas(s) as part of your study.

b. Well Survey

The preferential pathway study shall include a well survey of all wells (monitoring and production wells: active, inactive, standby, decommissioned (sealed with concrete), abandoned (improperly decommissioned or lost); and dewatering, drainage, and cathodic protection wells) within a ¼ mile radius of the subject site.

Mr. Supple and Ms. Lathrop
RO0000066
July 10, 2009, Page 3

Please include the results of the well survey in the work plan addendum due by the date specified below.

NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule and complete the fieldwork activities by the date specified below and provide ACEH with at least three (3) business days notification prior to conducting the fieldwork.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- **August 28, 2009** – Soil and Water Investigation Work Plan Addendum with Preferential Pathway Evaluation
- **Due within 30 Days of Sampling** – Semi-annual Monitoring Report (3rd Quarter 2009)
- **Due within 30 Days of Sampling** – Semi-annual Monitoring Report (1st Quarter 2010)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml).

Mr. Supple and Ms. Lathrop
RO0000066
July 10, 2009, Page 4

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND


Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Sincerely,



Digitally signed by Paresh Khatri
DN: cn=Paresh Khatri, o=Alameda
County Environmental Health,
ou=Local Oversight Program,
email=Paresh.Khatri@acgov.org, c=US
Date: 2009.07.10 09:27:19 -07'00'

Paresh C. Khatri
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

Mr. Supple and Ms. Lathrop
RO0000066
July 10, 2009, Page 5

cc: Brad Shelton, Stantec Consulting Corporation, 3017 Kilgore Road, Suite 100, Rancho Cordova,
CA 95670
Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Paresh Khatri, ACEH (*Sent via E-mail to: paresh.khatri@acgov.org*)
GeoTracker
File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	ISSUE DATE: July 5, 2005
	REVISION DATE: March 27, 2009
	PREVIOUS REVISIONS: December 16, 2005, October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.** (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org
 - Or
 - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload.** (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.