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Ms. Dilan Roe
Alameda County Environmental Health
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Alameda, California 94502

ARCADIS U.S., Inc.
100 Montgomery Street
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San Francisco
California 94104
Tel 415 374 2744
Fax 415 374 2745
www.arcadis-us.com

Subject:

ENVIRONMENT

**Third Quarter and Fourth Quarter 2012
Semi-Annual Groundwater Monitoring Report**
Former BP Station #11126,
1700 Powell Street, Emeryville, California
Regulatory Site No: RO0000066

Date:
February 20, 2013

Dear Ms. Roe:

Contact:
Hollis Phillips

ARCADIS U.S., Inc. (ARCADIS) has prepared this Semi-Annual Groundwater Monitoring Report on behalf of Atlantic Richfield Company (ARCO), a BP affiliated company, for the former ARCO service station listed below.

Phone:
415.432.6903

<u>BP-ARCO Facility No.</u>	<u>ACEH Site No.</u>	<u>Location</u>
11126	RO0000066	1700 Powell Street Emeryville, California

Email:
hollis.phillips@arcadis-us.com

I declare, 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. If you have any questions or comments regarding the content of this report, please contact Jamey Peterson by telephone at 707.776.0865 x 27 or by e-mail at jamey.peterson@arcadis-us.com or Hollis Phillips by telephone at 415.432.6903 or by e-mail at hollis.phillips@arcadis-us.com.

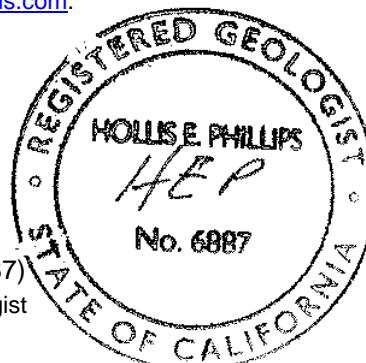
Our ref:
GP09BPNA.C044.N0000

Sincerely,

ARCADIS U.S., Inc.

Jamey Peterson
Staff Geologist

Hollis E. Phillips, P.G. (No. 6887)
Project Manager/ Senior Geologist



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Imagine the result

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Former BP Station #11126,
1700 Powell Street, Emeryville, California
Regulatory Site No: RO0000066

ENVIRONMENT

Dear Ms. Roe:

Date:
February 20, 2013

ARCADIS U.S., Inc. (ARCADIS) has prepared this *Third Quarter and Fourth Quarter 2012 Semi-Annual Groundwater Monitoring Report* to document the results of groundwater monitoring and sampling and remediation system performance for the Former BP Station #11126 located in Emeryville, Alameda County, California (the Site; Figure 1).

Contact:
Hollis Phillips

Phone:
415.432.6903

Email:
hollis.phillips@arcadis-us.com

Our ref:
GP09BPNA.C044.N0000

1. Summary

A summary of the work performed at the Site during this reporting period and the proposed work for the next reporting period is provided below.

Work Performed – Reporting Period (July to December 2012)

- Conducted groundwater monitoring/sampling for Fourth Quarter on December 7, 2012.
- Prepared and submitted the *Second Quarter 2012 Monitoring Report*, dated July 27, 2012.

Work Proposed – Reporting Period (January to June 2013)

- Submit this *Third Quarter and Fourth Quarter 2012 Semi-Annual Groundwater Monitoring Report*, contained herein.
- Groundwater monitoring/sampling activities are scheduled to be conducted during Second Quarter 2013.

2. Background

The Site is an active 76-branded gasoline station. Historic documents indicate that the three underground storage tanks (USTs) currently present at the Site were installed in the late 1980s. Site features include a station building and two dispenser islands with three dispensers each, for a total of six dispensers. The majority of the Site surface is paved with concrete and asphalt.

Land use in the area of the Site is largely commercial. The Site is bound by Powell Street to the south and Christie Avenue to the east. The Site is approximately 350 feet east of Interstate 80/580. A Denny's restaurant is located adjacent to the west of the Site.

3. Groundwater Monitoring/Sampling Activities and Results

Groundwater monitoring associated with the Site is conducted on a semi-annual frequency during the second and fourth quarters of each year. Fourth Quarter 2012 groundwater monitoring was conducted on December 7, 2012 by Broadbent and Associates, Inc. (BAI) personnel. BAI personnel measured depth to water in MW-1 through MW-11. Depth to water measurements ranged from 3.30 feet (MW-1) to 8.85 feet (MW-11).

Well construction details are summarized in Table 1. Current and historical groundwater monitoring and analytical data are summarized in Table 2, and fourth quarter 2012 data is graphically presented on Figures 3 and 4. A rose diagram illustrating groundwater flow direction is provided as Figure 5. A site historical summary is included as Appendix A. The groundwater sampling data package and laboratory analytical reports for the fourth quarter 2012 sampling event are included in Appendices B and C, respectively.

Groundwater samples were collected on December 7, 2012 from wells MW-1 through MW-9, consistent with the current monitoring schedule. No irregularities were reported during sampling. Samples were submitted to TestAmerica Laboratories, Inc. (TestAmerica), of Pleasanton, California, a California Department of Public Health certified analytical laboratory, for analysis of the following analytes:

- Total petroleum hydrocarbons as gasoline range organics (GRO) (C6-C12) using United States Environmental Protection Agency (USEPA) Test Method 8260B Modified;

- Fuel additives methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), and tertiary amyl methyl ether (TAME) using USEPA Method 8260B.

Monitoring wells MW-3, MW-4, MW-6 and MW-8 were additionally sampled for the following:

- Total petroleum hydrocarbons as diesel range organics (DRO) (C10-C28) using USEPA Test Method 8015B Modified;

Monitoring wells MW-1, MW-2, MW-5, MW-7, and MW-9 were additionally sampled for the following:

- Benzene, toluene, ethylbenzene and xylenes (BTEX compounds) using USEPA Method 8260B.

MW-2 was additionally sampled for additional parameters:

- Di-isopropyl ether (DIPE) and ethyl tertiary butyl ether (ETBE).

4. Discussion/Conclusions

- Groundwater flow direction during the recent semi-annual monitoring event was to the southwest at an approximate gradient of 0.01 ft/ft. Historical data indicate the groundwater flow direction is predominately toward the southwest as shown on Figure 5.
- GRO was detected in five of the nine wells sampled with concentrations ranging from 210 micrograms per liter ($\mu\text{g/L}$) (MW-8) to 10,000 $\mu\text{g/L}$ (MW-2). GRO concentrations were below analytical detection limits at four monitoring wells sampled during this reporting period.
- DRO was detected in all four of the wells sampled with concentrations ranging from 110 $\mu\text{g/L}$ (MW-3) to 800 $\mu\text{g/L}$ (MW-8).
- Benzene was detected in four of the five wells sampled with concentrations ranging from 2.9 $\mu\text{g/L}$ (MW-5) to 2,600 $\mu\text{g/L}$ (MW-2). Benzene concentrations were below analytical detection limits at one monitoring well sampled during this reporting period (MW-7).

- Toluene was detected in four of five wells sampled with concentrations ranging from 0.79 µg/L (MW-5) to 31 µg/L (MW-2). Toluene concentrations were below analytical detection limits in one monitoring well sampled during this reporting period (MW-7).
- Ethylbenzene was detected in three of five wells sampled with concentrations ranging from 0.89 µg/L (MW-5) to 350 µg/L (MW-2). Ethylbenzene concentrations were below analytical detection limits in two monitoring wells sampled during this reporting period.
- Xylenes were detected in four of five wells sampled with concentrations ranging from 2.9 µg/L (MW-5) to 72 µg/L (MW-2). Xylene concentrations were below analytical detection limits in one monitoring well sampled during this reporting period (MW-7).
- MTBE was detected in eight of the nine wells sampled with concentrations ranging from 1.2 µg/L (MW-8) to 1,300 µg/L (MW-2). MTBE concentrations were below analytical detection limits in one monitoring well sampled during this reporting period (MW-3).
- TBA was detected in all nine wells sampled with concentrations ranging from 20 µg/L (MW-3) to 18,000 µg/L (MW-4).
- TAME was detected in three of nine wells sampled with concentrations ranging from 0.81 µg/L (MW-1) to 51 µg/L (MW-2). TAME concentrations were below analytical detection limits in six monitoring wells sampled during this reporting period.
- DIPE and ETBE were not detected above analytical detection limit in MW-2.

5. Recommendations

Based on the observed groundwater concentrations, ARCADIS recommends continued groundwater monitoring on a semi-annual basis.

If you have any questions or comments regarding the contents of this report, please contact Jamey Peterson by telephone (707.776.0865 ext. 27) or by e-mail (jamey.peterson@arcadis-us.com), or contact Hollis Phillips by telephone (415.432.6903) or by e-mail (Hollis.Phillips@arcadis-us.com).

Sincerely,

ARCADIS

Prepared by:

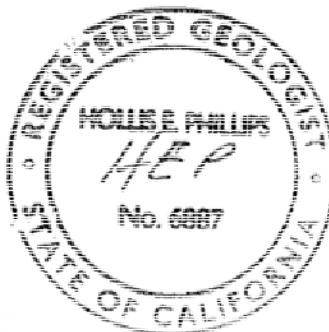


Jamey Peterson
Staff Geologist

Approved by:



Hollis E. Phillips, P.G. (No. 6887)
Principal Geologist



Enclosures:

- | | |
|------------|--|
| Table 1 | Soil Boring and Well Construction Details |
| Table 2 | Historical Groundwater Monitoring and Analytical Results |
| Figure 1 | Site Location Map |
| Figure 2 | Site Plan |
| Figure 3 | Groundwater Elevation Contour Map – December 7, 2012 |
| Figure 4 | Groundwater Hydrocarbon Concentration Map – December 7, 2012 |
| Figure 5 | Groundwater Flow Direction Rose Diagram |
| Appendix A | Previous Investigations and Site History Summary |
| Appendix B | Groundwater Sampling Data Package |
| Appendix C | Certified Laboratory Analytical Report |

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TABLES

Table 1
Well Construction Details
Former BP Station No. 11126
1700 Powell St., Emeryville, California 94608

Well I.D.	Drill Date	Well		Screen		Screen Length (feet)	Comments
		Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)		
Monitoring Wells							
MW-1	10/20/1992	12	2	4	12	8	
MW-2	10/20/1992	12	2	5	12	7	
MW-3	10/20/1992	12	2	5	12	7	
MW-4	10/20/1992	12	2	5	12	7	
MW-5	9/2/1993	13.5	2	3.5	13.5	10	
MW-6	9/3/1993	14	2	4	14	10	
MW-7	9/3/1993	14	2	4	14	10	
MW-8	9/3/1993	14	2	4	14	10	
MW-9	9/3/1993	14	4	4	14	10	
MW-10	4/15/2005	20	2	7	17	10	
MW-11	4/15/2005	24	2	7	17	10	

Notes:

Wells are of polyvinyl chloride (PVC) construction

bgs = Below ground surface

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
CPT-01	1/6/2011		--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	14	63	<0.50	<0.50	<0.50	<250	--		
CPT-02	1/6/2011		--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<250	--		
MW-1	11/4/1992		7.76	4.96	--	2.80	--	5,300	1,100	480	<0.5	1,500	--	--	--	--	--	--	--	
MW-1	10/12/1993		7.76	5.26	--	2.50	--	3,600	970	71	100	550	6,111	--	--	--	--	--	--	
MW-1	2/15/1994		7.76	4.98	--	2.78	--	17,000	4,200	510	360	1,600	5,495	--	--	--	--	--	3.90	
MW-1	5/11/1994		7.76	4.55	--	3.21	--	5,500	2,900	37	56	64	705	--	--	--	--	--	8.00	
MW-1	8/1/1994		7.76	5.51	--	2.25	--	15,000	3,600	740	510	2,800	9,718	--	--	--	--	--	2.90	
MW-1	8/1/1994	Dup	7.76	5.51	--	2.25	--	16,000	3,600	750	510	2,800	9,800	--	--	--	--	--	(Dup)	
MW-1	10/18/1994		7.76	5.11	--	2.65	--	16,000	1,800	61	160	890	15,668	--	--	--	--	--	2.90	
MW-1	10/18/1994	Dup	7.76	5.11	--	2.65	--	16,000	1,900	64	170	950	--	--	--	--	--	--	(Dup)	
MW-1	1/13/1995	Dup	7.76	--	--	--	--	590	88	0.7	<0.5	55	--	--	--	--	--	--	(Dup)(DUP)	
MW-1	1/13/1995	Dup	7.76	--	--	--	--	220	7	<0.5	1	23	--	--	--	--	--	--	6.60	
MW-1	4/13/1995		7.76	3.84	--	3.92	--	9,300	4,000	300	200	950	--	--	--	--	--	--	7.70	
MW-1	7/11/1995		7.76	3.60	--	4.16	--	15,000	2,200	84	<25	2,500	--	--	--	--	--	--	8.80	
MW-1	11/2/1995		7.76	4.58	--	3.18	--	19,000	920	<100	<100	430	52,000	--	--	--	--	--	7.30	
MW-1	2/5/1996		7.76	4.43	--	3.33	--	4,600	1,400	330	54	247	8,700	--	--	--	--	--	3.20	
MW-1	4/24/1996		7.76	4.00	--	3.76	--	2,000	510	33	61	228	4,500	--	--	--	--	--	7.50	
MW-1	7/15/1996		7.76	4.30	--	3.46	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	7/16/1996		7.76	--	--	--	--	12,000	2,800	170	390	1,630	64,000	--	--	--	--	--	7.90	
MW-1	7/16/1996	Dup	7.76	--	--	--	--	12,000	2,800	160	390	1,610	63,000	--	--	--	--	--	(Dup)	
MW-1	7/30/1996		7.76	4.64	--	3.12	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	8/12/1996		7.76	--	--	--	--	11,000	2,500	160	<10	1,740	440,000	--	--	--	--	--	7.00	
MW-1	11/4/1996		7.76	5.98	--	1.78	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	11/5/1996		7.76	--	--	--	--	53,000	1,300	43	100	349	42,000	--	--	--	--	--	6.60	
MW-1	5/17/1997		7.76	4.65	--	3.11	--	52,000	1,958	55	305	1,216	140,198	--	--	--	--	--	5.70	
MW-1	8/11/1997		7.76	4.90	--	2.86	--	25,000	540	6.7	<5.0	57	360,000	--	--	--	--	--	7.90	
MW-1	11/17/1997		7.76	6.12	--	1.64	--	93,000	1,200	31	180	40	400,000	--	--	--	--	--	7.60	
MW-1	1/29/1998		7.76	4.90	--	2.86	--	4,800	320	24	52	20	<50	--	--	--	--	--	6.60	
MW-1	6/22/1998		7.76	4.62	--	3.14	--	63,000	180	<50.0	15	69	57,000	--	--	--	--	--	6.00	
MW-1	12/30/1998		7.76	5.41	--	2.35	--	22,000	2,500	24	120	400	15,000	--	--	--	--	--	--	
MW-1	3/9/1999		7.76	3.40	--	4.36	--	16,000	2,000	84	290	510	13,000	--	--	--	--	--	--	
MW-1	6/23/1999		7.76	4.60	--	3.16	--	9,600	4,500	21	160	260	24,000	--	--	--	--	--	--	
MW-1	9/23/1999		7.76	4.21	--	3.55	--	3,800	1,600	32	150	240	7,100	--	--	--	--	--	--	
MW-1	12/28/1999		7.76	4.10	--	3.66	--	3,400	<2,200	17	53	130	5,500	--	--	--	--	--	--	
MW-1	3/22/2000		7.76	5.51	--	2.25	--	6,400	1,100	45	190	330	4,900	--	--	--	--	--	--	
MW-1	5/26/2000		7.76	4.79	--	2.97	--	110,000	700	44	140	250	320,000	--	--	--	--	--	--	
MW-1	9/6/2000		7.76	5.19	--	2.57	--	5,600	1,000	13	57	90	19,000	--	--	--	--	--	--	
MW-1	9/15/2000		7.76	5.73	--	2.03	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	12/11/2000		7.76	5.82	--	1.94	--	5,500	1,160	47	155	292	3,900	--	--	--	--	--	--	
MW-1	3/29/2001		7.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-1	6/27/2001		7.76	5.49	--	2.27	--	6,100	1,200	13	17	78	1,780	--	--	--	--	--	--	
MW-1	9/19/2001		7.76	6.19	--	1.57	--	1,800	102	<12.5	<12.5	<37.5	1,090	--	--	--	--	--	--	
MW-1	12/28/2001		7.76	5.27	--	2.49	--	4,000	540	12	20	65	1,120	--	--	--	--	--	--	
MW-1	3/12/2002		7.76	5.68	--	2.08	--	3,700	491	8.4	12	27	1,020	--	--	--	--	--	--	
MW-1	6/13/2002		7.76	5.54	--	2.22	--	1,900	255	<12.5	<12.5	<25	6,490	--	--	--	--	--	--	
MW-1	9/6/2002		7.76	5.56	--	2.20	--	1,100	170	5.1	2.2	20	550	--	--	--	--	--	--	
MW-1	12/13/2002		7.76	5.45	--	2.31	--	2,700	610	10	18	67	470	--	--	--	--	--	--	
MW-1	2/19/2003		7.76	3.00	--	4.76	--	1,500	180	<5.0	<5.0	15	610	--	--	--	--	--	--	
MW-1	6/6/2003		7.76	5.52	--	2.24	--	4,600	620	<25	<25	55	1,400	<1,000	<25	<25	<25	<5,000	--	
MW-1	8/7/2003		7.76	5.55	--	2.21	--	2,000	290	<5.0	<5.0	15	920	560	<5.0	<5.0	12	<1,000	--	
MW-1	11/20/2003		7.76	5.41	--	2.35	--	2,800	420	11	11	53	250	<200	<5.0	<5.0	<5.0	<1,000	1,800	
MW-1	4/28/2004		7.76	5.33	--	2.43	--	1,600	100	5.3	<5.0	8.8	200	950	<5.0	<5.0	<5.0	<1,000	--	
MW-1	8/26/2004		7.76	4.03	--	3.73	--	1,700	220	7.2	15	35	180	320	<2.5	<2.5	<2.5	<500	--	
MW-1	12/1/2004		7.76	3.93	--	3.83	--	2,100	380	8	34	76	170	300	<5.0	<5.0	<5.0	<1,000	--	
MW-1	2/2/2005		7.76	3.61	--	4.15	--	1,100	150	3	12	14	160	6,700	<2.5	<2.5	<2.5	<500	--	
MW-1	4/25/2005		10.16	3.75	--	6.41	--	930	140	3.6	5.3	11	200	5,000	<2.5	<2.5	<2.5	<500	--	
MW-1	9/30/2005		10.16	3.54	--	6.62	--	4,600	1,000	15	78	150	250	1,200	13	<5.0	<5.0	<500	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-1	12/28/2005		10.16	3.26	--	6.90	--	1,500	200	5.7	32	58	140	1,800	<10	<5.0	<5.0	<1,000	--	
MW-1	3/23/2006		10.16	3.40	--	6.76	--	580	42	<5.0	10	20	40	2,800	<10	<5.0	<5.0	<1,000	--	
MW-1	6/5/2006		10.16	2.97	--	7.19	--	900	230	2.5	28	71	160	1,900	<5.0	<2.5	<2.5	<500	--	
MW-1	9/19/2006		10.16	3.67	--	6.49	--	1,600	240	3.4	11	23	180	1,000	<5.0	<2.5	<2.5	<1,300	--	
MW-1	12/1/2006		10.16	3.64	--	6.52	--	1,400	86	4.3	7	19	150	930	<5.0	<2.5	<2.5	<1,300	--	
MW-1	3/1/2007		10.16	3.55	--	6.61	--	4,200	340	7	34	46	160	510	<4.0	<2.0	2	<1,000	--	
MW-1	6/1/2007		10.16	3.53	--	6.63	--	2,100	200	3.4	34	59	140	1,500	<4.0	<2.0	2.2	<1,000	--	
MW-1	9/13/2007		10.16	4.88	--	5.28	--	540	74	2.4	5.4	10	59	1,300	<4.0	<2.0	<2.0	1,100	--	
MW-1	11/21/2007		10.16	3.70	--	6.46	--	1,800	67	6.2	3.5	12	200	1,300	<4.0	<2.0	2.7	<1,000	--	
MW-1	2/29/2008		10.16	3.49	--	6.67	--	970	100	1.9	37	32	25	1,200	<1.0	<0.5	<0.5	<250	--	
MW-1	5/23/2008		10.16	4.26	--	5.90	--	1,300	170	3.5	15	26	120	1,800	<1.0	<0.5	1.4	<250	--	
MW-1	9/26/2008		10.16	4.29	--	5.87	--	1,800	26	6.1	<1.0	10	120	1,400	<1.0	<1.0	1.9	<250	--	
MW-1	12/23/2008		10.16	3.79	--	6.37	--	1,600	14	6.1	1.2	9.7	75	940	<1.0	<1.0	<1.0	<250	--	
MW-1	3/9/2009		10.16	3.29	--	6.87	--	2,100	200	5.6	16	29	88	1,300	<1.0	<1.0	1.7	<250	--	
MW-1	5/28/2009		10.16	4.02	--	6.14	--	880	64	1.5	3.4	9.4	48	1,800	<1.0	<1.0	1.3	<250	0.46	
MW-1	12/10/2009		10.16	3.92	--	6.24	--	1,300	46	6.9	2.6	10	65	560	<0.50	<0.50	1.1	<100	0.47	
MW-1	6/29/2010		10.16	3.60	--	6.56	--	530	18	1.3	<0.50	4.3	<0.50	2,000	<0.50	<0.50	1.2	<100	0.53	
MW-1	12/30/2010		10.16	3.55	--	6.61	--	1,000	19	3.2	1.4	8.2	46	1,900	<0.50	<0.50	1.0	<250	(P)	
MW-1	6/29/2011		10.16	3.58	--	6.58	--	60	<0.50	<0.50	<0.50	<1.0	3.9	840	--	--	<0.50	--	0.40	
MW-1	1/30/2012		10.16	3.82	--	6.34	--	1,100	42	4.5	0.90	7.2	64	900	--	--	1.3	--	0.66	
MW-1	6/27/2012		10.16	3.79	--	6.37	--	420	15	0.74	<0.50	3.1	18	1,400	--	--	0.83	--	1.62	
MW-1	12/7/2012		10.16	3.30	--	6.86	--	700	6.3	2.3	<0.50	4.8	32	1,400	--	--	0.81	--	1.64	
MW-2	11/4/1992		8.56	5.88	--	2.68	--	12,000	3,900	1,300	<0.5	2,300	--	--	--	--	--	--	--	
MW-2	11/4/1992	Dup	8.56	5.88	--	2.68	--	12,000	3,200	980	<0.5	1,900	--	--	--	--	--	--	(Dup)	
MW-2	10/12/1993		8.56	6.29	--	2.27	--	4,500	3,400	180	230	940	442	--	--	--	--	--	--	
MW-2	2/15/1994		8.56	--	--	--	--	1,800	290	160	14	250	--	--	--	--	--	--		
MW-2	2/15/1994	Dup	8.56	--	--	--	--	2,000	430	270	28	390	127	--	--	--	--	4.00		
MW-2	5/11/1994		8.56	5.17	--	3.39	--	14,000	3,900	1,200	440	1,900	953	--	--	--	--	8.90		
MW-2	5/11/1994	Dup	8.56	5.17	--	3.39	--	15,000	5,600	1,500	470	2,000	740	--	--	--	--	(Dup)		
MW-2	8/1/1994		8.56	5.43	--	3.13	--	8,200	3,000	420	230	680	1,676	--	--	--	--	2.60		
MW-2	10/18/1994		8.56	5.71	--	2.85	--	9,000	2,000	140	150	420	2,417	--	--	--	--	7.20		
MW-2	1/13/1995		8.56	4.67	--	3.89	--	7,900	2,200	42	<5.0	770	--	--	--	--	--	6.80		
MW-2	4/13/1995		8.56	4.37	--	4.19	--	33,000	8,000	2,500	1,100	6,600	--	--	--	--	--	7.50		
MW-2	4/13/1995	Dup	8.56	4.37	--	4.19	--	25,000	6,500	1,500	110	5,300	--	--	--	--	--	(Dup)		
MW-2	7/11/1995		8.56	4.51	--	4.05	--	19,000	3,300	99	7.5	4,600	--	--	--	--	--	7.80		
MW-2	7/11/1995	Dup	8.56	4.51	--	4.05	--	28,000	6,800	1,000	900	4,900	--	--	--	--	--	(Dup)		
MW-2	11/2/1995		8.56	5.55	--	3.01	--	20,000	3,800	1,200	570	2,700	15,000	--	--	--	--	7.30		
MW-2	11/2/1995	Dup	8.56	5.55	--	3.01	--	22,000	4,000	1,200	600	2,700	19,000	--	--	--	--	(Dup)		
MW-2	2/5/1996		8.56	5.10	--	3.46	--	1,200	320	220	26	187	99	--	--	--	--	2.20		
MW-2	2/5/1996	Dup	8.56	5.10	--	3.46	--	910	290	180	19	137	93	--	--	--	--	(Dup)		
MW-2	4/24/1996		8.56	--	--	--	--	<500	100	30	<10	71	<100	--	--	--	--	--		
MW-2	4/24/1996	Dup	8.56	--	--	--	--	<500	70	22	<10	61	<50	--	--	--	--	7.00		
MW-2	7/15/1996		8.56	5.40	--	3.16	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	7/16/1996		8.56	--	--	--	--	12,000	3,300	1,400	250	2,610	1,400	--	--	--	--	7.80		
MW-2	7/30/1996		8.56	5.44	--	3.12	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	11/4/1996		8.56	7.06	--	1.50	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	11/5/1996		8.56	--	--	--	--	7,200	1,400	230	38	2,110	1,100	--	--	--	--	7.40		
MW-2	11/5/1996	Dup	8.56	--	--	--	--	9,200	1,300	170	<25	2,240	1,100	--	--	--	--	(Dup)		
MW-2	5/17/1997		8.56	5.77	--	2.79	--	570	42	<5.0	5	60	210	--	--	--	--	6.90		
MW-2	8/11/1997		8.56	5.71	--	2.85	--	6,300	1,800	130	86	397	2,400	--	--	--	--	8.50		
MW-2	11/17/1997		8.56	6.91	--	1.65	--	2,400	220	30	33	259	130	--	--	--	--	7.90		
MW-2	1/29/1998		8.56	4.61	--	3.95	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	6.20		
MW-2	6/22/1998		8.56	4.80	--	3.76	--	4,200	640	150	120	650	560	--	--	--	--	5.40		
MW-2	12/30/1998		8.56	5.21	--	3.35	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	6/23/1999		8.56	5.30	--	3.26	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	9/23/1999		8.56	4.75	--	3.81	--	3,800	760	19	210	960	910	--	--	--	--	--		
MW-2	12/28/1999		8.56	4.51	--	4.05	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	3/22/2000		8.56	4.21	--	4.35	--	2,500	780	17	44	270	2,800	--	--	--	--	--		

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-2	5/26/2000		8.56	4.66	--	3.90	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	9/6/2000		8.56	4.71	--	3.85	--	3,700	1,200	5.5	12	170	12,000	--	--	--	--	--	--	
MW-2	9/15/2000		8.56	4.74	--	3.82	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	12/11/2000		8.56	4.79	--	3.77	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	3/29/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	6/27/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-2	9/19/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-2	12/28/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-2	3/12/2002		8.56	4.25	--	4.31	--	26,000	1,160	4.4	61	171	37,300	--	--	--	--	--	--	
MW-2	6/13/2002		8.56	4.94	--	3.62	--	18,000	578	<50	<50	<100	84,600	--	--	--	--	--	--	
MW-2	9/6/2002		8.56	5.23	--	3.33	--	26,000	440	<50	<50	<50	45,000	--	--	--	--	--	--	
MW-2	12/13/2002		8.56	4.94	--	3.62	--	69,000	1,200	<5000	<500	<500	98,000	--	--	--	--	--	--	
MW-2	2/19/2003		8.56	4.14	--	4.42	--	78,000	1,100	<5000	<500	<500	81,000	--	--	--	--	--	--	
MW-2	6/6/2003		8.56	4.66	--	3.90	--	120,000	1,100	<1,000	<1,000	<1,000	72,000	<40,000	<1,000	<1,000	1,300	<200,000	--	
MW-2	8/7/2003		8.56	4.90	(Sheen)	3.66	--	71,000	590	<500	<500	<500	83,000	45,000	<500	<500	1,300	<100,000	--	
MW-2	11/20/2003		8.56	4.59	--	3.97	--	22,000	720	<100	<100	<100	18,000	48,000	<100	<100	200	<20,000	--	
MW-2	4/28/2004		8.56	4.37	--	4.19	--	<25,000	690	<250	<250	<250	31,000	59,000	<250	<250	<250	<50,000	--	
MW-2	8/26/2004		8.56	4.59	--	3.97	--	140,000	8,200	18,000	4,200	19,000	11,000	<10,000	<250	<250	320	<50,000	--	
MW-2	12/1/2004		8.56	4.79	--	3.77	--	98,000	8,400	13,000	4,600	21,000	10,000	<4,000	<100	<100	230	<20,000	--	
MW-2	2/2/2005		8.56	4.27	(Sheen)	4.29	--	92,000	6,600	9,900	4,400	18,000	10,000	4,000	<100	<100	260	<20,000	--	
MW-2	4/25/2005		11.39	4.00	--	7.39	--	80,000	6,700	4,900	4,400	17,000	8,200	3,700	<50	<50	220	<10,000	--	
MW-2	9/30/2005		11.39	4.86	--	6.53	--	98,000	7,700	7,400	4,700	20,000	16,000	4,700	<50	<50	270	<5,000	--	
MW-2	12/28/2005		11.39	4.28	--	7.11	--	210,000	15,000	21,000	7,300	31,000	22,000	6,300	<200	<100	410	<20,000	--	
MW-2	3/23/2006		11.39	3.60	--	7.79	--	79,000	9,100	12,000	4,300	17,000	13,000	5,800	<200	<100	290	<20,000	--	
MW-2	6/5/2006		11.39	4.28	(Sheen)	7.11	--	79,000	9,700	8,700	4,900	20,000	8,000	3,300	<100	<50	280	<10,000	--	
MW-2	9/19/2006		11.39	4.61	--	6.78	--	68,000	12,000	9,300	4,100	14,000	16,000	4,800	<100	<50	370	<25,000	--	
MW-2	12/1/2006		11.39	4.55	--	6.84	--	61,000	15,000	6,900	4,400	17,000	10,000	3,900	<100	<50	270	<25,000	--	
MW-2	3/1/2007		11.39	4.14	--	7.25	--	80,000	9,300	5,500	4,100	15,000	8,300	2,700	<100	<50	210	<25,000	--	
MW-2	6/1/2007		11.39	4.34	--	7.05	--	120,000	12,000	6,400	4,200	11,000	17,000	4,900	260	<100	310	<50,000	--	
MW-2	9/13/2007		11.39	5.35	--	6.04	--	<5,000	770	<50	140	<100	2,300	42,000	<100	<50	50	<23,000	--	
MW-2	11/21/2007		11.39	5.19	--	6.20	--	27,000	4,500	220	1,600	2,800	5,200	5,000	<100	<50	160	<25,000	--	
MW-2	2/29/2008		11.39	4.41	--	6.98	--	44,000	6,100	320	3,800	6,600	4,900	2,500	<100	<50	120	<25,000	--	
MW-2	5/23/2008		11.39	5.25	--	6.14	--	13,000	1,700	<50	300	210	2,500	29,000	140	<50	60	<25,000	--	
MW-2	9/26/2008		11.39	5.81	--	5.58	--	4,800	220	12	20	42	960	77,000	<1.0	2.8	42	<250	--	
MW-2	12/23/2008		11.39	5.50	--	5.89	--	5,700	950	19	170	70	1,800	57,000	<2.0	2.4	51	<500	--	
MW-2	3/9/2009		11.39	4.35	--	7.04	--	25,000	3,200	73	2,800	2,200	21,000	<20	<20	82	<5,000	--		
MW-2	5/28/2009		11.39	4.90	--	6.49	--	55,000	4,700	740	3,800	8,100	2,800	2,000	<10	<10	110	<2,500	0.27	
MW-2	12/10/2009		11.39	5.29	--	6.10	--	2,200	250	7.3	13	14	360	44,000	0.52	1.4	8.7	<100	0.65	
MW-2	6/29/2010		11.39	5.03	--	6.36	--	5,300	800	<25	250	300	770	31,000	<25	<25	<5,000	0.60	(P, odor)	
MW-2	12/30/2010		11.39	4.22	--	7.17	--	19,000	3,500	58	2,000	1,000	1,700	4,700	<25	<25	56	<12,000	--	
MW-2	6/29/2011		11.39	4.51	--	6.88	--	12,000	3,200	41	920	150	2,100	2,400	<25	<25	77	--	0.41	
MW-2	1/30/2012		11.39	4.93	--	6.46	--	13,000	3,000	45	640	370	1,700	1,900	<20	<20	60	--	0.63	
MW-2	6/27/2012		11.39	4.72	--	6.67	--	23,000	3,900	110	2,300	2,000	2,600	2,900	<20	<20	95	--	1.24	
MW-2	12/7/2012		11.39	4.11	--	7.28	--	10,000	2,600	31	350	72	1,300	3,400	<10	<10	51	--	1.03	
MW-3	11/4/1992		8.25	6.38	--	1.87	690	200	1.6	<0.5	<0.5	1.1	--	--	--	--	--	--		
MW-3	10/12/1993		8.25	--	--	--	2,100	150	5.6	0.6	<0.5	1.6	--	--	--	--	--	--		
MW-3	10/12/1993 Dup		8.25	--	--	--	--	270	5	0.7	<0.5	2.6	96	--	--	--	--	(Dup)		
MW-3	2/15/1994		8.25	6.60	--	1.65	2.3	140	5.7	<0.5	<0.5	<0.5	30	--	--	--	--	3.90		
MW-3	5/11/1994		8.25	5.86	--	2.39	2,500	190	2.7	1.9	<0.5	1.9	51	--	--	--	--	9.20		
MW-3	8/1/1994		8.25	6.13	--	2.12	1,300	120	1.3	<0.5	0.5	1.1	18	--	--	--	--	2.90		
MW-3	10/18/1994		8.25	6.39	--	1.86	2,200	100	2.3	<0.5	<0.5	21	--	--	--	--	--	3.60		
MW-3	1/13/1995		8.25	5.47	--	2.78	970	<50	0.8	<0.5	<0.5	<1.0	--	--	--	--	--	7.70		
MW-3	4/13/1995		8.25	5.17	--	3.08	<500	530	8.7	1.9	<0.5	3.9	--	--	--	--	--	8.40		
MW-3	7/11/1995		8.25	5.37	--	2.88	2,100	78	0.57	<0.5	<0.5	<1.0	--	--	--	--	--	8.30		
MW-3	11/2/1995		8.25	6.29	--	1.96	2,000	250	0.73	<0.5	<0.5	1.8	270	--	--	--	--	8.30		
MW-3	2/5/1996		8.25	5.80	--	2.45	1,600	<50	<0.5	<1.0	<1.0	2.7	11	--	--	--	--	3.50		
MW-3	4/24/1996		8.25	5.69	--	2.56	2,800	<50	<5.0	<10	<10	<10	150	--	--	--	--	8.60		
MW-3	7/15/1996		8.25	6.18	--	2.07	3,700	<250	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	7.70		

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-3	7/30/1996		8.25	6.04	--	2.21	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	11/4/1996		8.25	7.84	--	0.41	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	11/5/1996		8.25	--	--	--	890	90	<0.5	<1.0	<1.0	<1.0	30	--	--	--	--	--	6.80	
MW-3	5/17/1997		8.25	6.49	--	1.76	2,100	<50	<0.5	<1.0	<1.0	<1.0	52	--	--	--	--	--	6.30	
MW-3	8/11/1997		8.25	6.15	--	2.10	1,900	490	<2.5	<5.0	<5.0	<5.0	170	--	--	--	--	--	7.40	
MW-3	11/17/1997		8.25	7.15	--	1.10	2,500	120	<0.5	<1.0	<1.0	<1.0	46	--	--	--	--	--	7.00	
MW-3	1/29/1998		8.25	5.10	--	3.15	1,700	270	0.53	<1.0	<1.0	<1.0	330	--	--	--	--	--	6.40	
MW-3	6/22/1998		8.25	5.50	--	2.75	2,200	200	<0.5	<1.0	<1.0	<1.0	130	--	--	--	--	--	5.50	
MW-3	12/30/1998		8.25	6.68	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	3/9/1999		8.25	5.53	--	2.72	840	60	<1.0	<1.0	<1.0	<1.0	19	--	--	--	--	--	--	
MW-3	6/23/1999		8.25	6.60	--	1.65	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	9/23/1999		8.25	6.17	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	12/28/1999		8.25	6.00	--	2.25	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	3/22/2000		8.25	4.77	--	3.48	<58	690	4.2	3.1	0.81	2.7	2,900	--	--	--	--	--	--	
MW-3	5/26/2000		8.25	5.28	--	2.97	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	9/15/2000		8.25	5.58	--	2.67	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	12/11/2000		8.25	11.74	--	-3.49	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	3/29/2001		8.25	5.04	--	3.21	<50	650	<2.5	<2.5	<2.5	<2.5	7.5	680	--	--	--	--	--	
MW-3	6/27/2001		8.25	5.62	--	2.63	690	460	<2.5	<2.5	<2.5	<2.5	560	--	--	--	--	--	--	
MW-3	9/19/2001		8.25	5.80	--	2.45	520	<500	<5.0	<5.0	<5.0	<15	464	--	--	--	--	--	--	
MW-3	12/28/2001		8.25	4.85	--	3.40	550	180	<0.5	<0.5	<0.5	<1.0	180	--	--	--	--	--	--	
MW-3	3/12/2002		8.25	4.39	--	3.86	1,300	410	<2.5	<2.5	<2.5	<5.0	443	--	--	--	--	--	--	
MW-3	6/13/2002		8.25	5.38	--	2.87	2,600	<250	<2.5	<2.5	<2.5	<5.0	395	--	--	--	--	--	--	
MW-3	9/6/2002		8.25	5.68	--	2.57	--	<200	<2.0	<2.0	<2.0	<2.0	650	--	--	--	--	--	--	
MW-3	12/13/2002		8.25	5.37	--	2.88	980	<50	<0.5	<0.5	<0.5	<0.5	60	--	--	--	--	--	--	
MW-3	2/19/2003		8.25	4.80	--	3.45	380	<1,000	<10	<10	<10	<10	120	--	--	--	--	--	--	
MW-3	6/6/2003		8.25	5.13	--	3.12	620	<500	<5.0	<5.0	<5.0	<5.0	180	<200	<5.0	<5.0	16	<1,000	--	
MW-3	8/7/2003		8.25	5.43	--	2.82	820N	<500	5.7	<5.0	<5.0	<5.0	290	<200	<5.0	<5.0	20	<1,000	--	
MW-3	11/20/2003		8.25	4.72	--	3.53	1,200N	<50	<0.5	<0.5	<0.5	<0.5	17	<20	<0.5	<0.5	1.4	<100	--	
MW-3	4/28/2004		8.25	4.87	--	3.38	240N	<100	<1.0	<1.0	<1.0	<1.0	87	<40	<1.0	<1.0	3.9	<200	--	
MW-3	8/26/2004		8.25	5.42	--	2.83	250N	56	<0.5	<0.5	<0.5	<0.5	34	260	<0.5	<0.5	2	<100	--	
MW-3	12/1/2004		8.25	5.69	--	2.56	690	<100	<1.0	<1.0	<1.0	<1.0	7.4	610	<1.0	<1.0	<1.0	<200	--	
MW-3	2/2/2005		8.25	4.72	--	3.53	730	<100	<1.0	<1.0	<1.0	<1.0	20	<40	<1.0	<1.0	1.1	<200	--	
MW-3	4/25/2005		10.73	4.75	--	5.98	520	<250	<2.5	<2.5	<2.5	<2.5	220	160	<2.5	<2.5	10	<500	--	
MW-3	9/30/2005		10.73	5.30	--	5.43	300N	<50	<0.5	<0.5	<0.5	<1.0	8.2	270	<0.5	<0.5	0.68	<50	--	
MW-3	12/28/2005		10.73	4.41	--	6.32	100	<50	<0.5	<0.5	<0.5	<1.0	0.66	<5.0	<1.0	<0.5	<0.5	<100	--	
MW-3	3/23/2006		10.73	4.43	--	6.30	260	<50	<0.5	<0.5	<0.5	<1.0	13	130	<1.0	<0.5	0.63	<100	--	
MW-3	6/5/2006		10.73	4.95	--	5.78	340	61	0.69	1.4	0.85	3.6	29	510	<1.0	<0.5	1.6	<100	--	
MW-3	9/19/2006		10.73	5.19	--	5.54	330	<50	<0.5	<0.5	<0.5	<1.0	4.1	420	<1.0	<0.5	<0.5	<250	--	
MW-3	12/1/2006		10.73	5.37	--	5.36	130	<50	<0.5	<0.5	<0.5	<1.0	2	250	<1.0	<0.5	<0.5	<250	--	
MW-3	3/1/2007		10.73	4.62	--	6.11	120	<50	<0.5	<0.5	<0.5	<1.0	3.8	77	<1.0	<0.5	<0.5	<250	--	
MW-3	6/1/2007		10.73	5.53	--	5.20	350	<50	<0.5	<0.5	<0.5	<1.0	3.7	320	<1.0	<0.5	<0.5	<250	--	
MW-3	9/13/2007		10.73	6.17	--	4.56	1,200	<250	<2.5	<2.5	<2.5	<5.0	2.6	2,000	<5.0	<2.5	<2.5	<1,300	--	
MW-3	11/21/2007		10.73	6.16	--	4.57	1,600	<250	<2.5	<2.5	<2.5	<5.0	3.4	2,600	<5.0	<2.5	<2.5	<1,300	--	
MW-3	2/29/2008		10.73	5.38	--	5.35	350	<50	<0.5	<0.5	<0.5	<1.0	0.9	540	<1.0	<0.5	<0.5	<250	--	
MW-3	5/23/2008		10.73	6.07	--	4.66	1,100	<500	<5.0	<5.0	<5.0	<10	<5.0	3,200	<10	<5.0	<5.0	<2,500	--	
MW-3	9/26/2008		10.73	6.46	--	4.27	3,000	120	<1.0	<1.0	<1.0	<1.0	4.8	6,900	<1.0	<1.0	<1.0	<250	--	
MW-3	12/23/2008		10.73	6.36	--	4.37	2,800	87	<1.0	<1.0	<1.0	<1.0	4.9	8,200	<1.0	<1.0	<1.0	<250	--	
MW-3	3/9/2009		10.73	5.31	--	5.42	900	<50	<1.0	<1.0	<1.0	<1.0	55	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-3	5/28/2009		10.73	5.77	--	4.96	1,600	<50	<1.0	<1.0	<1.0	<1.0	2.1	580	<1.0	<1.0	<1.0	<250	0.19	
MW-3	12/10/2009		10.73	5.67	--	5.06	--	<50	<0.50	<0.50	<0.50	<1.0	0.86	270	<0.50	<0.50	<0.50	<100	0.72	
MW-3	6/29/2010		10.73	5.85	--	4.88	2,700	<50	<0.50	<0.50	<0.50	<1.0	1.9	2,900	<0.50	<0.50	<0.50	<100	0.52	
MW-3	12/30/2010		10.73	4.33	--	6.40	520	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<250	--	
MW-3	6/29/2011		10.73	5.00	--	5.73	250	<50	--	--	--	--	0.73	73	--	--	<0.50	--	0.45	
MW-3	1/30/2012		10.73	5.22	--	5.51	160	<50	--	--	--	--	<0.50	65	--	--	<0.50	--	1.21	
MW-3	6/27/2012		10.73	5.19	--	5.54	270	<50	--	--	--	--	1.6	250	--	--	<0.50	--	1.14	
MW-3	12/7/2012		10.73	4.65	--	6.08	110	<50	--	--	--	--	<0.50	20	--	--	<0.50	--	1.10	
MW-4	11/4/1992		8.12	6.66	--	1.46	--	340	4.5	<0.5	4.3	<0.5	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-4	10/12/1993		8.12	6.87	--	1.25	--	160	5.8	1.4	0.8	2.7	261	--	--	--	--	--	--	
MW-4	2/15/1994		8.12	6.61	--	1.51	--	110	4.4	0.7	<0.5	2.5	118	--	--	--	--	--	4.30	
MW-4	5/11/1994		8.12	5.89	--	2.23	--	120	0.5	0.8	<0.5	<0.5	137	--	--	--	--	--	9.30	
MW-4	8/1/1994		8.12	6.87	--	1.25	--	140	0.7	2	5.2	15	138	--	--	--	--	--	3.30	
MW-4	10/18/1994		8.12	6.62	--	1.50	--	140	3.5	<0.5	0.5	<0.5	197	--	--	--	--	--	3.00	
MW-4	1/13/1995		8.12	7.27	--	0.85	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	7.90	
MW-4	4/13/1995		8.12	6.51	--	1.61	--	73	1.2	<0.5	<0.5	<1.0	--	--	--	--	--	--	9.90	
MW-4	7/11/1995		8.12	6.21	--	1.91	--	82	0.57	<0.5	<0.5	<1.0	--	--	--	--	--	--	7.20	
MW-4	11/2/1995		8.12	6.78	--	1.34	--	71	1.4	0.96	0.99	2.8	140	--	--	--	--	--	8.60	
MW-4	2/5/1996		8.12	6.41	--	1.71	--	<50	<5.0	<10	<10	<10	200	--	--	--	--	--	4.40	
MW-4	4/24/1996		8.12	6.18	--	1.94	--	<250	<2.5	<5.0	<5.0	<5.0	510	--	--	--	--	--	8.30	
MW-4	7/15/1996		8.12	6.63	--	1.49	--	<50	5.7	<1.0	<1.0	<1.0	550	--	--	--	--	--	7.40	
MW-4	7/30/1996		8.12	6.34	--	1.78	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	11/4/1996		8.12	8.27	--	-0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	11/5/1996		8.12	--	--	--	--	460	<2.5	11	<5.0	<5.0	620	--	--	--	--	--	7.30	
MW-4	5/17/1997		8.12	7.00	--	1.12	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	8/11/1997		8.12	6.81	--	1.31	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	11/17/1997		8.12	9.19	--	-1.07	--	840	<0.5	<1.0	<1.0	<1.0	880	--	--	--	--	--	7.30	
MW-4	1/29/1998		8.12	7.94	--	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	6/22/1998		8.12	7.49	--	0.63	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	12/30/1998		8.12	8.21	--	-0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	3/9/1999		8.12	7.70	--	0.42	--	1,200	<1.0	<1.0	<1.0	<1.0	2,000	--	--	--	--	--	--	
MW-4	6/23/1999		8.12	8.81	--	-0.69	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	9/23/1999		8.12	8.32	--	-0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	12/28/1999		8.12	8.21	--	-0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	3/22/2000		8.12	6.74	--	1.38	--	910	<0.5	<0.5	0.54	1.7	3,800	--	--	--	--	--	--	
MW-4	5/26/2000		8.12	5.13	--	2.99	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	9/15/2000		8.12	8.20	--	-0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	12/11/2000		8.12	8.31	--	-0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	3/29/2001		8.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-4	6/27/2001		8.12	7.57	--	0.55	--	2,800	19	<2.5	<2.5	<7.5	4,220	--	--	--	--	--	--	
MW-4	9/19/2001		8.12	7.87	--	0.25	--	2,500	<5.0	<5.0	<5.0	<15	3,340	--	--	--	--	--	--	
MW-4	12/28/2001		8.12	7.80	--	0.32	--	4,400	<5.0	<5.0	<5.0	<10	5,330	--	--	--	--	--	--	
MW-4	3/12/2002		8.12	4.53	--	3.59	--	6,400	72	<5.0	<5.0	<10	8,440	--	--	--	--	--	--	
MW-4	6/13/2002		8.12	6.21	--	1.91	--	1,800	7.5	<5.0	5	13	6,870	--	--	--	--	--	--	
MW-4	9/6/2002		8.12	7.78	--	0.34	--	<2,000	<20	<20	<20	<20	9,600	--	--	--	--	--	--	
MW-4	12/13/2002		8.12	7.87	--	0.25	--	5,600	<50	<50	<50	<50	8,600	--	--	--	--	--	--	
MW-4	2/19/2003		8.12	4.84	--	3.28	--	<10,000	<100	<100	<100	<100	8,000	--	--	--	--	--	--	
MW-4	6/6/2003		8.12	7.98	--	0.14	--	13,000	<50	<50	<50	<50	6,800	2,500	<50	<50	190	<10,000	--	
MW-4	8/7/2003		8.12	7.24	--	0.88	--	6,200	<50	<50	<50	<50	6,600	2,400	<50	<50	160	<10,000	--	
MW-4	11/20/2003		8.12	7.02	--	1.10	--	10,000	<100	<100	<100	<100	11,000	<4,000	<100	<100	310	<20,000	--	
MW-4	4/28/2004		8.12	4.81	--	3.31	--	<25,000	<250	<250	<250	<250	3,600	15,000	<250	<250	<250	<50,000	--	
MW-4	8/26/2004		8.12	5.65	--	2.47	--	<2,500	<25	<25	<25	<25	1,800	16,000	<25	<25	60	--	--	
MW-4	12/1/2004		8.12	7.34	--	0.78	--	1,100	<10	<10	<10	<10	450	19,000	<10	<10	10	<2,000	--	
MW-4	2/2/2005		8.12	7.61	--	0.51	--	1,000	<5.0	<5.0	<5.0	<5.0	410	19,000	<5.0	<5.0	10	<1,000	--	
MW-4	4/25/2005		10.58	7.25	--	3.33	--	720	8	5.3	<5.0	16	170	18,000	<5.0	<5.0	<5.0	<1,000	--	
MW-4	9/30/2005		10.58	7.72	--	2.86	--	<2,500	63	58	46	140	110	30,000	<25	<25	<25	<2,500	--	
MW-4	12/28/2005		10.58	7.48	--	3.10	--	<2,500	<25	<25	<25	<50	34	27,000	<50	<25	<25	<5,000	--	
MW-4	3/23/2006		10.58	4.42	--	6.16	--	<2,500	<25	<25	<25	<50	120	34,000	<50	<25	<25	<5,000	--	
MW-4	6/5/2006		10.58	4.97	--	5.61	--	<5,000	<50	<50	<50	<100	<50	34,000	<100	<50	<50	<10,000	--	
MW-4	9/19/2006		10.58	5.45	--	5.13	--	<5,000	<50	<50	<50	<100	110	27,000	<100	<50	<50	<25,000	--	
MW-4	12/1/2006		10.58	5.14	--	5.44	--	<5,000	<50	<50	<50	<100	68	31,000	<100	<50	<50	<25,000	--	
MW-4	3/1/2007		10.58	7.60	--	2.98	--	<5,000	<50	<50	<50	<100	<50	31,000	<100	<50	<50	<25,000	--	
MW-4	6/1/2007		10.58	5.21	--	5.37	--	2,700	<25	<25	<25	<50	31	32,000	<50	<25	<25	<13,000	--	
MW-4	9/13/2007		10.58	6.45	--	4.13	--	<2,500	<25	<25	<25	<50	<25	10,000	<50	<25	<25	<13,000	--	
MW-4	11/21/2007		10.58	5.68	--	4.90	--	<2,500	<25	<25	<25	<50	<25	38,000	<50	<25	<25	<13,000	--	
MW-4	2/29/2008		10.58	6.44	--	4.14	--	<5,000	<50	<50	<50	<100	<50	32,000	<100	<50	<50	<25,000	--	
MW-4	5/23/2008		10.58	6.01	--	4.57	--	<5,000	<50	<50	<50	<100	<50	42,000	<100	<50	<50	<25,000	--	
MW-4	9/26/2008		10.58	7.37	--	3.21	--	370	<1.0	<1.0	<1.0	<1.0	14	39,000	<1.0	<1.0	<250	--	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-4	12/23/2008		10.58	6.04	--	4.54	--	270	<1.0	<1.0	<1.0	<1.0	15	37,000	<1.0	3.2	<1.0	<250	--	
MW-4	3/9/2009		10.58	5.30	--	5.28	--	140	<1.0	<1.0	<1.0	<1.0	18	27,000	<1.0	3.5	<1.0	<250	--	
MW-4	5/28/2009		10.58	7.06	--	3.52	--	330	<1.0	<1.0	<1.0	<1.0	21	36,000	<1.0	2.9	1.1	<250	0.41	
MW-4	12/10/2009		10.58	6.24	--	4.34	--	660	<0.50	<0.50	<0.50	<0.50	10	39,000	<0.50	2.7	<0.50	<100	0.49	
MW-4	6/29/2010		10.58	6.57	--	4.01	--	<500	<5.0	<5.0	<5.0	<10	7.3	38,000	<5.0	<5.0	<1,000	--	(P, well purged dry)	
MW-4	12/30/2010		10.58	7.32	--	3.26	--	<500	<5.0	<5.0	<5.0	<10	11	31,000	<5.0	<5.0	<5.0	<2,500	--	(P, well purged dry)
MW-4	6/29/2011		10.58	6.43	--	4.15	610	<500	--	--	--	--	11	30,000	--	--	<5.0	--	0.45	(P)
MW-4	1/30/2012		10.58	6.72	--	3.86	530	72	--	--	--	--	11	23,000	--	--	0.50	--	0.55	(P)
MW-4	6/29/2012		10.58	5.50	--	5.08	480	<500	--	--	--	--	9.3	28,000	--	--	<5.0	--	1.21	(P)
MW-4	12/7/2012		10.58	7.05	--	3.53	330	<500	--	--	--	--	8.7	18,000	--	--	<0.50	--	1.37	
MW-5	10/12/1993		7.69	6.01	--	1.68	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	10/13/1993		7.69	--	--	--	--	2,300	160	10	<0.5	26	--	--	--	--	--	--	--	
MW-5	2/15/1994		7.69	5.74	--	1.95	--	5,100	710	16	33	35	153	--	--	--	--	--	4.00	
MW-5	5/11/1994		7.69	5.28	--	2.41	--	11,000	1,100	39	110	57	165	--	--	--	--	--	8.00	
MW-5	8/1/1994		7.69	5.84	--	1.85	--	9,000	730	35	61	41	196	--	--	--	--	--	2.60	
MW-5	10/18/1994		7.69	6.01	--	1.68	--	7,800	330	30	27	27	559	--	--	--	--	--	5.60	
MW-5	1/13/1995		7.69	4.74	--	2.95	--	<500	290	6	<5.0	18	--	--	--	--	--	--	6.80	
MW-5	4/13/1995		7.69	5.50	--	2.19	--	9,100	400	15	52	27	--	--	--	--	--	--	7.40	
MW-5	7/11/1995		7.69	5.75	--	1.94	--	7,300	390	13	28	23	--	--	--	--	--	--	7.20	
MW-5	11/3/1995		7.69	6.65	--	1.04	--	7,200	270	15	38	23	200	--	--	--	--	--	8.40	
MW-5	2/5/1996		7.69	4.83	--	2.86	--	4,600	370	15	53	28	<50	--	--	--	--	--	1.90	
MW-5	4/24/1996		7.69	6.09	--	1.60	--	3,000	180	<10	32	14	<100	--	--	--	--	--	8.10	
MW-5	7/15/1996		7.69	6.57	--	1.12	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	7/16/1996		7.69	--	--	--	--	<50	190	<10	31	16	<100	--	--	--	--	--	8.30	
MW-5	7/30/1996		7.69	5.61	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	8/12/1996		7.69	--	--	--	--	2,000	150	12	25	18	<50	--	--	--	--	--	7.60	
MW-5	11/4/1996		7.69	8.25	--	-0.56	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	11/5/1996		7.69	--	--	--	--	5,200	42	5.5	13	<5.0	1,700	--	--	--	--	--	7.40	
MW-5	5/17/1997		7.69	6.95	--	0.74	--	80	0.56	<1.0	<1.0	<1.0	46	--	--	--	--	--	6.70	
MW-5	8/11/1997		7.69	6.72	--	0.97	--	2,700	20	12	6.7	9.7	1,900	--	--	--	--	--	8.50	
MW-5	11/17/1997		7.69	9.49	--	-1.80	--	8,400	25	12	8.7	5.4	13,000	--	--	--	--	--	7.90	
MW-5	1/29/1998		7.69	7.88	--	-0.19	--	110,000	2,500	110	180	589	180,000	--	--	--	--	--	6.80	
MW-5	6/22/1998		7.69	7.40	--	0.29	--	4,400	47	10	29	21	47	--	--	--	--	--	6.60	
MW-5	12/30/1998		7.69	6.13	--	1.56	--	6,000	18	9.1	22	16	63	--	--	--	--	--	--	
MW-5	3/9/1999		7.69	4.79	--	2.90	--	4,600	8.8	5.5	12	11	24	--	--	--	--	--	--	
MW-5	6/23/1999		7.69	5.95	--	1.74	--	3,400	1,500	8.9	54	87	7,500	--	--	--	--	--	--	
MW-5	9/23/1999		7.69	5.43	--	2.26	--	2,600	510	14	140	650	580	--	--	--	--	--	--	
MW-5	12/28/1999		7.69	5.30	--	2.39	--	3,500	900	18	57	140	4,800	--	--	--	--	--	--	
MW-5	3/2/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-5	5/26/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-5	9/6/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-5	9/15/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-5	12/11/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-5	3/29/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-5	6/27/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-5	9/19/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-5	12/28/2001		7.69	4.65	--	3.04	--	4,600	20	25	16	57	72	--	--	--	--	--	--	
MW-5	3/12/2002		7.69	5.35	--	2.34	--	5,100	45	14	22	39	32	--	--	--	--	--	--	
MW-5	6/13/2002		7.69	5.34	--	2.35	--	2,900	32	<12.5	<12.5	<25	616	--	--	--	--	--	--	
MW-5	9/6/2002		7.69	5.46	--	2.23	--	3,400	23	5.5	<5.0	11	230	--	--	--	--	--	--	
MW-5	12/13/2002		7.69	5.47	--	2.22	--	2,500	12	9.3	4.6	8.8	110	--	--	--	--	--	--	
MW-5	2/19/2003		7.69	5.29	--	2.40	--	2,800	11	5.4	9.7	12	6.4	--	--	--	--	--	--	
MW-5	6/6/2003		7.69	5.30	--	2.39	--	3,200	9.1	<5.0	7.6	9.3	<5.0	<200	<5.0	<5.0	<5.0	<1,000	--	
MW-5	8/7/2003		7.69	5.33	--	2.36	--	2,200	7.3	<5.0	<5.0	9.1	18	<200	<5.0	<5.0	<5.0	<1,000	--	
MW-5	11/20/2003		7.69	5.39	--	2.30	--	3,500	12	5.4	6.4	12	12	<100	<2.5	<2.5	<2.5	<500	--	
MW-5	4/28/2004		7.69	5.53	--	2.16	--	5,700	7.8	4.2	5.2	11	11	<100	<2.5	<2.5	<2.5	<500	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-5	8/26/2004		7.69	5.42	--	2.27	--	2,400	23	4	3.6	11	74	<100	<2.5	<2.5	<2.5	--	--	
MW-5	12/1/2004		7.69	5.38	--	2.31	--	4,300	11	<5.0	5.5	15	<5.0	<200	<5.0	<5.0	<5.0	<1,000	--	
MW-5	2/2/2005		7.69	5.48	--	2.21	--	4,000	8.4	4.8	4	10	11	<100	<2.5	<2.5	<2.5	<500	--	
MW-5	4/25/2005		10.18	5.52	--	4.66	--	5,200	7.6	4	4.3	9.9	12	<100	<2.5	<2.5	<2.5	<500	--	
MW-5	9/30/2005		10.18	5.04	--	5.14	--	4,100	5.3	2.7	2.1	8	16	27	<1.0	<1.0	<1.0	<100	--	
MW-5	12/28/2005		10.18	4.85	--	5.33	--	7,700	7.7	3.3	2.9	7.1	3.8	<20	14	<2.0	<2.0	<400	--	
MW-5	3/23/2006		10.18	5.07	--	5.11	--	5,700	11	3.3	2.4	8.1	8.6	37	<4.0	<2.0	<2.0	<400	--	
MW-5	6/5/2006		10.18	5.39	(Sheen)	4.79	--	5,900	36	5	3.7	15	11	90	<5.0	<2.5	<2.5	<500	--	
MW-5	9/19/2006		10.18	4.75	--	5.43	--	4,600	6.7	<2.5	<2.5	<5.0	12	53	<5.0	<2.5	<2.5	<1,300	--	
MW-5	12/1/2006		10.18	5.29	--	4.89	--	4,400	5	<2.5	<2.5	5.8	14	<25	<5.0	<2.5	2.7	<1,300	--	
MW-5	3/1/2007		10.18	5.01	--	5.17	--	6,400	6.2	3	<2.5	8.7	<25	<5.0	<2.5	<2.5	<1,300	--		
MW-5	6/1/2007		10.18	5.34	--	4.84	--	7,000	3.4	<2.5	<2.5	6.6	11	40	32	<2.5	<2.5	<1,300	--	
MW-5	9/13/2007		10.18	5.11	--	5.07	--	7,000	3.8	<2.5	<2.5	<5.0	8.5	<25	<5.0	<2.5	<2.5	<1,300	--	
MW-5	11/21/2007		10.18	5.34	--	4.84	--	4,700	<2.5	<2.5	<2.5	<5.0	11	310	<5.0	<2.5	<2.5	<1,300	--	
MW-5	2/29/2008		10.18	5.33	--	4.85	--	5,100	1.9	1.8	0.93	4.2	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-5	5/23/2008		10.18	5.38	--	4.80	--	4,600	<2.5	<2.5	<2.5	<5.0	3.9	<25	<5.0	<2.5	<2.5	<1,200	--	
MW-5	9/26/2008		10.18	5.26	--	4.92	--	3,400	1.5	<1.0	<1.0	2.2	2.8	<5.0	<1.0	<1.0	<1.0	<250	--	
MW-5	12/23/2008		10.18	5.04	--	5.14	--	3,300	2.7	1.1	<1.0	3.4	1	<5.0	<1.0	<1.0	<1.0	<250	--	
MW-5	3/9/2009		10.18	4.79	--	5.39	--	4,300	1.9	1.8	<1.0	4	<1.0	<5.0	<1.0	<1.0	<1.0	<250	--	
MW-5	5/28/2009		10.18	5.21	--	4.97	--	4,400	<1.0	<1.0	<1.0	1.8	<1.0	<5.0	<1.0	<1.0	<1.0	<250	2.15	
MW-5	12/10/2009		10.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)		
MW-5	6/29/2010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)		
MW-5	12/30/2010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)		
MW-5	6/29/2011		10.18	5.38	--	4.80	--	3,300	1.7	0.60	<0.50	2.4	1.9	<4.0	--	--	<0.50	--	0.46	
MW-5	1/30/2012		10.18	5.24	--	4.94	--	3,200	2.4	1.1	<0.50	3.6	2.1	17	--	<0.50	--	1.09		
MW-5	6/27/2012		10.18	5.39	--	4.79	--	--	--	--	--	--	--	--	--	--	--	1.52		
MW-5	6/29/2012		--	--	--	--	--	3,000	1.5	<0.50	<0.50	3.5	2.0	<4.0	--	--	<0.50	--	--	
MW-5	12/7/2012		10.18	5.11	--	5.07	--	3,200	2.9	0.79	0.89	2.9	6.2	89	--	--	<0.50	--	1.26	
MW-6	10/12/1993		8.52	6.59	--	1.93	--	63	<0.5	<0.5	<0.5	<0.5	44	--	--	--	--	--	--	
MW-6	2/15/1994		8.52	6.31	--	2.21	--	68	<0.5	<0.5	<0.5	<0.5	38	--	--	--	--	--	3.10	
MW-6	5/11/1994		8.52	6.15	--	2.37	--	68	<0.5	<0.5	<0.5	<0.5	49	--	--	--	--	--	8.70	
MW-6	8/1/1994		8.52	6.46	--	2.06	--	91	<0.5	<0.5	<0.5	<0.5	60	--	--	--	--	--	2.40	
MW-6	10/18/1994		8.52	6.72	--	1.80	--	<50	<0.5	<0.5	<0.5	<0.5	85	--	--	--	--	--	6.00	
MW-6	1/13/1995		8.52	5.95	--	2.57	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	7.00	
MW-6	4/13/1995		8.52	5.44	--	3.08	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	8.50	
MW-6	7/11/1995		8.52	5.68	--	2.84	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	8.40	
MW-6	11/2/1995		8.52	6.57	--	1.95	--	<50	<0.5	<0.5	<0.5	<1.0	35	--	--	--	--	--	8.30	
MW-6	2/5/1996		8.52	6.27	--	2.25	--	<50	<0.5	<10	<10	<10	<100	--	--	--	--	--	2.20	
MW-6	4/24/1996		8.52	5.95	--	2.57	--	<250	<2.5	<5.0	<5.0	<5.0	62	--	--	--	--	--	8.00	
MW-6	7/15/1996		8.52	6.39	--	2.13	--	<250	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	8.00	
MW-6	7/30/1996		8.52	6.44	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/4/1996		8.52	8.05	--	0.47	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/5/1996		8.52	--	--	--	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	7.30	
MW-6	5/17/1997		8.52	6.75	--	1.77	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	8/11/1997		8.52	6.48	--	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/17/1997		8.52	9.27	--	-0.75	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	7.70	
MW-6	1/29/1998		8.52	7.98	--	0.54	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	6/22/1998		8.52	7.68	--	0.84	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	12/30/1998		8.52	6.98	--	1.54	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	3/9/1999		8.52	5.90	--	2.62	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	6/23/1999		8.52	6.93	--	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	9/23/1999		8.52	6.45	--	2.07	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	12/28/1999		8.52	6.33	--	2.19	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	3/22/2000		8.52	5.15	--	3.37	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-6	5/26/2000		8.52	5.72	--	2.80	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	9/15/2000		8.52	6.02	--	2.50	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	12/11/2000		8.52	6.20	--	2.32	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	3/29/2001		8.52	5.34	--	3.18	--	750	<2.5	2.9	<2.5	12	820	--	--	--	--	--	--	
MW-6	6/27/2001		8.52	6.00	--	2.52	--	760	33	<2.5	<2.5	<7.5	968	--	--	--	--	--	--	
MW-6	9/19/2001		8.52	6.22	--	2.30	--	<500	<5.0	<5.0	<5.0	<15	879	--	--	--	--	--	--	
MW-6	12/28/2001		8.52	4.71	--	3.81	--	--	--	--	--	--	--	--	--	--	--	--	(NS)	
MW-6	3/12/2002		8.52	4.96	--	3.56	--	<500	<5.0	<5.0	<5.0	<10	244	--	--	--	--	--	--	
MW-6	6/13/2002		8.52	5.78	--	2.74	--	<250	<2.5	<2.5	<2.5	<5.0	413	--	--	--	--	--	--	
MW-6	9/6/2002		8.52	6.14	--	2.38	--	130	<0.5	<0.5	<0.5	<0.5	240	--	--	--	--	--	--	
MW-6	12/13/2002		8.52	6.05	--	2.47	--	140	<1.0	<1.0	<1.0	<1.0	200	--	--	--	--	--	--	
MW-6	2/19/2003		8.52	5.40	--	3.12	--	<500	<5.0	<5.0	<5.0	<5.0	150	--	--	--	--	--	--	
MW-6	6/6/2003		8.52	5.54	--	2.98	--	1,100	<5.0	<5.0	<5.0	<5.0	140	<200	<5.0	<5.0	21	<1,000	--	
MW-6	8/7/2003		8.52	5.94	--	2.58	--	<500	<5.0	<5.0	<5.0	<5.0	160	<200	<5.0	<5.0	20	<1,000	--	
MW-6	11/20/2003		8.52	5.85	--	2.67	--	95	<0.5	<0.5	<0.5	<0.5	74	<20	<0.5	<0.5	12	<100	--	
MW-6	4/28/2004		8.52	5.45	--	3.07	--	<250	<2.5	<2.5	<2.5	<2.5	120	<100	<2.5	<2.5	12	<500	--	
MW-6	8/26/2004		8.52	6.06	--	2.46	--	<250	<2.5	<2.5	<2.5	<2.5	110	<100	<2.5	<2.5	12	<500	--	
MW-6	12/1/2004		8.52	6.19	--	2.33	--	<250	<2.5	<2.5	<2.5	<2.5	86	<100	<2.5	<2.5	11	<500	--	
MW-6	2/2/2005		8.52	5.20	--	3.32	--	55	<0.5	<0.5	<0.5	<0.5	41	32	<0.5	<0.5	6.2	<100	--	
MW-6	4/25/2005		11.01	5.22	--	5.79	--	64	<0.5	<0.5	<0.5	<0.5	50	45	<0.5	<0.5	6	<100	--	
MW-6	9/30/2005		11.01	5.93	--	5.08	--	200(N)	<2.0	<2.0	<2.0	<4.0	51	280	<2.0	<2.0	4.4	<200	--	
MW-6	12/28/2005		11.01	5.49	--	5.52	--	<50	<0.5	<0.5	<0.5	<1.0	16	160	<1.0	<0.5	2	<100	--	
MW-6	3/23/2006		11.01	4.59	--	6.42	--	<50	<0.5	<0.5	<0.5	<1.0	5.6	35	<1.0	<0.5	0.91	<100	--	
MW-6	6/5/2006		11.01	5.38	--	5.63	--	<50	<0.5	0.54	<0.5	<1.0	14	110	<1.0	<0.5	1.5	<100	--	
MW-6	9/19/2006		11.01	5.93	--	5.08	--	<50	<0.5	<0.5	<0.5	<1.0	8.8	190	<1.0	<0.5	1.4	<250	--	
MW-6	12/1/2006		11.01	6.28	--	4.73	--	<50	<0.5	<0.5	<0.5	<1.0	5.9	98	<1.0	<0.5	0.94	<250	--	
MW-6	3/1/2007		11.01	5.72	--	5.29	--	<50	<0.5	<0.5	<0.5	<1.0	6	96	<1.0	<0.5	0.68	<250	--	
MW-6	6/1/2007		11.01	6.22	--	4.79	--	<50	<0.5	<0.5	<0.5	<1.0	7.4	160	<1.0	<0.5	0.77	<250	--	
MW-6	9/13/2007		11.01	6.57	--	4.44	--	63	<0.5	<0.5	<0.5	<1.0	6.7	120	<1.0	<0.5	0.87	<250	--	
MW-6	11/21/2007		11.01	6.67	--	4.34	--	<50	<0.5	<0.5	<0.5	<1.0	8.4	210	<1.0	<0.5	1	<250	--	
MW-6	2/29/2008		11.01	5.80	--	5.21	--	<50	<0.5	<0.5	<0.5	<1.0	7.1	46	<1.0	<0.5	0.92	<250	--	
MW-6	5/23/2008		11.01	6.53	--	4.48	--	<50	<0.5	<0.5	<0.5	<1.0	8.4	53	<1.0	<0.5	0.95	<250	--	
MW-6	9/26/2008		11.01	6.86	--	4.15	--	<50	<1.0	<1.0	<1.0	<1.0	5.1	56	<1.0	<1.0	<1.0	<250	--	
MW-6	12/23/2008		11.01	6.90	--	4.11	--	<50	<1.0	<1.0	<1.0	<1.0	5.3	54	<1.0	<1.0	<1.0	<250	--	
MW-6	3/9/2009		11.01	6.00	--	5.01	--	<50	<1.0	<1.0	<1.0	<1.0	3.5	62	<1.0	<1.0	<1.0	<250	--	
MW-6	5/28/2009		11.01	6.19	--	4.82	--	<50	<1.0	<1.0	<1.0	<1.0	6.6	55	<1.0	<1.0	<1.0	<250	2.77	
MW-6	12/10/2009		11.01	6.15	--	4.86	--	<50	<0.5	<0.5	<0.5	<1.0	2.0	40	<0.50	<0.50	<0.50	<100	0.60	
MW-6	6/29/2010		11.01	6.18	--	4.83	--	<50	<0.50	<0.50	<0.50	<1.0	2.7	49	<0.50	<0.50	<0.50	<100	0.57	
MW-6	12/30/2010		11.01	5.34	--	5.67	--	<50	<0.50	<0.50	<0.50	<1.0	2.2	44	<0.50	<0.50	<0.50	<250	0.41	
MW-6	6/29/2011		11.01	5.53	--	5.48	2,100	<50	--	--	--	--	3.6	37	--	<0.50	--	0.03	(P)	
MW-6	1/30/2012		11.01	5.89	--	5.12	710	<50	--	--	--	--	4.0	110	--	<0.50	--	0.61	(P)	
MW-6	6/27/2012		11.01	5.68	--	5.33	1,200	<50	--	--	--	--	2.2	49	--	<0.52	--	0.94	(P)	
MW-6	12/7/2012		11.01	5.35	--	5.66	610	<50	--	--	--	--	2.4	300	--	<0.50	--	1.20		
MW-7	10/12/1993		7.61	6.14	--	1.47	--	<50	<0.5	<0.5	<0.5	0.7	<5.0	--	--	--	--	--	--	
MW-7	2/15/1994		7.61	5.88	--	1.73	--	78	<0.5	<0.5	<0.5	0.6	<5.0	--	--	--	--	4.00		
MW-7	5/11/1994		7.61	5.76	--	1.85	--	70	<0.5	<0.5	<0.5	0.9	12	--	--	--	--	9.10		
MW-7	8/1/1994		7.61	5.97	--	1.64	--	77	<0.5	<0.5	<0.5	0.5	182	--	--	--	--	2.50		
MW-7	10/18/1994		7.61	6.24	--	1.37	--	<50	<0.5	<0.5	<0.5	<0.5	52	--	--	--	--	6.30		
MW-7	1/13/1995		7.61	5.39	--	2.22	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	8.20		
MW-7	4/13/1995		7.61	5.17	--	2.44	--	63	<0.5	<0.5	<0.5	1.4	--	--	--	--	--	8.40		
MW-7	7/11/1995		7.61	5.25	--	2.36	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	7.90		
MW-7	11/2/1995		7.61	6.19	--	1.42	--	<50	<0.5	<0.5	<0.5	<1.0	55	--	--	--	--	8.00		
MW-7	2/5/1996		7.61	5.69	--	1.92	--	<50	<0.5	<0.5	<1.0	<1.0	40	--	--	--	--	1.90		
MW-7	4/24/1996		7.61	5.59	--	2.02	--	<250	<2.5	<5.0	<5.0	<5.0	53	--	--	--	--	8.20		
MW-7	7/15/1996		7.61	6.07	--	1.54	--	<250	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	7.80		
MW-7	7/30/1996		7.61	6.04	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	11/4/1996		7.61	7.76	--	-0.15	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	11/5/1996		7.61	--	--	--	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	7.80		

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-7	5/17/1997		7.61	6.42	--	1.19	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/11/1997		7.61	6.06	--	1.55	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/17/1997		7.61	9.07	--	-1.46	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	7.10	
MW-7	1/29/1998		7.61	7.44	--	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	6/22/1998		7.61	7.39	--	0.22	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	12/30/1998		7.61	5.51	--	2.10	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	3/9/1999		7.61	5.57	--	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	6/23/1999		7.61	6.69	--	0.92	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	9/23/1999		7.61	6.23	--	1.38	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	12/28/1999		7.61	6.08	--	1.53	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	3/22/2000		7.61	4.88	--	2.73	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	5/26/2000		7.61	5.42	--	2.19	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	9/15/2000		7.61	5.79	--	1.82	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	12/11/2000		7.61	5.93	--	1.68	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	3/29/2001		7.61	5.24	--	2.37	--	600	<2.5	<2.5	<2.5	<7.5	636	--	--	--	--	--	--	
MW-7	6/27/2001		7.61	5.69	--	1.92	--	590	<2.5	<2.5	<2.5	<7.5	739	--	--	--	--	--	--	
MW-7	9/19/2001		7.61	5.89	--	1.72	--	560	<5.0	<5.0	<5.0	<15	1,190	--	--	--	--	--	--	
MW-7	12/28/2001		7.61	4.53	--	3.08	--	910	23	<2.5	<2.5	<5.0	856	--	--	--	--	--	--	
MW-7	3/12/2002		7.61	4.71	--	2.90	--	620	<2.5	<2.5	<2.5	<5.0	675	--	--	--	--	--	--	
MW-7	6/13/2002		7.61	5.21	--	2.40	--	860	<2.5	<2.5	<2.5	<5.0	1,470	--	--	--	--	--	--	
MW-7	9/6/2002		7.61	5.77	--	1.84	--	350	<2.5	<2.5	<2.5	<2.5	690	--	--	--	--	--	--	
MW-7	12/13/2002		7.61	5.65	--	1.96	--	1,300	<10	<10	<10	<10	1,800	--	--	--	--	--	--	
MW-7	2/19/2003		7.61	5.07	--	2.54	--	1,700	<10	<10	<10	<10	1,600	--	--	--	--	--	--	
MW-7	6/6/2003		7.61	5.27	--	2.34	--	1,000	<5.0	<5.0	<5.0	<5.0	510	<200	<5.0	<5.0	41	<1,000	--	
MW-7	8/7/2003		7.61	5.52	--	2.09	--	510	<5.0	<5.0	<5.0	<5.0	520	<200	<5.0	<5.0	43	<1,000	--	
MW-7	11/20/2003		7.61	5.79	--	1.82	--	330	<2.5	<2.5	<2.5	<2.5	270	1,300	<2.5	<2.5	8.9	<500	--	
MW-7	4/28/2004		7.61	5.20	--	2.41	--	<250	<2.5	<2.5	<2.5	<2.5	71	880	<2.5	<2.5	3.5	<500	--	
MW-7	8/26/2004		7.61	5.65	--	1.96	--	450	<2.5	<2.5	<2.5	<2.5	150	4,800	<2.5	<2.5	7.8	<500	--	
MW-7	12/1/2004		7.61	5.79	--	1.82	--	100	<1.0	<1.0	<1.0	<1.0	25	1,400	<1.0	<1.0	1.1	<200	--	
MW-7	2/2/2005		7.61	4.92	--	2.69	--	81	<0.5	<0.5	<0.5	<0.5	31	830	<0.5	<0.5	1.8	<100	--	
MW-7	4/25/2005		10.11	4.88	--	5.23	--	67	<0.5	<0.5	<0.5	<0.5	41	520	<0.5	<0.5	2.1	<100	--	
MW-7	9/30/2005		10.11	5.62	--	4.49	--	58(N)	<0.5	<0.5	<0.5	<1.0	18	450	<0.5	<0.5	1.5	<50	--	
MW-7	12/28/2005		10.11	4.93	--	5.18	--	<500	<5.0	<5.0	<5.0	<10	7.4	1,600	<10	<5.0	<5.0	<1,000	--	
MW-7	3/23/2006		10.11	4.63	--	5.48	--	71	<0.5	<0.5	<0.5	<1.0	25	340	<1.0	<0.5	1.7	<100	--	
MW-7	6/5/2006		10.11	5.08	--	5.03	--	57	<0.5	<0.5	<0.5	<1.0	14	200	<1.0	<0.5	1.2	<100	--	
MW-7	9/19/2006		10.11	5.60	--	4.51	--	<50	<0.5	<0.5	<0.5	<1.0	14	280	<1.0	<0.5	1.6	<250	--	
MW-7	12/1/2006		10.11	6.00	--	4.11	--	<250	<2.5	<2.5	<2.5	<5.0	6.7	1,400	<5.0	<2.5	<2.5	<1,300	--	
MW-7	3/1/2007		10.11	5.69	--	4.42	--	<250	<2.5	<2.5	<2.5	<5.0	4	1,000	<5.0	<2.5	<2.5	<1,300	--	
MW-7	6/1/2007		10.11	5.97	--	4.14	--	120	<0.5	<0.5	<0.5	<1.0	7.5	600	<1.0	<0.5	0.59	<250	--	
MW-7	9/13/2007		10.11	6.31	--	3.80	--	<50	<0.5	<0.5	<0.5	<1.0	10	260	<1.0	<0.5	0.8	<250	--	
MW-7	11/21/2007		10.11	6.39	--	3.72	--	55	<0.5	<0.5	<0.5	<1.0	8.4	1,500	<1.0	<0.5	0.87	<250	--	
MW-7	2/29/2008		10.11	5.78	--	4.33	--	<50	<0.5	<0.5	<0.5	<1.0	6.2	960	<1.0	<0.5	0.73	<250	--	
MW-7	5/23/2008		10.11	6.27	--	3.84	--	53	<0.5	<0.5	<0.5	<1.0	9.6	300	<1.0	<0.5	0.96	<250	--	
MW-7	9/26/2008		10.11	6.52	--	3.59	--	<50	<1.0	<1.0	<1.0	<1.0	7.5	800	<1.0	<1.0	<1.0	<250	--	
MW-7	12/23/2008		10.11	6.40	--	3.71	--	59	<1.0	<1.0	<1.0	<1.0	5.7	3,500	<1.0	<1.0	<1.0	<250	--	
MW-7	3/9/2009		10.11	5.65	--	4.46	--	<50	<1.0	<1.0	<1.0	<1.0	4.4	1,300	<1.0	<1.0	<1.0	<250	--	
MW-7	5/28/2009		10.11	5.91	--	4.20	--	<50	<1.0	<1.0	<1.0	<1.0	5.7	110	<1.0	<1.0	<1.0	<250	1.77	
MW-7	12/10/2009		10.11	5.88	--	4.23	--	62	<0.50	<0.50	<0.50	<1.0	6.5	1,200	<0.50	<0.50	0.56	<100	0.56	
MW-7	6/29/2010		10.11	5.48	--	4.63	--	<50	<0.50	<0.50	<0.50	<1.0	3.0	2,000	<0.50	<0.50	<0.50	<100	0.63	
MW-7	12/30/2010		10.11	4.80	--	5.31	--	<50	<0.50	<0.50	<0.50	<1.0	5.6	3,900	<0.50	<0.50	0.58	<250	0.65	
MW-7	6/29/2011		10.11	5.18	--	4.93	--	<500	<5.0	<5.0	<5.0	<10	<5.0	2,200	--	<5.0	--	0.47	(P)	
MW-7	1/30/2012		10.11	5.29	--	4.82	--	<50	<0.50	<0.50	<0.50	<1.0	4.0	2,700	--	<0.50	--	0.69	(P)	
MW-7	6/27/2012		10.11	5.19	--	4.92	--	<50	<0.50	<0.50	<0.50	<1.0	2.7	1,400	--	<0.56	--	1.23	(P)	
MW-7	12/7/2012		10.11	4.78	--	5.33	--	<50	<0.50	<0.50	<0.50	<1.0	3.0	2,600	--	<0.50	--	1.21		
MW-8	10/12/1993		8.60	5.86	--	2.74	--	<50	<0.5	<0.5	<0.5	<0.5	11	--	--	--	--	--	--	
MW-8	2/15/1994		8.60	5.50	--	3.10	--	380	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	3.30		
MW-8	5/11/1994		8.60	5.09	--	3.51	--	330	<0.5	1.2	<0.5	1.9	<5.0	--	--	--	--	8.50		
MW-8	8/1/1994		8.60	5.20	--	3.40	--	260	<0.5	1.2	2.9	5.8	<5.0	--	--	--	--	2.30		

Table 2
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Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes	
MW-8	10/18/1994		8.60	5.70	--	2.90	--	82	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	6.40		
MW-8	1/13/1995		8.60	4.96	--	3.64	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	6.90		
MW-8	4/13/1995		8.60	5.40	--	3.20	--	270	<0.5	<0.5	<0.5	4.4	--	--	--	--	--	--	8.40		
MW-8	7/11/1995		8.60	6.01	--	2.59	--	320	<0.5	<0.5	<0.5	3.5	--	--	--	--	--	--	8.00		
MW-8	11/2/1995		8.60	6.81	--	1.79	--	100	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	--	--	8.70	
MW-8	2/5/1996		8.60	6.12	--	2.48	--	<50	<0.5	<10	<10	<10	<100	--	--	--	--	--	--	1.50	
MW-8	4/24/1996		8.60	6.23	--	2.37	--	<50	<5.0	<10	<10	<10	<100	--	--	--	--	--	--	8.70	
MW-8	7/15/1996		8.60	6.70	--	1.90	--	<250	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	8.40	
MW-8	7/30/1996		8.60	6.64	--	1.96	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	11/4/1996		8.60	8.36	--	0.24	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	11/5/1996		8.60	--	--	--	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	7.20	
MW-8	5/17/1997		8.60	7.03	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	8/11/1997		8.60	6.05	--	2.55	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	11/17/1997		8.60	9.14	--	-0.54	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	7.70	
MW-8	1/29/1998		8.60	7.90	--	0.70	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	6/22/1998		8.60	7.72	--	0.88	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	12/30/1998		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-8	3/9/1999		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-8	6/23/1999		8.60	4.70	--	3.90	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	9/23/1999		8.60	4.22	--	4.38	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	12/28/1999		8.60	4.12	--	4.48	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	3/22/2000		8.60	4.71	--	3.89	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	5/26/2000		8.60	4.98	--	3.62	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	9/15/2000		8.60	4.62	--	3.98	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	12/11/2000		8.60	4.77	--	3.83	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	3/29/2001		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-8	6/27/2001		8.60	5.11	--	3.49	--	570	<2.5	<2.5	<2.5	2.6	<7.5	3.4	--	--	--	--	--		
MW-8	9/19/2001		8.60	5.00	--	3.60	--	<500	<5.0	<5.0	<5.0	<15	<5.0	--	--	--	--	--	--		
MW-8	12/28/2001		8.60	4.15	--	4.45	--	440	<0.5	<0.5	<0.5	0.98	<1.0	6.3	--	--	--	--	--		
MW-8	3/12/2002		8.60	4.35	--	4.25	--	330	<2.5	<2.5	<2.5	<2.5	<5.0	8.7	--	--	--	--	--		
MW-8	6/13/2002		8.60	5.09	--	3.51	--	<500	<5.0	<5.0	<5.0	<10	16	--	--	--	--	--	--		
MW-8	9/6/2002		8.60	5.18	--	3.42	--	98	<0.5	<0.5	<0.5	<0.5	76	--	--	--	--	--	--		
MW-8	12/13/2002		8.60	4.84	--	3.76	--	120	<0.5	<0.5	<0.5	0.94	0.52	140	--	--	--	--	--		
MW-8	2/19/2003		8.60	4.45	--	4.15	--	<2,500	<25	<25	<25	<25	<25	800	--	--	--	--	--		
MW-8	6/6/2003		8.60	5.00	--	3.60	--	<50,000	<500	<500	<500	<500	<500	17,000	<20,000	<500	<500	<500	<100,000	--	
MW-8	8/7/2003		8.60	4.84	--	3.76	--	<2,500	<25	<25	<25	<25	<25	2,400	<1,000	<25	<25	<25	<5,000	--	
MW-8	11/20/2003		8.60	4.48	--	4.12	--	<2,500	<25	<25	<25	<25	1,400	4,100	<25	<25	<25	<5,000	--		
MW-8	4/28/2004		8.60	9.66	--	-1.06	--	730	<2.5	<2.5	<2.5	<2.5	170	42,000	<2.5	<2.5	<2.5	<500	--		
MW-8	8/26/2004		8.60	4.73	--	3.87	--	<2,500	<25	<25	<25	<25	170	47,000	<25	<25	<25	<25	--		
MW-8	12/1/2004		8.60	4.80	--	3.80	--	<250	<2.5	<2.5	<2.5	<2.5	36	9,700	<2.5	<2.5	<2.5	<500	--		
MW-8	2/2/2005		8.60	4.50	--	4.10	--	810	<0.5	<0.5	<0.5	<0.5	41	<20	<0.5	0.72	0.64	<100	--		
MW-8	4/25/2005		11.08	4.99	--	6.09	--	1,400	<12	<12	<12	<12	32	45,000	<12	<12	<12	<2,500	--		
MW-8	9/30/2005		11.08	4.89	--	6.19	--	840	<5.0	<5.0	<5.0	<10	17	8,500	<5.0	<5.0	<5.0	<500	--		
MW-8	12/28/2005		11.08	4.81	--	6.27	--	<250	<2.5	<2.5	<2.5	<5.0	17	7,400	<5.0	<2.5	<2.5	<500	--		
MW-8	3/23/2006		11.08	4.22	--	6.86	--	660	<2.5	<2.5	<2.5	<5.0	21	11,000	<5.0	<2.5	<2.5	<500	--		
MW-8	6/5/2006		11.08	4.63	--	6.45	--	<2,500	<25	<25	<25	<50	30	34,000	<50	<25	<25	<5,000	--		
MW-8	9/19/2006		11.08	4.82	--	6.26	--	<500	<5.0	<5.0	<5.0	<10	17	7,500	<10	<5.0	<5.0	<2,500	--		
MW-8	12/1/2006		11.08	4.83	--	6.25	--	350	<2.5	<2.5	<2.5	<5.0	16	1,900	<5.0	<2.5	<2.5	<1,300	--		
MW-8	3/1/2007		11.08	4.43	--	6.65	--	<500	<5.0	<5.0	<5.0	<10	20	6,200	<10	<5.0	<5.0	<2,500	--		
MW-8	6/1/2007		11.08	4.74	--	6.34	--	<500	<5.0	<5.0	<5.0	<10	8.7	3,700	<10	<5.0	<5.0	<2,500	--		
MW-8	9/13/2007		11.08	5.25	--	5.83	--	230	<0.5	<0.5	<0.5	<1.0	9.4	630	<1.0	<0.5	<0.5	<250	--		
MW-8	11/21/2007		11.08	5.13	--	5.95	--	350	<0.5	<0.5	<0.5	<1.0	8.7	360	<1.0	<0.5	<0.5	<250	--		
MW-8	2/29/2008		11.08	4.75	--	6.33	--	<1,000	<10	<10	<10	<20	16	7,500	<20	<10	<10	<5,000	--		
MW-8	5/23/2008		11.08	5.01	--	6.07	--	<1,000	<10	<10	<10	<20	15	4,800	<20	<10	<10	<5,000	--		
MW-8	9/26/2008		11.08	5.43	--	5.65	--	190	<1.0	<1.0	<1.0	<1.0	14	1,800	<1.0	<1.0	<1.0	<250	--		
MW-8	12/23/2008		11.08	5.25	--	5.83	--	270	<1.0	<1.0	<1.0	<1.0	10	770	<1.0	<1.0	<1.0	<250	--		
MW-8	3/9/2009		11.08	4.36	--	6.72	--	210	<1.0	<1.0	<1.0	<1.0	15	3,300	<1.0	<1.0	<1.0	<250	--		
MW-8	5/28/2009		11.08	4.98	--	6.10	--	270	<1.0	<1.0	<1.0	<1.0	6.5	710	<1.0	<1.0	<1.0	<250	2.14		
MW-8	12/10/2009		11.08	5.06	--	6.02	--	90	<0.50	<0.50	<0.50	<1.0	9.0	960	<0.50	<0.50	<0.50	<100	0.47		

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-8	6/29/2010		11.08	4.71	--	6.37	--	170	<0.50	<0.50	<0.50	<1.0	10	1,700	<0.50	<0.50	<0.50	<100	0.38	(P)
MW-8	12/30/2010		11.08	4.37	--	6.71	--	190	<0.50	<0.50	<0.50	<1.0	6.6	1,500	<0.50	<0.50	<0.50	<250	0.52	(P)
MW-8	6/29/2011		11.08	4.57	--	6.51	1,000	140	--	--	--	--	4.7	2,000	--	--	<0.50	--	0.62	(P)
MW-8	1/30/2012		11.08	4.63	--	6.45	1,500	240	--	--	--	--	3.8	250	--	--	<0.50	--	1.52	(P)
MW-8	6/27/2012		11.08	4.49	--	6.59	1,100	300	--	--	--	--	2.2	270	--	--	<0.50	--	1.09	(P)
MW-8	12/7/2012		11.08	3.99	--	7.09	800	210	--	--	--	--	1.2	31	--	--	<0.50	--	1.37	
MW-9	10/12/1993		8.08	5.66	0.08	2.48	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	2/15/1994		8.08	5.32	0.05	2.80	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/11/1994		8.08	5.57	--	2.51	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	8/1/1994		8.08	6.25	--	1.83	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	10/18/1994		8.08	5.59	0.13	2.59	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	1/13/1995		8.08	4.42	0.14	3.77	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/13/1995		8.08	4.06	0.11	4.10	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	7/11/1995		8.08	4.21	0.08	3.93	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/2/1995		8.08	5.22	0.05	2.90	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	2/5/1996		8.08	4.76	0.01	3.33	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/24/1996		8.08	4.62	0.09	3.53	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	7/15/1996		8.08	5.11	0.04	3.00	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	7/30/1996		8.08	5.15	--	2.93	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/4/1996		8.08	6.75	0.01	1.34	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/17/1997		8.08	5.42	--	2.66	--	97,000	16,000	7,700	2,300	18,400	40,000	--	--	--	--	--	7.00	
MW-9	5/17/1997	Dup	8.08	5.42	--	2.66	--	97,000	16,000	8,200	2,300	17,300	39,000	--	--	--	--	--	--	(Dup)
MW-9	8/11/1997		8.08	5.37	--	2.71	--	71,000	12,000	340	2,100	4,300	26,000	--	--	--	--	--	9.10	
MW-9	8/11/1997	Dup	8.08	5.37	--	2.71	--	100,000	14,000	360	3,200	5,790	27,000	--	--	--	--	--	--	(Dup)
MW-9	11/17/1997		8.08	5.62	(Sheen)	2.46	--	100,000	22,000	4,800	3,100	17,900	32,000	--	--	--	--	--	8.30	
MW-9	11/17/1997	Dup	8.08	5.62	--	2.46	--	100,000	24,000	5,300	3,500	19,300	35,000	--	--	--	--	--	--	(Dup)(Sheen)
MW-9	1/29/1998		8.08	4.07	(Sheen)	4.01	--	250,000	20,000	21,000	3,100	18,500	110,000	--	--	--	--	--	6.60	
MW-9	1/29/1998	Dup	8.08	4.07	--	4.01	--	250,000	20,000	20,000	3,100	18,400	110,000	--	--	--	--	--	--	(Dup)(Sheen)
MW-9	6/22/1998		8.08	4.28	--	3.80	--	280,000	21,000	18,000	3,800	21,200	110,000	--	--	--	--	--	5.80	
MW-9	6/22/1998	Dup	8.08	4.28	--	3.80	--	290,000	20,000	17,000	3,800	21,200	110,000	--	--	--	--	--	--	(Dup)
MW-9	12/30/1998		8.08	4.95	--	3.13	--	150,000	10,000	3,800	2,000	9,600	86,000	--	--	--	--	--	--	
MW-9	3/9/1999		8.08	3.95	--	4.13	--	82,000	6,800	570	1,400	4,700	100,000	--	--	--	--	--	--	
MW-9	6/23/1999		8.08	5.12	--	2.96	--	41,000	11,000	820	2,300	5,200	92,000	--	--	--	--	--	--	
MW-9	9/23/1999		8.08	4.74	--	3.34	--	57,000	12,000	5,400	1,900	9,500	89,000	--	--	--	--	--	--	
MW-9	12/28/1999		8.08	4.58	--	3.50	--	46,000	15,000	490	2,500	3,500	100,000	--	--	--	--	--	--	
MW-9	3/22/2000		8.08	3.90	--	4.18	--	86,000	18,000	1,800	2,300	6,800	120,000	--	--	--	--	--	--	
MW-9	5/26/2000		8.08	4.15	--	3.93	--	82,000	17,000	680	1,800	3,800	100,000	--	--	--	--	--	--	
MW-9	9/6/2000		8.08	4.47	--	3.61	--	100,000	19,000	280	2,400	6,400	84,000	--	--	--	--	--	--	
MW-9	9/15/2000		8.08	4.34	--	3.74	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	12/11/2000		8.08	4.41	--	3.67	--	110,000	14,400	768	2,610	6,670	123,000	--	--	--	--	--	--	
MW-9	3/29/2001		8.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-9	6/26/2001		8.08	5.03	0.13	3.15	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/19/2001		8.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	12/28/2001		8.08	3.73	--	4.35	--	110,000	15,000	1,500	2,280	5,530	60,900	--	--	--	--	--	--	
MW-9	3/12/2002		8.08	4.93	--	3.15	--	88,000	12,500	2,600	2,800	8,950	44,000	--	--	--	--	--	--	
MW-9	6/13/2002		8.08	4.13	--	3.95	--	59,000	9,870	161	2,560	5,560	35,600	--	--	--	--	--	--	
MW-9	9/6/2002		8.08	4.39	--	3.69	--	47,000	10,000	<100	2,100	4,600	31,000	--	--	--	--	--	--	
MW-9	12/13/2002		8.08	3.97	--	4.11	--	57,000	11,000	1,000	2,300	5,800	28,000	--	--	--	--	--	--	
MW-9	2/19/2003		8.08	3.25	--	4.83	--	76,000	10,000	2,100	3,000	8,900	11,000	--	--	--	--	--	--	
MW-9	6/6/2003		8.08	3.94	--	4.14	--	66,000	9,000	<500	2,500	4,400	17,000	<20,000	<500	<500	<500	<100,000	--	
MW-9	8/7/2003		8.08	3.92	(Sheen)	4.16	--	53,000	7,600	<250	2,600	4,700	17,000	<10,000	<250	<250	350	<50,000	--	
MW-9	11/20/2003		8.08	4.89	--	3.19	--	40,000	6,800	<250	860	1,100	16,000	12,000	<250	<250	<250	<50,000	--	
MW-9	4/28/2004		8.08	3.19	(Sheen)	4.89	--	47,000	5,600	690	2,300	6,800	8,500	<5,000	<120	<120	170	<25,000	--	
MW-9	8/26/2004		8.08	3.61	--	4.47	--	35,000	3,700	500	1,300	5,300	6,500	2,600	<50	<50	140	--	--	
MW-9	12/1/2004		8.08	3.99	--	4.09	--	36,000	3,500	<250	1,200	4,300	8,300	<10,000	<250	<250	<250	<50,000	--	
MW-9	2/2/2005		8.08	3.71	(Sheen)	4.37	--	21,000	1,800	130	670	2,000	3,600	5,600	<50	<50	88	<10,000	--	
MW-9	4/25/2005		10.55	3.31	(Sheen)	7.24	--	5,900	190	<50	120	77	540	1,400	<5.0	<5.0	14	<1,000	--	
MW-9	9/30/2005		10.55	4.02	--	6.53	--	26,000	2,400	360	1,600	4,200	2,400	520	<20	<20	61	<2,000	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	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)	DO (mg/l)	Notes
MW-11	2/29/2008		14.55	9.76	--	4.79	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-11	5/23/2008		14.55	10.51	--	4.04	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-11	9/26/2008		14.55	10.51	--	4.04	--	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	--	
MW-11	12/23/2008		14.55	10.74	--	3.81	--	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	--	
MW-11	3/9/2009		14.55	9.50	--	5.05	--	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	--	
MW-11	5/28/2009		14.55	10.40	--	4.15	--	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<250	3.06	
MW-11	12/10/2009		14.55	10.41	--	4.14	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<100	1.03	
MW-11	6/29/2010		14.55	10.19	--	4.36	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<100	0.47	
MW-11	12/30/2010		14.55	9.22	--	5.33	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<250	0.63	
MW-11	6/29/2011		14.55	9.40	--	5.15	--	--	--	--	--	<0.50	--	--	--	--	--	--	0.75	
MW-11	1/30/2012		14.55	9.49	--	5.06	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-11	6/27/2012		14.55	9.70	--	4.85	--	--	--	--	--	<0.50	--	--	--	--	--	--	1.13	
MW-11	12/7/2012		14.55	8.85	--	5.70	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)	

Notes:

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

GRO = Gasoline range organics

DRO = Diesel range organics

TOG = Total petroleum hydrocarbons as oil and grease

ORO = Motor oil range organics

MTBE = Methyl tert-butyl ether

HVOC = Halogenated volatile organic compounds

DO = Dissolved Oxygen; rounded to the nearest tenth

TOC = Top of casing

P/NP = Well purged/not purged prior to sampling

GWE adjusted assuming a specific gravity of 0.75 for free product.

mg/L = Milligrams per liter

µg/L = Micrograms per liter

< = Analyte was not detected above the specified method detection limit

-- = Not measured or analyzed

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

DUP = Duplicate sample

INA = Well inaccessible; not sampled

NS = Well not sampled

NSP = Not sampled in accordance with the sampling plan.

a = DRO and ORO samples collected from MW-3 on 12/10/2009.

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

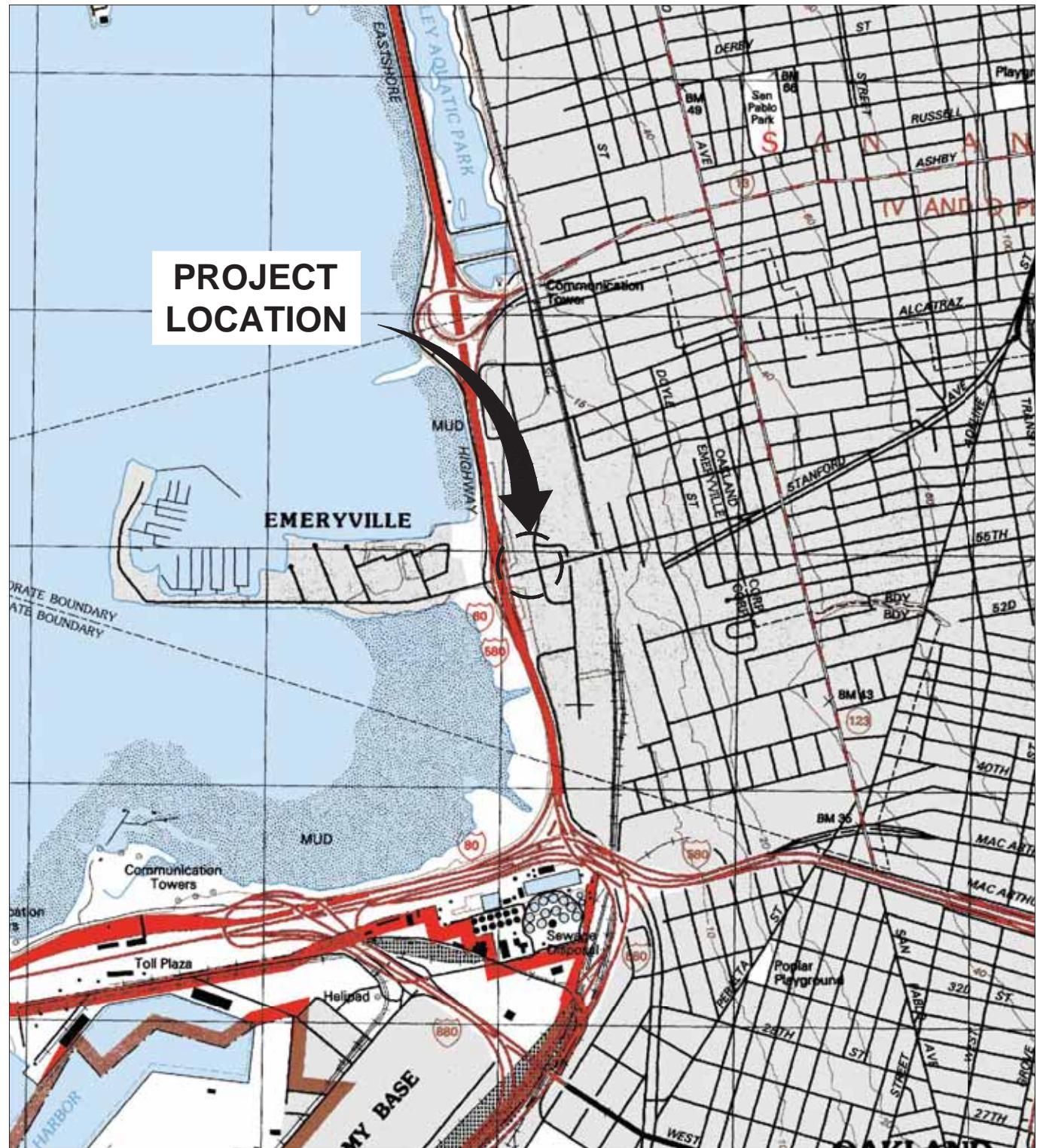
Beginning in the first quarter 2003, TPHg and VOCs analyzed by EPA Method 8260B.

Beginning in the fourth quarter 2009, TOG replaced by ORO by EPA Method 8015B.

Note: The data within this table collected prior to December 2009 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

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FIGURES



IMAGES: PROJECTNAME: ---
XREFS: Oakland West.jpg

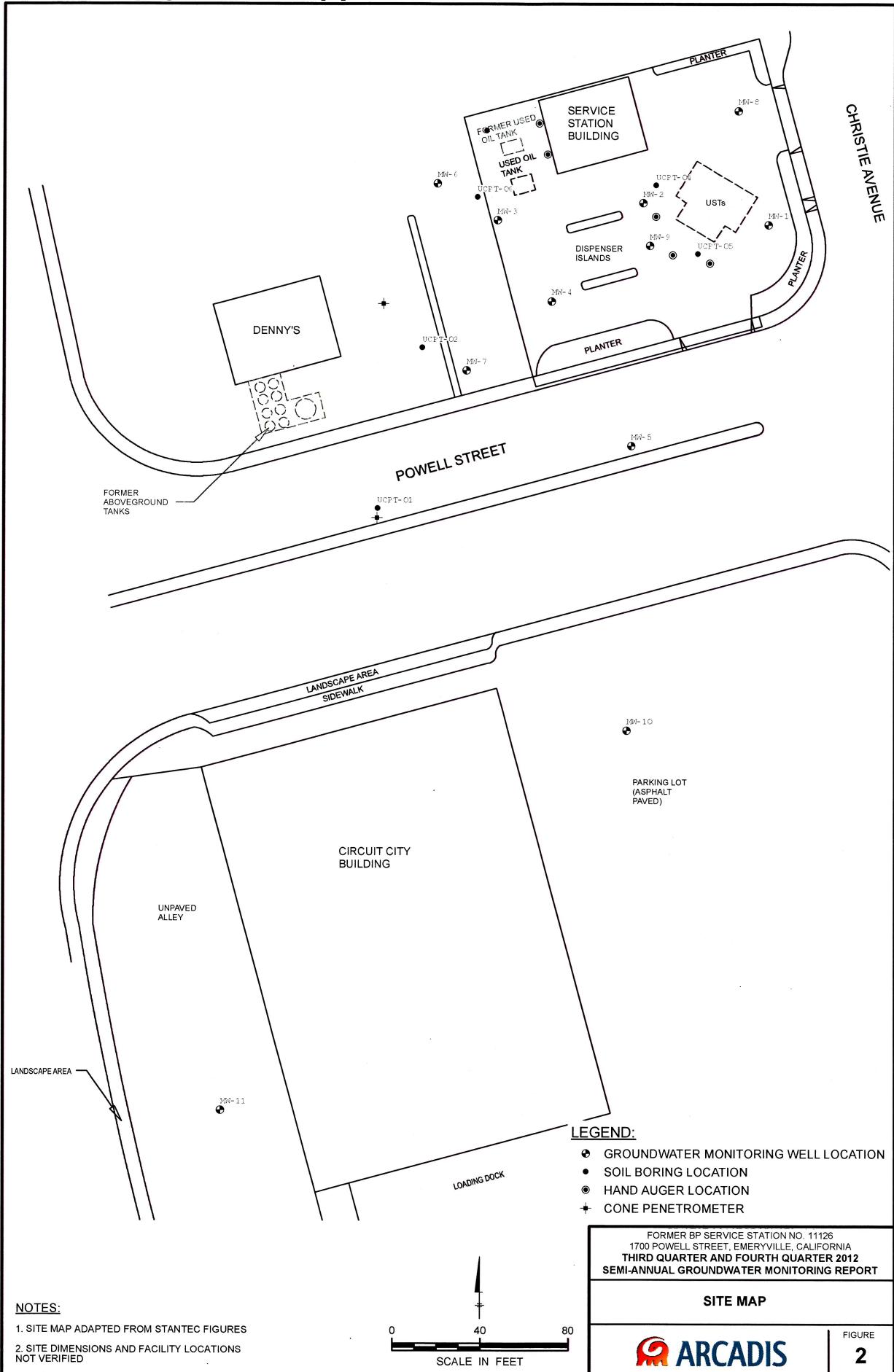
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Approximate Scale: 1 in. = 2000 ft.

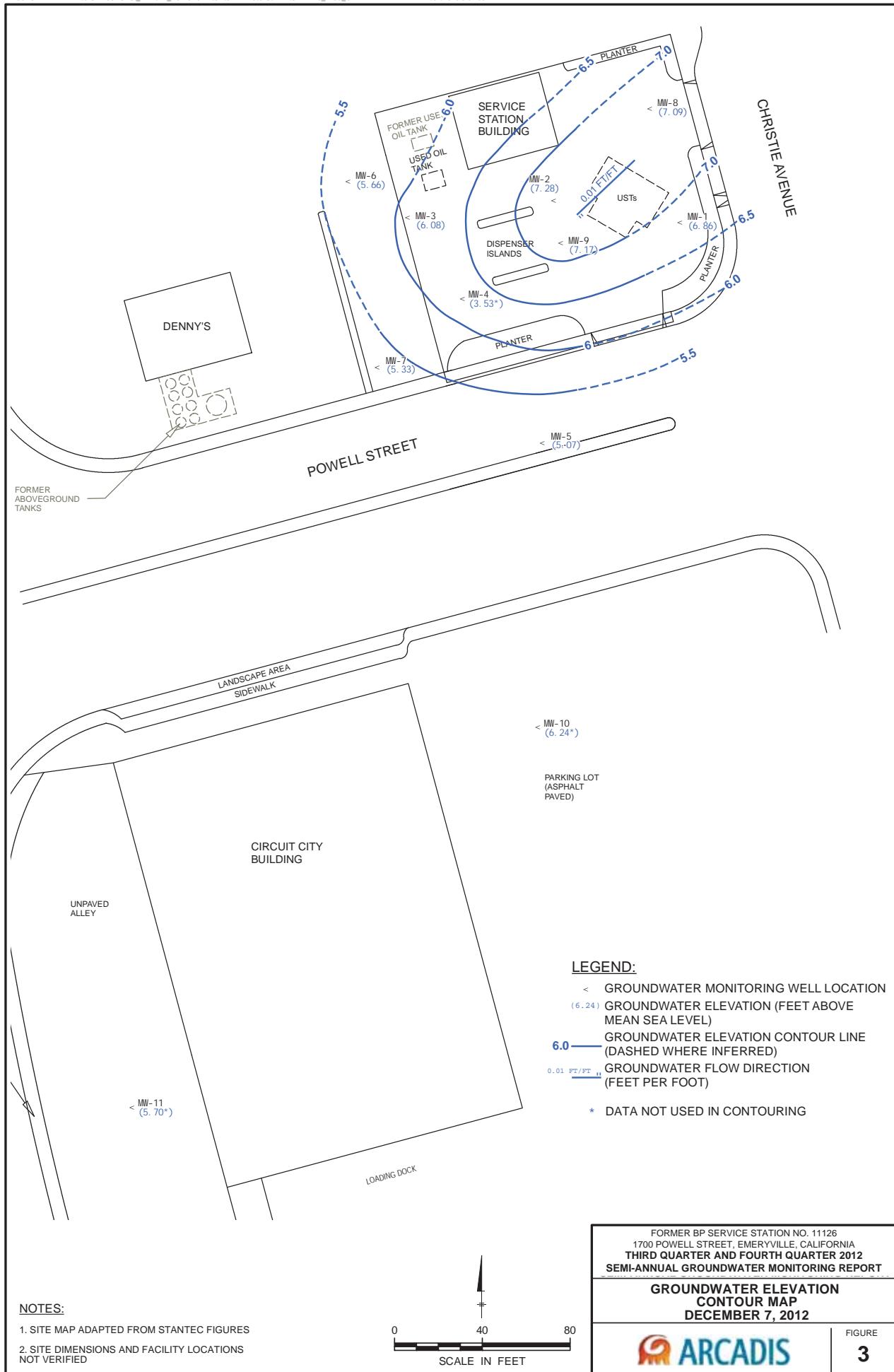


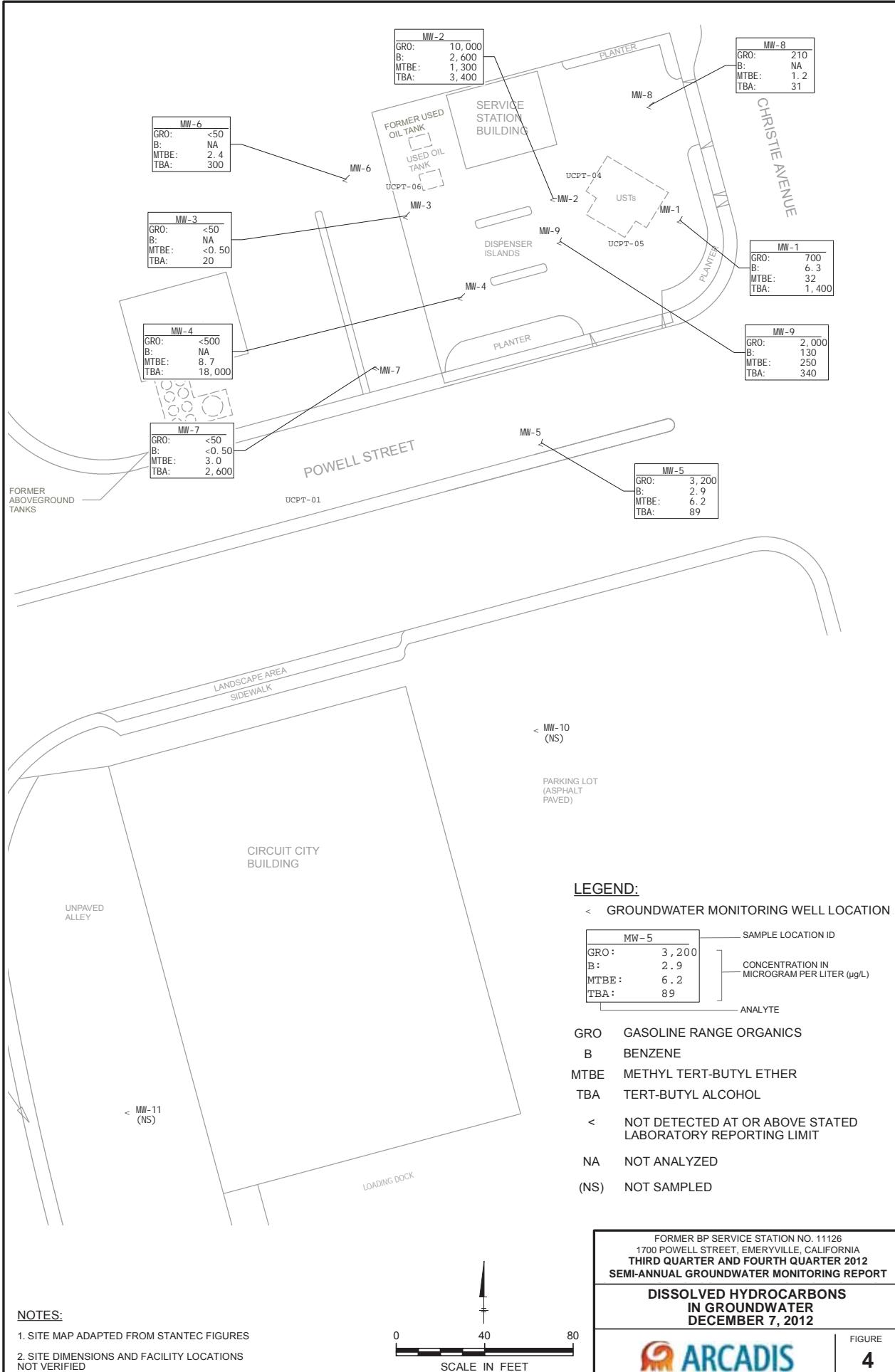
FORMER BP SERVICE STATION NO. 11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA
THIRD QUARTER AND FOURTH QUARTER 2012
SEMI-ANNUAL GROUNDWATER MONITORING REPORT

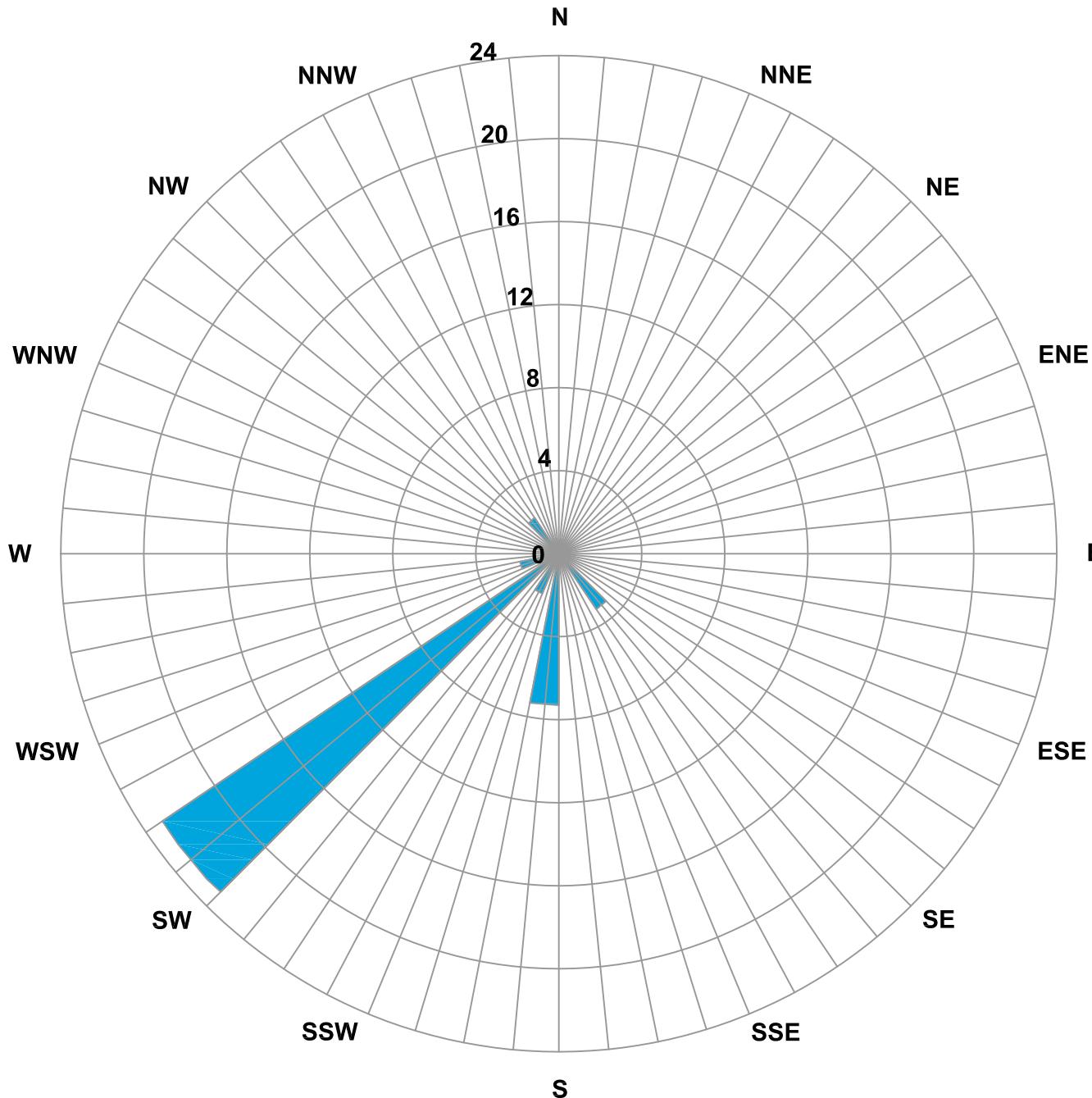
SITE VICINITY MAP

FIGURE
1









LEGEND

CONCENTRIC CIRCLES REPRESENT 41 MONITORING EVENTS CONDUCTED BETWEEN THE FIRST QUARTER 2001 AND THE FOURTH QUARTER 2012.

■ GROUNDWATER FLOW DIRECTION

FORMER BP SERVICE STATION NO. 11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA
THIRD QUARTER AND FOURTH QUARTER 2012 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

GROUNDWATER FLOW DIRECTION ROSE DIAGRAM



Appendix A

Previous Investigations and Site
History Summary

Former BP Station No. 11126

A soil gas survey was conducted on April 10, 1989, by Target Environmental Services, Inc. on behalf of Mobil Oil Corporation prior to the transfer of ownership of the property to BP Oil (BP). Soil gas samples were collected from 19 sampling points at an approximate depth of 4 feet below ground surface (ft bgs) across the site (locations were not provided in historic documents). 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 ($\mu\text{g}/\text{L}$), with the highest detections in the vicinity of the pump islands and east of the USTs (TES 1989; SECOR 2007).

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 (the actual size is not documented) in a separate excavation. Soil samples collected from beneath the removed waste oil UST and sidewalls excavation contained detectable concentrations of total oil and grease (TOG), total petroleum hydrocarbons as diesel (TPHd), and total petroleum hydrocarbons as gasoline (TPHg). Additional soil samples were collected from the sidewalls of the new waste oil UST excavation (NWO-1 through NWO-4), located approximately 20 feet (ft) south of the former waste oil tank. All analytes were below laboratory reporting limits with the exception of TPHd and TOG which were both detected at NWO-4. TPHd was detected at 370 parts per million and TOG was detected at 10,000 ppm.

The UST pit also contained detectable concentrations of TOG and TPHd (Alisto 1994). 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, Hazardous Materials Division (EMCON 1994; SECOR 2007).

In October 1992, 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 4 ft to 20 ft 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 up to a depth of 5.5 ft bgs from the borings advanced in the immediate vicinity of the USTs and dispenser islands contained detectable concentrations of TPHg and benzene.

Former BP Station No. 11126

Groundwater samples collected from the wells in November 1992 also contained detectable concentrations of TPHd, TPHg and benzene (SECOR 2007).

In September 1993, Alisto installed five additional groundwater monitoring wells: MW- 5 through MW-7 off-site and MW-8 and MW-9) on-site. Soil samples collected from approximately 4.5 ft bgs from borings MW-5 and MW-9 contained detectable concentrations of TPHg and benzene, toluene, ethylbenzene, and xylenes (BTEX). Well MW-9, which is located in the area of the product dispensers contained separate phase hydrocarbons (SPH) at an initial thickness of 0.08 ft. A product recovery canister was subsequently installed to assist in the removal of SPH from beneath the site (SECOR 2007).

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 [CP]) 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 onsite using cone penetrometer testing (CPT) equipment. Refusal was encountered in TB-2 and THP-3 at 10 ft and 4.5 ft bgs, respectively. Soil samples collected during this investigation contained detectable concentrations of TPHd, TPHg, TOG and benzene. Hydropunch™ groundwater samples collected during this investigation contained detectable concentrations of TPHg, TOG, 1,2-dichloroethane (1,2-DCA,), and 1,2-dichlorethane (1,2-DCE) (EMCON 1994). 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 (EMCON 1994). Grab soil samples collected from beneath the fuel dispensers (TD-1, TD-2, TD-3 and TD-4) also contained detectable concentrations of TPHg and TPHd (SECOR 2007).

In 1999, 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 (SECOR 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 one excavation. One soil sample collected from the waste oil UST excavation contained detectable concentrations of TPHd, TPHg, benzene, and total petroleum hydrocarbons as motor oil (TPHo). A grab groundwater sample collected from 7.5 ft bgs from the waste oil UST excavation contained detectable concentrations of TPHd, TPHo, benzene, and methyl tertiary butyl ether (MTBE). Soil samples collected from beneath the former clarifier (4 ft bgs), former Hoist No. 1 (8 ft bgs), and the former Hoist No. 2 (8 ft bgs) also contained detectable concentrations of TPHg, TPHd, TPHo, benzene, and lead.

Former BP Station No. 11126

MTBE was not detected in soil samples collected from the excavations (SECOR 2007).

Based on the previous detections of petroleum hydrocarbons in soil in the clarifier and hoist areas, over-excavation was conducted on May 7, 1999 (SECOR 1999). Soil samples collected from the clarifier excavation at 5 ft bgs, and the hoist excavations at 5 ft bgs contained detectable concentrations of TPHg, TPHd, TPHo, and lead. 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 TPHo and 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 2007).

On March 28 and 30, 2001, Gettler-Ryan Incorporated (GRI) oversaw the removal and replacement of product lines, dispensers, and the station canopy (SECOR, 2001). 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 ft to 3.5 ft bgs prior to sampling, resulting in the removal of approximately 150 cubic yards (yd^3) 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 yd^3 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 milligrams per kilogram (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 yd^3 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 excavation (SECOR 2007).

In June 2005, URS supervised the installation of two off-site, down-gradient groundwater monitoring wells (MW-10 and MW-11) at the Powell Street Plaza property, located south of the site (URS 2005). Soil samples from both of the borings

Former BP Station No. 11126

at depths of 7 ft bgs (MW-10), and 18 and 23.5 ft bgs (MW-11) did not contain petroleum hydrocarbons or fuel oxygenates at or above laboratory method reporting limits (MRLs). With the exception of a concentration of MTBE collected at 7 ft bgs 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 foot per foot (ft/ft). URS concluded that the off-site, lateral extent of dissolved impacts had been delineated during this investigation.

References

Alisto Engineering Group, 1994, Supplemental Site Investigation Report, dated April 8, 1994.

EMCON Environmental, Inc. (EMCON), 1994, Baseline Assessment Report, dated December 27, 1994.

SECOR International, Inc. (SECOR), 1999, Removal of Waste Oil UST, Hoists No. 1 & No. 2 and Clarifier, dated June 29, 1999.

SECOR International, Inc., 2001, Removal and Replacement of Product Lines, Dispensers and Canopy, dated May 4, 2001.

SECOR International Inc., 2007, Remedial Action Plan; 76 (Former BP) Service Station No. 11126, 1700 Powell Street, Emeryville, California, dated March 30, 2007.

Target Environmental Services, Inc. (TES), 1989, Soil Gas Survey, dated April, 1989.



Appendix B

Groundwater Sampling Data
Package



DAILY REPORT

Page 1 of 1

Project: Arcadis 11126 Project No.: 09-88-662

Field Representative(s): Alex Martinez Day: Friday Date: 12/7/12

Time Onsite: From: 0630 To: 1300; From: _____ To: _____; From: _____ To: _____

Signed HASP Safety Glasses Hard Hat Steel Toe Boots Safety Vest

UST Emergency System Shut-off Switches Located Proper Gloves

Proper Level of Barricading Other PPE (describe) _____

Weather: Partly Cloudy

Equipment In Use: Peristaltic pump, Horiba water quality meter, water level meter.

Visitors: None

TIME:	WORK DESCRIPTION:
0630	Arrived onsite
0640	Set up @ Mw-1
0730	Set up @ Mw-8
0815	Set up @ Mw-4 / Statewide arrived onsite.
0855	Set up @ Mw-5
0925	Set up @ Mw-7 / Statewide signed out @ offsite
1005	Set up @ Mw-6
1045	Set up @ Mw-3
1125	Set up @ Mw-9
1155	Set up @ Mw-2
1235	Set up to gauge Mw-11 & Mw-10
1300	Completed fieldwork @ offsite.

Signature: Alex Martinez



GROUNDWATER MONITORING SITE SHEET

Page 1 of 10Project: Arcadis 11126 Project No.: 09-88-662 Date: 12/7/12Field Representative: AM Elevation: -Formation recharge rate is historically: High Low (*circle one*)W. L. Indicator ID #: - Oil/Water Interface ID #: - (*List #s of all equip used.*)

WELL ID RECORD					WELL GAUGING RECORD				LAB ANALYSES			
Well ID	Well Sampling Order	As-Built Well Diameter (inches)	As-Built Well Screen Interval (ft)	Previous Depth to Water (ft)	Time (24:00)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)*	Depth to Water (ft)	Well Total Depth (ft)			
MW-1					0703	-	-	3.30	11.52			
MW-2					1200	-	-	4.11	12.00			
MW-3					1056	-	-	4.65	11.60			
MW-4					0820	-	-	7.05	11.00			
MW-5					0903	-	-	5.11	12.45			
MW-6					1017	-	-	5.35	12.10			
MW-7					0935	-	-	4.78	13.44			
MW-8					0736	-	-	3.99	13.85			
MW-9					1130	-	-	3.38	14.02			
MW-10					1237	-	-	6.29	17.18			
MW-11					1242	-	-	8.85	16.93			
* Device used to measure LNAPL thickness:					Bailer	Oil/Water Interface Meter (<i>circle one</i>)						
If bailer used, note bailer dimensions (inches):					Entry Diameter _____	Chamber Diameter _____						

* Device used to measure LNAPL thickness: Bailer Oil/Water Interface Meter (*circle one*)If bailer used, note bailer dimensions (inches): Entry Diameter _____ Chamber Diameter _____Signature: Alex Morris

Revision: 1/24/2012



GROUNDWATER SAMPLING DATA SHEET

Page 2 of 10

Project: Arcadis 11126 Project No.: 09-88-662 Date: 12/7/12
 Field Representative: AM
 Well ID: MW-1 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT		<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell				
<input checked="" type="checkbox"/> Disp. Tubing		<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:				
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments:						
<input checked="" type="checkbox"/> Good	Improvement Needed	(circle one)						
PURGING/SAMPLING METHOD		Predetermined Well Volume	<input checked="" type="checkbox"/> Low-Flow	Other: (circle one)				
PREDETERMINED WELL VOLUME								
Casing Diameter Unit Volume (gal/ft) (circle one)								
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____				
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	" ()				
Total Well Depth (a): _____ (ft)								
Initial Depth to Water (b): _____ (ft)								
Water Column Height (WCH) = (a - b): _____ (ft)								
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)								
Three Casing Volumes = WCV x 3: _____ (gal)								
Five Casing Volumes = WCV x 5: _____ (gal)								
Pump Depth (if pump used): _____ (ft)								
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity μS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0711	0.0	15.35	7.52	1.70	2.83	-99	142	
0713	0.5	16.85	7.93	1.66	2.45	-128	133	
0715	1.0	17.52	7.42	1.70	2.06	-142	136	
0717	1.5	18.09	7.42	1.74	1.86	-150	132	
0719	2.0	18.38	7.43	1.77	1.73	-157	126	
0721	2.5	18.64	7.43	1.78	1.64	-161	119	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD		<input checked="" type="checkbox"/> Low Flow & Parameters Stable			<input type="checkbox"/> 3 Casing Volumes & Parameters Stable		<input type="checkbox"/> 5 Casing Volumes	
		<input type="checkbox"/> Other:						

SAMPLE COLLECTION RECORD				GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>3.91</u> (ft)				Parameter	Time	Measurement
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing				DO (mg/L)		
<input checked="" type="checkbox"/> Disp. Pump Tubing Other: _____				Ferrous Iron (mg/L)		
Sample ID: <u>MW-1</u> Sample Collection Time: <u>0725</u> (24:00)				Redox Potential (mV)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber				Alkalinity (mg/L)		
<input type="checkbox"/> Other: _____		<input type="checkbox"/> Other: _____		Other:		
<input type="checkbox"/> Other: _____		<input type="checkbox"/> Other: _____		Other:		

Signature: Alay M.

Revision: 7/3/12



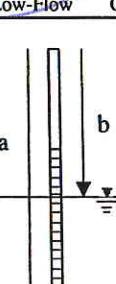
GROUNDWATER SAMPLING DATA SHEET

Page 4 of 10

Project: Arcadis 11126 Project No.: 99-88-662 Date: 12/7/12

Field Representative: AM

Well ID: MW-3 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell												
<input checked="" type="checkbox"/> Disp. Tubing	<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:												
WELL HEAD INTEGRITY (cap, lock, vault, etc.)															
Good	Improvement Needed	Comments: _____													
PURGING/SAMPLING METHOD		Predetermined Well Volume	<input checked="" type="checkbox"/> Low-Flow Other: _____ (circle one)												
PREDETERMINED WELL VOLUME		<table border="1"> <tr> <td>Casing Diameter Unit Volume (gal/ft) (circle one)</td> <td></td> </tr> <tr> <td>1" (0.04)</td> <td>1.25" (0.08)</td> <td>2" (0.17)</td> <td>3" (0.38)</td> <td>Other: _____ (_____)</td> </tr> <tr> <td>4" (0.66)</td> <td>6" (1.50)</td> <td>8" (2.60)</td> <td>12" (5.81)</td> <td>_____ (_____)</td> </tr> </table>		Casing Diameter Unit Volume (gal/ft) (circle one)		1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____ (_____)	4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	_____ (_____)
Casing Diameter Unit Volume (gal/ft) (circle one)															
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____ (_____)											
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	_____ (_____)											
Total Well Depth (a):	(ft)														
Initial Depth to Water (b):	(ft)														
Water Column Height (WCH) = (a - b):	(ft)														
Water Column Volume (WCV) = WCH x Unit Volume:	(gal)														
Three Casing Volumes = WCV x 3:	(gal)														
Five Casing Volumes = WCV x 5:	(gal)														
Pump Depth (if pump used):	(ft)														
LOW-FLOW															
Previous Low-Flow Purge Rate:	(lpm)														
Total Well Depth (a):	11.60 (ft)														
Initial Depth to Water (b):	4.65 (ft)														
Pump In-take Depth = b + (a-b)/2:	8.17 (ft)														
Maximum Allowable Drawdown = (a-b)/8:	0.86 (ft)														
Low-Flow Purge Rate:	0.25 (Lpm)*														
Comments:															
<i>*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.</i>															

GROUNDWATER STABILIZATION PARAMETER RECORD

Previous Stabilized Parameters

PURGE COMPLETION RECORD

X Low Flow & Parameters Stable

3 Casing Volumes & Parameters St

5 Casing Volumes

Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 4.59 (ft)

Sample Collected Via: Disp. Bailer Dedicated Pump Tubing

Disp. Pump Tubing Other:

Sample ID: Mw-3 Sample Collection Time: 1112 (24:00)

Containers (#): 3 VOA (X preserved or unpreserved) Liter Amber

2 Other: IL Amber (NP) Other: _____

Other: _____ Other: _____

22 21

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)		
Ferrous Iron (mg/L)		
Redox Potential (mV)		
Alkalinity (mg/L)		
Other:		
Other:		

Signature: Alex Meeker

Revision: 7/3/12



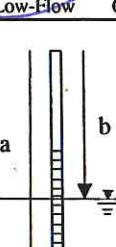
GROUNDWATER SAMPLING DATA SHEET

Page 6 of 16

Project: Arecaid 5 11126 Project No.: 09-88-662 Date: 12/1/20

Field Representative: AM

Well ID: MW-5 Start Time: 1 End Time: 1 Total Time (minutes): 1

PURGE EQUIPMENT	Disp. Bailer	120V Pump	Flow Cell			
<input checked="" type="checkbox"/> Disp. Tubing	<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:			
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____				
<input checked="" type="checkbox"/> Good	Improvement Needed	(circle one)				
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow Other: (circle one)			
PREDETERMINED WELL VOLUME <table border="1"> <tr> <th>Casing Diameter Unit Volume (gal/ft) (circle one)</th> </tr> <tr> <td>1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____</td> </tr> <tr> <td>4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()</td> </tr> </table>				Casing Diameter Unit Volume (gal/ft) (circle one)	1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____	4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()
Casing Diameter Unit Volume (gal/ft) (circle one)						
1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____						
4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()						
Total Well Depth (a):	(ft)					
Initial Depth to Water (b):	(ft)					
Water Column Height (WCH) = (a - b):	(ft)					
Water Column Volume (WCV) = WCH x Unit Volume:	(gal)					
Three Casing Volumes = WCV x 3:	(gal)					
Five Casing Volumes = WCV x 5:	(gal)					
Pump Depth (if pump used):	(ft)					
						
LOW-FLOW						
Previous Low-Flow Purge Rate:	(lpm)					
Total Well Depth (a):	12.45 (ft)					
Initial Depth to Water (b):	5.11 (ft)					
Pump In-take Depth = b + (a-b)/2:	8.78 (ft)					
Maximum Allowable Drawdown = (a-b)/8:	0.91 (ft)					
Low-Flow Purge Rate:	0.25 (lpm)*					
Comments:						
<i>*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.</i>						

GROUNDWATER STABILIZATION PARAMETER RECORD

One VOA broke.

Previous Stabilized Parameters

Low Flow & Parameters Stable 3 Casing Volumes & Parameters Stable 5 Casing Volumes

Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 5.32 (ft) Parameter: Time: Measurement:

Sample Collected Via: Disp. Bailer Dedicated Pump Tubing DO (mg/L)

Disp. Pump Tubing Other: _____ Ferrous Iron (mg/L) _____

Sample ID: MW-5 Sample Collection Time: 09:20 (24:00) Redox Potential (mV)

Containers (#): 3 VOA (preserved or unpreserved) Liter Amber Alkalinity (mg/L)

Other: _____ Other: _____ Other: _____

Other: _____ Other: _____ Other: _____

Digitized by srujanika@gmail.com

Signature: Alex Grachev Revision: 7/3/12



GROUNDWATER SAMPLING DATA SHEET

Page 7 of 10Project: Arcadis 11126 Project No.: 09-88-662 Date: 12/7/12Field Representative: AMWell ID: Mw-6 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	Disp. Bailer	120V Pump	<input checked="" type="checkbox"/> Flow Cell
* Disp. Tubing	12V Pump	* Peristaltic Pump	Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.)	Comments:
Good	Improvement Needed (circle one)

PURGING/SAMPLING METHOD	Predetermined Well Volume	Low-Flow	Other:	(circle one)
-------------------------	---------------------------	----------	--------	--------------

PREDETERMINED WELL VOLUME				Low-Flow	LOW-FLOW
Casing Diameter Unit Volume (gal/ft) (circle one)	a	b	Previous Low-Flow Purge Rate: _____ (lpm)		
1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____			Total Well Depth (a): <u>12.10</u> (ft)		
4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " _____			Initial Depth to Water (b): <u>5.35</u> (ft)		
Total Well Depth (a): _____ (ft)			Pump In-take Depth = b + (a-b)/2: <u>8.72</u> (ft)		
Initial Depth to Water (b): _____ (ft)			Maximum Allowable Drawdown = (a-b)/8: <u>0.84</u> (ft)		
Water Column Height (WCH) = (a - b): _____ (ft)			Low-Flow Purge Rate: <u>0.25</u> (Lpm)*		
Water Column Volume (WCV) = WCV x Unit Volume: _____ (gal)			Comments: _____		
Three Casing Volumes = WCV x 3: _____ (gal)					
Five Casing Volumes = WCV x 5: _____ (gal)					
Pump Depth (if pump used): _____ (ft)					
*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.					

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1022	0.0	21.62	8.10	1.93	1.72	-98	357	
1024	0.5	21.83	7.84	1.92	1.27	-144	334	
1026	1.0	22.01	7.79	1.91	1.11	-164	329	
1028	1.5	22.08	7.78	1.90	1.20	-164	283	

Previous Stabilized Parameters

PURGE COMPLETION RECORD Low Flow & Parameters Stable 3 Casing Volumes & Parameters Stable 5 Casing Volumes

Other:

SAMPLE COLLECTION RECORD				GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>5.42</u> (ft)				Parameter	Time	Measurement
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing				DO (mg/L)		
<input checked="" type="checkbox"/> Disp. Pump Tubing Other:				Ferrous Iron (mg/L)		
Sample ID: <u>Mw-6</u> Sample Collection Time: <u>1033</u> (24:00)				Redox Potential (mV)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber				Alkalinity (mg/L)		
<u>2</u> Other: <u>1 L Number(NP)</u> Other:				Other:		
Other:				Other:		

Signature: Alex Meade

Revision: 7/3/12



GROUNDWATER SAMPLING DATA SHEET

Page 8 of 18

Project: Arcadis 11126 Project No.: 09-88-662 Date: 12/7/12

Field Representative: AM

Well ID: MN-7 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell
<input checked="" type="checkbox"/> Disp. Tubing	<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.)	Comments:
--	-----------

<input checked="" type="radio"/> Good	<input type="radio"/> Improvement Needed	(circle one)
---------------------------------------	--	--------------

PURGING/SAMPLING METHOD	Predetermined Well Volume	<input checked="" type="checkbox"/> Low-Flow	Other:	(circle one)
-------------------------	---------------------------	--	--------	--------------

PREDETERMINED WELL VOLUME					LOW-FLOW		
Casing Diameter Unit Volume (gal/ft)	(circle one)				Previous Low-Flow Purge Rate:	(lpm)	
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)		Other:	<u>13.44</u>	
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)		" ()	(ft)	
Total Well Depth (a):					Initial Depth to Water (b):	<u>4.78</u>	
Initial Depth to Water (b):					Pump In-take Depth = b + (a-b)/2:	<u>9.11</u>	
Water Column Height (WCH) = (a - b):				Maximum Allowable Drawdown = (a-b)/8:	<u>1.03</u>		
Water Column Volume (WCV) = WCH x Unit Volume:				Low-Flow Purge Rate:	<u>0.25</u> (Lpm)*		
Three Casing Volumes = WCV x 3:				Comments:			
Five Casing Volumes = WCV x 5:				<small>*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.</small>			
Pump Depth (if pump used):							

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0943	0.0	20.36	7.63	3.63	2.38	-99	12.5	
0945	0.5	21.42	7.80	3.17	1.65	-148	3.2	
0947	1.0	21.76	7.81	2.83	1.47	-160	4.3	
0949	1.5	22.03	7.81	2.55	1.29	-170	3.9	
0951	2.0	22.19	7.81	2.44	1.21	-175	3.4	

Previous Stabilized Parameters

PURGE COMPLETION RECORD Low Flow & Parameters Stable 3 Casing Volumes & Parameters Stable 5 Casing Volumes

Other:

SAMPLE COLLECTION RECORD				GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>4.80</u> (ft)				Parameter	Time	Measurement
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing				DO (mg/L)		
<input checked="" type="checkbox"/> Disp. Pump Tubing Other:				Ferrous Iron (mg/L)		
Sample ID: <u>MN-7</u> Sample Collection Time: <u>0955</u> (24:00)				Redox Potential (mV)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber				Alkalinity (mg/L)		
<input type="checkbox"/> Other: _____				Other:		
<input type="checkbox"/> Other: _____				Other:		

Signature: Alex Marks

Revision: 7/3/12



GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 12/7/12

Field Representative: AM

Well ID: Mw-8 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	<input checked="" type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell
<input checked="" type="checkbox"/> Disp. Tubing	<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.)

Comments:

Good Improvement Needed (circle one)

PURGING/SAMPLING METHOD

Predetermined Well Volume Low-Flow Other: (circle one)

PREDETERMINED WELL VOLUME

Casing Diameter | Unit Volume (gal/ft) (circle one)

1" | (0.04) 1.25" | (0.08) 2" | (0.17) 3" | (0.38) Other:

4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81) " | ()

Total Well Depth (a): _____ (ft)

Initial Depth to Water (b): _____ (ft)

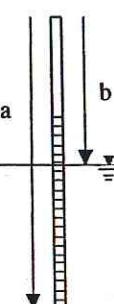
Water Column Height (WCH) = (a - b): _____ (ft)

Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)

Three Casing Volumes = WCV x 3: _____ (gal)

Five Casing Volumes = WCV x 5: _____ (gal)

Pump Depth (if pump used): _____ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: _____ (lpm)

Total Well Depth (a): 13.85 (ft)

Initial Depth to Water (b): 3.99 (ft)

Pump In-take Depth = b + (a-b)/2: 8.92 (ft)

Maximum Allowable Drawdown = (a-b)/8: 1.23 (ft)

Low-Flow Purge Rate: 0.25 (Lpm)*

Comments: _____

*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES
0743	0.0	21.12	7.73	0.902	1.75	+151	127	Light HC odor
0745	0.5	21.62	7.68	0.896	1.54	+168	165	
0747	1.0	21.86	7.66	0.893	1.41	+178	186	
0749	1.5	21.93	7.66	0.892	1.37	+182	193	

Previous Stabilized Parameters

PURGE COMPLETION RECORD Low Flow & Parameters Stable 3 Casing Volumes & Parameters Stable 5 Casing Volumes

Other: _____

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 4.77 (ft)

Sample Collected Via: Disp. Bailer Dedicated Pump Tubing

Disp. Pump Tubing Other: _____

Sample ID: Mw-8 Sample Collection Time: 0756 (24:00)

Containers (#): 3 VOA (preserved or unpreserved) Liter Amber

2 Other: 1 L Amber (NP) Other: _____

Other: Other: _____

GEOCHEMICAL PARAMETERS

Parameter Time Measurement

DO (mg/L) _____

Ferrous Iron (mg/L) _____

Redox Potential (mV) _____

Alkalinity (mg/L) _____

Other: _____

Other: _____

Signature: Alex Mack

Revision: 7/3/12



GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 12/7/12

Field Representative: AM

Well ID: Mw-9 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell
<input checked="" type="checkbox"/> Disp. Tubing	<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments: _____

Good Improvement Needed (circle one)

PURGING/SAMPLING METHOD	Predetermined Well Volume	Low-Flow	Other:	(circle one)				
PREDETERMINED WELL VOLUME				LOW-FLOW				
Casing Diameter Unit Volume (gal/ft) (circle one)				Previous Low-Flow Purge Rate: _____ (lpm)				
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Total Well Depth (a): _____ (ft)				
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	Initial Depth to Water (b): _____ (ft)				
				Pump In-take Depth = b + (a-b)/2: _____ (ft)				
				Maximum Allowable Drawdown = (a-b)/8: _____ (ft)				
				Low-Flow Purge Rate: _____ (Lpm)*				
				Comments: _____				
				*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.				
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1137	0.0	19.87	7.68	0.397	1.67	-7	77.8	Moderate HC odor
1139	0.5	20.35	7.44	0.392	1.25	-30	91.8	
1141	1.0	20.42	7.43	0.391	1.14	-45	77.2	
1143	1.5	20.69	7.42	0.389	1.04	-54	60.4	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD		<input checked="" type="checkbox"/> Low Flow & Parameters Stable			<input type="checkbox"/> 3 Casing Volumes & Parameters Stable		<input type="checkbox"/> 5 Casing Volumes	
		<input type="checkbox"/> Other:						

SAMPLE COLLECTION RECORD		GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>3.82</u> (ft)		Parameter	Time	Measurement
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing		DO (mg/L)		
<input checked="" type="checkbox"/> Disp. Pump Tubing Other:		Ferrous Iron (mg/L)		
Sample ID: <u>Mw-9</u>	Sample Collection Time: <u>1145</u> (24:00)	Redox Potential (mV)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved)	<input type="checkbox"/> Liter Amber	Alkalinity (mg/L)		
<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____	Other:		
<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____	Other:		

Signature: Alex Madsen

Revision: 7/3/12



Appendix C

Certified Laboratory Analytical
Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-46514-1

Client Project/Site: BP #11126, Emeryville

For:

ARCADIS U.S., Inc.

100 Montgomery Street

Suite 300

San Francisco, California 94104

Attn: Hollis Phillips

Authorized for release by:

12/17/2012 3:15:20 PM

Dimple Sharma

Project Manager I

dimple.sharma@testamericainc.com

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Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.	1
⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis	2
%R	Percent Recovery	3
CNF	Contains no Free Liquid	4
DER	Duplicate error ratio (normalized absolute difference)	5
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample	6
DLC	Decision level concentration	7
EDL	Estimated Detection Limit	8
EPA	United States Environmental Protection Agency	9
MDA	Minimum detectable activity	10
MDC	Minimum detectable concentration	11
MDL	Method Detection Limit	12
ML	Minimum Level (Dioxin)	13
ND	Not detected at the reporting limit (or MDL or EDL if shown)	14
PQL	Practical Quantitation Limit	
QC	Quality Control	
RER	Relative error ratio	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Job ID: 720-46514-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-46514-1

Comments

No additional comments.

Receipt

The samples were received on 12/7/2012 1:58 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

No analytical or quality issues were noted.

GC Semi VOA

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-1

Lab Sample ID: 720-46514-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	32		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
Benzene	6.3		0.50		ug/L	1		MS	
Toluene	2.3		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
Xylenes, Total	4.8		1.0		ug/L	1		MS	
Gasoline Range Organics (GRO) -C6-C12	700		50		ug/L	1		8260B/CA_LUFT	Total/NA
TBA	1400		4.0		ug/L	1		MS	
TAME	0.81		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
								MS	

Client Sample ID: MW-2

Lab Sample ID: 720-46514-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	1300		10		ug/L	20		8260B/CA_LUFT	Total/NA
Benzene	2600		10		ug/L	20		MS	
Ethylbenzene	350		10		ug/L	20		8260B/CA_LUFT	Total/NA
Toluene	31		10		ug/L	20		MS	
Xylenes, Total	72		20		ug/L	20		8260B/CA_LUFT	Total/NA
Gasoline Range Organics (GRO) -C6-C12	10000		1000		ug/L	20		MS	
TBA	3400		80		ug/L	20		8260B/CA_LUFT	Total/NA
TAME	51		10		ug/L	20		MS	
								8260B/CA_LUFT	Total/NA
								MS	

Client Sample ID: MW-3

Lab Sample ID: 720-46514-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TBA	20		4.0		ug/L	1		8260B/CA_LUFT	Total/NA
Diesel Range Organics [C10-C28]	110		53		ug/L	1		MS	
								8015B	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 720-46514-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	8.7		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
TBA	18000		40		ug/L	10		MS	
Diesel Range Organics [C10-C28]	330		51		ug/L	1		8260B/CA_LUFT	Total/NA
								MS	
								8015B	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 720-46514-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	6.2		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
								MS	

TestAmerica Pleasanton

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-5 (Continued)

Lab Sample ID: 720-46514-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.9		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	0.89		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	0.79		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	2.9		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	3200		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	89		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 720-46514-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	2.4		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	300		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	610		50		ug/L	1		8015B	Total/NA

Client Sample ID: MW-7

Lab Sample ID: 720-46514-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	3.0		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	2600		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-8

Lab Sample ID: 720-46514-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	1.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	210		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	31		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	800		49		ug/L	1		8015B	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 720-46514-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	250		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Benzene	130		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	6.1		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Toluene	5.1		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	11		5.0		ug/L	5		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	2000		250		ug/L	5		8260B/CA_LUFT MS	Total/NA

TestAmerica Pleasanton

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-9 (Continued)

Lab Sample ID: 720-46514-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TBA	340		20		ug/L	5		8260B/CA_LUFT MS	Total/NA
TAME	9.6		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-1

Lab Sample ID: 720-46514-1

Date Collected: 12/07/12 07:25

Matrix: Water

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	32		0.50		ug/L			12/11/12 16:48	1
Benzene	6.3		0.50		ug/L			12/11/12 16:48	1
Ethylbenzene	ND		0.50		ug/L			12/11/12 16:48	1
Toluene	2.3		0.50		ug/L			12/11/12 16:48	1
Xylenes, Total	4.8		1.0		ug/L			12/11/12 16:48	1
Gasoline Range Organics (GRO) -C6-C12	700		50		ug/L			12/11/12 16:48	1
TBA	1400		4.0		ug/L			12/11/12 16:48	1
TAME	0.81		0.50		ug/L			12/11/12 16:48	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102			67 - 130				12/11/12 16:48	1
1,2-Dichloroethane-d4 (Surr)	103			75 - 138				12/11/12 16:48	1
Toluene-d8 (Surr)	103			70 - 130				12/11/12 16:48	1

TestAmerica Pleasanton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-2

Lab Sample ID: 720-46514-2

Date Collected: 12/07/12 12:18

Matrix: Water

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	1300		10		ug/L			12/08/12 01:18	20
Benzene	2600		10		ug/L			12/08/12 01:18	20
EDB	ND		10		ug/L			12/08/12 01:18	20
1,2-DCA	ND		10		ug/L			12/08/12 01:18	20
Ethylbenzene	350		10		ug/L			12/08/12 01:18	20
Toluene	31		10		ug/L			12/08/12 01:18	20
Xylenes, Total	72		20		ug/L			12/08/12 01:18	20
Gasoline Range Organics (GRO)	10000		1000		ug/L			12/08/12 01:18	20
-C6-C12									
TBA	3400		80		ug/L			12/08/12 01:18	20
DIPE	ND		10		ug/L			12/08/12 01:18	20
TAME	51		10		ug/L			12/08/12 01:18	20
Ethyl t-butyl ether	ND		10		ug/L			12/08/12 01:18	20
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101			67 - 130				12/08/12 01:18	20
1,2-Dichloroethane-d4 (Surr)	94			75 - 138				12/08/12 01:18	20
Toluene-d8 (Surr)	99			70 - 130				12/08/12 01:18	20

TestAmerica Pleasanton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-3

Lab Sample ID: 720-46514-3

Matrix: Water

Date Collected: 12/07/12 11:12

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		0.50		ug/L			12/11/12 17:18	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			12/11/12 17:18	1
TBA	20		4.0		ug/L			12/11/12 17:18	1
TAME	ND		0.50		ug/L			12/11/12 17:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130					12/11/12 17:18	1
1,2-Dichloroethane-d4 (Surr)	101		75 - 138					12/11/12 17:18	1
Toluene-d8 (Surr)	97		70 - 130					12/11/12 17:18	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	110		53		ug/L		12/10/12 14:22	12/10/12 21:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	102		23 - 156				12/10/12 14:22	12/10/12 21:32	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-4

Lab Sample ID: 720-46514-4

Matrix: Water

Date Collected: 12/07/12 08:40

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	8.7		0.50		ug/L			12/08/12 02:20	1
Gasoline Range Organics (GRO) -C6-C12	ND		500		ug/L			12/11/12 17:49	10
TBA	18000		40		ug/L			12/11/12 17:49	10
TAME	ND		0.50		ug/L			12/08/12 02:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130					12/08/12 02:20	1
4-Bromofluorobenzene	98		67 - 130					12/11/12 17:49	10
1,2-Dichloroethane-d4 (Surr)	98		75 - 138					12/08/12 02:20	1
1,2-Dichloroethane-d4 (Surr)	100		75 - 138					12/11/12 17:49	10
Toluene-d8 (Surr)	99		70 - 130					12/08/12 02:20	1
Toluene-d8 (Surr)	98		70 - 130					12/11/12 17:49	10

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	330		51		ug/L		12/10/12 14:22	12/10/12 22:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	72		23 - 156				12/10/12 14:22	12/10/12 22:01	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-5

Lab Sample ID: 720-46514-5

Date Collected: 12/07/12 09:20

Matrix: Water

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	6.2		0.50		ug/L			12/08/12 02:50	1
Benzene	2.9		0.50		ug/L			12/08/12 02:50	1
Ethylbenzene	0.89		0.50		ug/L			12/08/12 02:50	1
Toluene	0.79		0.50		ug/L			12/08/12 02:50	1
Xylenes, Total	2.9		1.0		ug/L			12/08/12 02:50	1
Gasoline Range Organics (GRO) -C6-C12	3200		50		ug/L			12/08/12 02:50	1
TBA	89		4.0		ug/L			12/11/12 18:20	1
TAME	ND		0.50		ug/L			12/08/12 02:50	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106			67 - 130				12/08/12 02:50	1
4-Bromofluorobenzene	109			67 - 130				12/11/12 18:20	1
1,2-Dichloroethane-d4 (Surr)	97			75 - 138				12/08/12 02:50	1
1,2-Dichloroethane-d4 (Surr)	100			75 - 138				12/11/12 18:20	1
Toluene-d8 (Surr)	103			70 - 130				12/08/12 02:50	1
Toluene-d8 (Surr)	103			70 - 130				12/11/12 18:20	1

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Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-6

Lab Sample ID: 720-46514-6

Date Collected: 12/07/12 10:33

Matrix: Water

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	2.4		0.50		ug/L			12/08/12 03:21	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			12/08/12 03:21	1
TBA	300		4.0		ug/L			12/08/12 03:21	1
TAME	ND		0.50		ug/L			12/08/12 03:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130					12/08/12 03:21	1
1,2-Dichloroethane-d4 (Surr)	96		75 - 138					12/08/12 03:21	1
Toluene-d8 (Surr)	99		70 - 130					12/08/12 03:21	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	610		50		ug/L		12/10/12 14:22	12/10/12 22:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	64		23 - 156				12/10/12 14:22	12/10/12 22:30	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-7

Lab Sample ID: 720-46514-7

Date Collected: 12/07/12 09:55

Matrix: Water

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	3.0		0.50		ug/L			12/08/12 03:51	1
Benzene	ND		0.50		ug/L			12/08/12 03:51	1
Ethylbenzene	ND		0.50		ug/L			12/08/12 03:51	1
Toluene	ND		0.50		ug/L			12/08/12 03:51	1
Xylenes, Total	ND		1.0		ug/L			12/08/12 03:51	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			12/08/12 03:51	1
TBA	2600		4.0		ug/L			12/08/12 03:51	1
TAME	ND		0.50		ug/L			12/08/12 03:51	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100			67 - 130				12/08/12 03:51	1
1,2-Dichloroethane-d4 (Surr)	93			75 - 138				12/08/12 03:51	1
Toluene-d8 (Surr)	101			70 - 130				12/08/12 03:51	1

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Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-8

Lab Sample ID: 720-46514-8

Matrix: Water

Date Collected: 12/07/12 07:56

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	1.2		0.50		ug/L			12/08/12 04:22	1
Gasoline Range Organics (GRO) -C6-C12	210		50		ug/L			12/08/12 04:22	1
TBA	31		4.0		ug/L			12/08/12 04:22	1
TAME	ND		0.50		ug/L			12/08/12 04:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					12/08/12 04:22	1
1,2-Dichloroethane-d4 (Surr)	92		75 - 138					12/08/12 04:22	1
Toluene-d8 (Surr)	100		70 - 130					12/08/12 04:22	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	800		49		ug/L		12/10/12 14:22	12/10/12 23:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	59		23 - 156				12/10/12 14:22	12/10/12 23:28	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-9

Lab Sample ID: 720-46514-9

Date Collected: 12/07/12 11:48

Matrix: Water

Date Received: 12/07/12 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	250		2.5		ug/L			12/08/12 04:53	5
Benzene	130		2.5		ug/L			12/08/12 04:53	5
Ethylbenzene	6.1		2.5		ug/L			12/08/12 04:53	5
Toluene	5.1		2.5		ug/L			12/08/12 04:53	5
Xylenes, Total	11		5.0		ug/L			12/08/12 04:53	5
Gasoline Range Organics (GRO) -C6-C12	2000		250		ug/L			12/08/12 04:53	5
TBA	340		20		ug/L			12/08/12 04:53	5
TAME	9.6		2.5		ug/L			12/08/12 04:53	5
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99			67 - 130				12/08/12 04:53	5
1,2-Dichloroethane-d4 (Surr)	93			75 - 138				12/08/12 04:53	5
Toluene-d8 (Surr)	102			70 - 130				12/08/12 04:53	5

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-126619/4

Matrix: Water

Analysis Batch: 126619

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
MTBE	ND		0.50		ug/L			12/07/12 19:40	1
Benzene	ND		0.50		ug/L			12/07/12 19:40	1
EDB	ND		0.50		ug/L			12/07/12 19:40	1
1,2-DCA	ND		0.50		ug/L			12/07/12 19:40	1
Ethylbenzene	ND		0.50		ug/L			12/07/12 19:40	1
Toluene	ND		0.50		ug/L			12/07/12 19:40	1
Xylenes, Total	ND		1.0		ug/L			12/07/12 19:40	1
Gasoline Range Organics (GRO)	ND		50		ug/L			12/07/12 19:40	1
-C6-C12									
TBA	ND		4.0		ug/L			12/07/12 19:40	1
DIPE	ND		0.50		ug/L			12/07/12 19:40	1
TAME	ND		0.50		ug/L			12/07/12 19:40	1
Ethyl t-butyl ether	ND		0.50		ug/L			12/07/12 19:40	1
<hr/>									
Surrogate	MB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
4-Bromofluorobenzene	96		67 - 130					12/07/12 19:40	1
1,2-Dichloroethane-d4 (Surr)	92		75 - 138					12/07/12 19:40	1
Toluene-d8 (Surr)	98		70 - 130					12/07/12 19:40	1

Lab Sample ID: LCS 720-126619/5

Matrix: Water

Analysis Batch: 126619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
	Added							
MTBE	25.0		23.4		ug/L		94	62 - 130
Benzene	25.0		23.6		ug/L		94	79 - 130
Ethylbenzene	25.0		22.6		ug/L		90	80 - 120
Toluene	25.0		22.8		ug/L		91	78 - 120
m-Xylene & p-Xylene	50.0		45.3		ug/L		91	70 - 142
o-Xylene	25.0		23.2		ug/L		93	70 - 130
TBA	500		453		ug/L		91	70 - 130
TAME	25.0		24.0		ug/L		96	79 - 130
<hr/>								
Surrogate	LCS		Limits					
	%Recovery	Qualifier						
4-Bromofluorobenzene	100		67 - 130					
1,2-Dichloroethane-d4 (Surr)	89		75 - 138					
Toluene-d8 (Surr)	101		70 - 130					

Lab Sample ID: LCS 720-126619/7

Matrix: Water

Analysis Batch: 126619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
	Added							
Gasoline Range Organics (GRO)	500		456		ug/L		91	58 - 120
-C6-C12								

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-126619/7

Matrix: Water

Analysis Batch: 126619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	99				67 - 130
1,2-Dichloroethane-d4 (Surr)	92				75 - 138
Toluene-d8 (Surr)	100				70 - 130

Lab Sample ID: LCSD 720-126619/6

Matrix: Water

Analysis Batch: 126619

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike		LCSD	LCSD	Unit	D	%Rec	Limits	%Rec.	RPD	Limit
	Added	Result	Qualifier								
MTBE	25.0	23.6		ug/L		95		62 - 130		1	20
Benzene	25.0	23.8		ug/L		95		79 - 130		1	20
EDB	25.0	24.1		ug/L		96		70 - 130		1	20
1,2-DCA	25.0	21.0		ug/L		84		61 - 132		1	20
Ethylbenzene	25.0	22.9		ug/L		92		80 - 120		2	20
Toluene	25.0	23.3		ug/L		93		78 - 120		2	20
m-Xylene & p-Xylene	50.0	46.2		ug/L		92		70 - 142		2	20
o-Xylene	25.0	23.9		ug/L		96		70 - 130		3	20
TBA	500	457		ug/L		91		70 - 130		1	20
DIPÉ	25.0	25.7		ug/L		103		69 - 134		2	20
TAME	25.0	24.2		ug/L		97		79 - 130		1	20
Ethyl t-butyl ether	25.0	24.5		ug/L		98		70 - 130		1	20

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	99				67 - 130
1,2-Dichloroethane-d4 (Surr)	88				75 - 138
Toluene-d8 (Surr)	99				70 - 130

Lab Sample ID: LCSD 720-126619/8

Matrix: Water

Analysis Batch: 126619

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike		LCSD	LCSD	Unit	D	%Rec	Limits	%Rec.	RPD	Limit
	Added	Result	Qualifier								
Gasoline Range Organics (GRO) -C6-C12	500	451		ug/L		90		58 - 120		1	20

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	100				67 - 130
1,2-Dichloroethane-d4 (Surr)	88				75 - 138
Toluene-d8 (Surr)	100				70 - 130

Lab Sample ID: MB 720-126769/4

Matrix: Water

Analysis Batch: 126769

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
MTBE	ND		0.50		ug/L			12/11/12 09:38	1
Benzene	ND		0.50		ug/L			12/11/12 09:38	1
Ethylbenzene	ND		0.50		ug/L			12/11/12 09:38	1

TestAmerica Pleasanton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-126769/4

Matrix: Water

Analysis Batch: 126769

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND	0.50									
Toluene	ND	0.50	ug/L							12/11/12 09:38	1
Xylenes, Total	ND	1.0	ug/L							12/11/12 09:38	1
Gasoline Range Organics (GRO) -C6-C12	ND	50	ug/L							12/11/12 09:38	1
TBA	ND	4.0	ug/L							12/11/12 09:38	1
TAME	ND	0.50	ug/L							12/11/12 09:38	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	98	67 - 130						
4-Bromofluorobenzene	101	75 - 138					12/11/12 09:38	1
1,2-Dichloroethane-d4 (Surr)	99	70 - 130					12/11/12 09:38	1
Toluene-d8 (Surr)							12/11/12 09:38	1

Lab Sample ID: LCS 720-126769/5

Matrix: Water

Analysis Batch: 126769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier							
MTBE	25.0	25.5	ug/L					102	62 - 130	
Benzene	25.0	24.1	ug/L					96	79 - 130	
Ethylbenzene	25.0	23.5	ug/L					94	80 - 120	
Toluene	25.0	23.2	ug/L					93	78 - 120	
m-Xylene & p-Xylene	50.0	47.6	ug/L					95	70 - 142	
o-Xylene	25.0	24.7	ug/L					99	70 - 130	
TBA	500	457	ug/L					91	70 - 130	
TAME	25.0	25.7	ug/L					103	79 - 130	

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
	%Recovery	Qualifier			
4-Bromofluorobenzene	104	67 - 130			
1,2-Dichloroethane-d4 (Surr)	98	75 - 138			
Toluene-d8 (Surr)	101	70 - 130			

Lab Sample ID: LCS 720-126769/7

Matrix: Water

Analysis Batch: 126769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits
	Added	Result	Qualifier						
Gasoline Range Organics (GRO) -C6-C12	500	499	ug/L					100	58 - 120

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
	%Recovery	Qualifier			
4-Bromofluorobenzene	102	67 - 130			
1,2-Dichloroethane-d4 (Surr)	99	75 - 138			
Toluene-d8 (Surr)	102	70 - 130			

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-126769/6

Matrix: Water

Analysis Batch: 126769

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Added	Result	Qualifier						
MTBE	25.0	24.6		ug/L	98	62 - 130	4	20	
Benzene	25.0	23.7		ug/L	95	79 - 130	1	20	
Ethylbenzene	25.0	22.8		ug/L	91	80 - 120	3	20	
Toluene	25.0	22.9		ug/L	91	78 - 120	2	20	
m-Xylene & p-Xylene	50.0	46.8		ug/L	94	70 - 142	2	20	
o-Xylene	25.0	24.3		ug/L	97	70 - 130	2	20	
TBA	500	469		ug/L	94	70 - 130	3	20	
TAME	25.0	25.1		ug/L	100	79 - 130	2	20	

Surrogate *LCSD* *LCSD*

Surrogate	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		75 - 138
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: LCSD 720-126769/8

Matrix: Water

Analysis Batch: 126769

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Added	Result	Qualifier						
Gasoline Range Organics (GRO) -C6-C12	500	499		ug/L	100	58 - 120	0	20	

Surrogate *LCSD* *LCSD*

Surrogate	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		75 - 138
Toluene-d8 (Surr)	101		70 - 130

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-126720/1-A

Matrix: Water

Analysis Batch: 126690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126720

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		50		ug/L		12/10/12 14:22	12/10/12 21:32	1

Surrogate *MB* *MB*

Surrogate	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	94		23 - 156			
p-Terphenyl				12/10/12 14:22	12/10/12 21:32	1

Lab Sample ID: LCS 720-126720/2-A

Matrix: Water

Analysis Batch: 126690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126720

Analyte	Spike	LCs	LCs	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Diesel Range Organics [C10-C28]	2500	2340		ug/L	94	40 - 150	

TestAmerica Pleasanton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 720-126720/2-A

Matrix: Water

Analysis Batch: 126690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 126720

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
p-Terphenyl	127		23 - 156

Lab Sample ID: LCSD 720-126720/3-A

Matrix: Water

Analysis Batch: 126690

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 126720

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit
Diesel Range Organics [C10-C28]	2500	2160		ug/L		86	40 - 150	8
Surrogate								
p-Terphenyl	124							

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

GC/MS VOA

Analysis Batch: 126619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46514-2	MW-2	Total/NA	Water	8260B/CA_LUFT MS	5
720-46514-4	MW-4	Total/NA	Water	8260B/CA_LUFT MS	6
720-46514-5	MW-5	Total/NA	Water	8260B/CA_LUFT MS	7
720-46514-6	MW-6	Total/NA	Water	8260B/CA_LUFT MS	8
720-46514-7	MW-7	Total/NA	Water	8260B/CA_LUFT MS	9
720-46514-8	MW-8	Total/NA	Water	8260B/CA_LUFT MS	10
720-46514-9	MW-9	Total/NA	Water	8260B/CA_LUFT MS	11
LCS 720-126619/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	12
LCS 720-126619/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	13
LCSD 720-126619/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	14
LCSD 720-126619/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-126619/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 126769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46514-1	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
720-46514-3	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
720-46514-4	MW-4	Total/NA	Water	8260B/CA_LUFT MS	
720-46514-5	MW-5	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-126769/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-126769/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-126769/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-126769/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-126769/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

GC Semi VOA

Analysis Batch: 126690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-126720/2-A	Lab Control Sample	Total/NA	Water	8015B	126720
LCSD 720-126720/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	126720
MB 720-126720/1-A	Method Blank	Total/NA	Water	8015B	126720

TestAmerica Pleasanton

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

GC Semi VOA (Continued)

Analysis Batch: 126691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46514-3	MW-3	Total/NA	Water	8015B	126720
720-46514-4	MW-4	Total/NA	Water	8015B	126720
720-46514-6	MW-6	Total/NA	Water	8015B	126720
720-46514-8	MW-8	Total/NA	Water	8015B	126720

Prep Batch: 126720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46514-3	MW-3	Total/NA	Water	3510C	126720
720-46514-4	MW-4	Total/NA	Water	3510C	126720
720-46514-6	MW-6	Total/NA	Water	3510C	126720
720-46514-8	MW-8	Total/NA	Water	3510C	126720
LCS 720-126720/2-A	Lab Control Sample	Total/NA	Water	3510C	126720
LCSD 720-126720/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	126720
MB 720-126720/1-A	Method Blank	Total/NA	Water	3510C	126720

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Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-1

Date Collected: 12/07/12 07:25
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	126769	12/11/12 16:48	AC	TAL SF

Client Sample ID: MW-2

Date Collected: 12/07/12 12:18
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		20	126619	12/08/12 01:18	AC	TAL SF

Client Sample ID: MW-3

Date Collected: 12/07/12 11:12
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	126769	12/11/12 17:18	AC	TAL SF
Total/NA	Prep	3510C			126720	12/10/12 14:22	RU	TAL SF
Total/NA	Analysis	8015B		1	126691	12/10/12 21:32	DH	TAL SF

Client Sample ID: MW-4

Date Collected: 12/07/12 08:40
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	126619	12/08/12 02:20	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		10	126769	12/11/12 17:49	AC	TAL SF
Total/NA	Prep	3510C			126720	12/10/12 14:22	RU	TAL SF
Total/NA	Analysis	8015B		1	126691	12/10/12 22:01	DH	TAL SF

Client Sample ID: MW-5

Date Collected: 12/07/12 09:20
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	126619	12/08/12 02:50	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	126769	12/11/12 18:20	AC	TAL SF

Client Sample ID: MW-6

Date Collected: 12/07/12 10:33
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	126619	12/08/12 03:21	AC	TAL SF

TestAmerica Pleasanton

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Client Sample ID: MW-6

Date Collected: 12/07/12 10:33
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			126720	12/10/12 14:22	RU	TAL SF
Total/NA	Analysis	8015B		1	126691	12/10/12 22:30	DH	TAL SF

Client Sample ID: MW-7

Date Collected: 12/07/12 09:55
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	126619	12/08/12 03:51	AC	TAL SF

Client Sample ID: MW-8

Date Collected: 12/07/12 07:56
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	126619	12/08/12 04:22	AC	TAL SF
Total/NA	Prep	3510C			126720	12/10/12 14:22	RU	TAL SF
Total/NA	Analysis	8015B		1	126691	12/10/12 23:28	DH	TAL SF

Client Sample ID: MW-9

Date Collected: 12/07/12 11:48
Date Received: 12/07/12 13:58

Lab Sample ID: 720-46514-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		5	126619	12/08/12 04:53	AC	TAL SF

Laboratory References:

TAL SF = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TestAmerica Pleasanton

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

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Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S 8015B	8260B / CA LUFT MS Diesel Range Organics (DRO) (GC)	SW846	TAL SF
		SW846	TAL SF

Protocol References:

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

Laboratory References:

TAL SF = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

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TestAmerica Pleasanton

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-46514-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46514-1	MW-1	Water	12/07/12 07:25	12/07/12 13:58
720-46514-2	MW-2	Water	12/07/12 12:18	12/07/12 13:58
720-46514-3	MW-3	Water	12/07/12 11:12	12/07/12 13:58
720-46514-4	MW-4	Water	12/07/12 08:40	12/07/12 13:58
720-46514-5	MW-5	Water	12/07/12 09:20	12/07/12 13:58
720-46514-6	MW-6	Water	12/07/12 10:33	12/07/12 13:58
720-46514-7	MW-7	Water	12/07/12 09:55	12/07/12 13:58
720-46514-8	MW-8	Water	12/07/12 07:56	12/07/12 13:58
720-46514-9	MW-9	Water	12/07/12 11:48	12/07/12 13:58

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TestAmerica Pleasanton

San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

phone 925.484.1919 fax 925.600.3002

720-46514 Chain of Custody Record

142805

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Kristene Tidwell		Site Contact:		Date:	COC No:	
Broadbent & Associates, Inc. 875 Cotting Lane, Suite G Vacaville, CA 95688 Phone: 707-455-7290 Fax: 707-445-7295 Project Name: Arcadis 11126 1700 Powell Street, Emeryville, CA P O # GP09BPNA.C044	Tel/Fax: 707-455-7290 / 707-445-7295		Lab Contact: Dimple Sharma		Carrier:	of COCs	
Analysis Turnaround Time						Job No.	
Calendar (C) or Work Days (W)						SDG No.	
TAT if different from Below <i>Std</i>							
<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Sample Specific Notes:
MW-1	12/7/2012	0725	GRAB	AQ	3	GRO by 8015M	
MW-2	12/7/2012	1218	GRAB	AQ	3	DRO by 3015M	
MW-3	12/7/2012	1112	GRAB	AQ	5	BTX/X5 FO + EDB, 1,2-DCA	
MW-4	12/7/2012	0840	GRAB	AQ	5	BTX/TBA, MIBE & TAME	
MW-5	12/7/2012	0920	GRAB	AQ	28	TBA, MTBE & TAME	VCA broke after sampling
MW-6	12/7/2012	1033	GRAB	AQ	5		incomplete
MW-7	12/7/2012	0955	GRAB	AQ	3		
MW-8	12/7/2012	0756	GRAB	AQ	5		
MW-9	12/7/2012	1148	GRAB	AQ	3		
TB-11126-12072012	-	-	GRAB	AQ	1		On Hold
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other							
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Special Instructions/QC Requirements & Comments: <i>* MW-5 sampling required traffic control. VCA broke after sampling and traffic control offsite.</i>							
Relinquished by: <i>Alex Martinez</i>	Company: <i>Broadbent</i>	Date/Time: <i>12/7/12 13:58</i>	Received by: <i>JM Bulk</i>	Company: <i>TestAmerica</i>	Date/Time: <i>12/7/12 13:58</i>	<i>0.90 C</i>	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 720-46514-1

Login Number: 46514

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Apostol, Anita

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A GEO_REPORT FILE

SUCCESS

Your GEO_REPORT file has been successfully submitted!

Submittal Type: GEO_REPORT
Report Title: Third Quarter and Fourth Quarter 2012 Semi-Annual Groundwater Monitoring Report 022013
Report Type: Monitoring Report - Semi-Annually
Report Date: 2/20/2013
Facility Global ID: T0600100208
Facility Name: BP #11126
File Name: CA-11126 022013 BP - 4Q12 GWMR.pdf
Organization Name: ARCADIS
Username: ARCADISBP
IP Address: 216.207.98.101
Submittal Date/Time: 2/20/2013 1:20:43 PM
Confirmation Number: **9421909391**

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