ARCADIS
Infrastructure · Water · Environment · Buildings

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Ms. Dilan Roe
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

ENVIRONMENT

Subject:
First Quarter and Second Quarter 2013
Semi-Annual Groundwater Monitoring Report
Former BP Station #11126,
1700 Powell Street, Emeryville, California
Regulatory Site No: RO0000066

Date:
July 18, 2013

Contact:
Hollis Phillips

Phone:
415.432.6903

Email:
hollis.phillips@arcadis-us.com

Our ref:
GP09BPNA.C044.N0000

Dear Ms. Roe:

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.

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

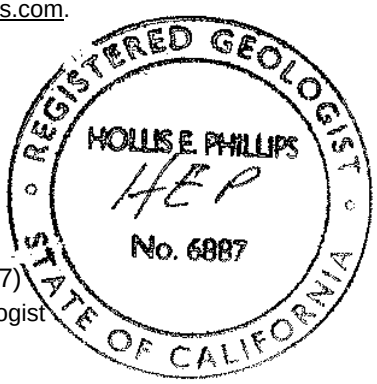
I declare, to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct. If you have any questions or comments regarding the content of this report, please contact Jamey Peterson by telephone at 707.776.0865 x 27 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.

Sincerely,

ARCADIS U.S., Inc.

Jamey Peterson
Staff Geologist

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



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GP09BPNA.C044.N0000

Dear Ms. Roe:

ARCADIS U.S., Inc. (ARCADIS) has prepared this *First Quarter and Second Quarter 2013 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).

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 (January to June 2013)

- Conducted groundwater monitoring/sampling for Second Quarter on June 6, 2013.
- Prepared and submitted the *Third Quarter and Fourth Quarter 2012 Monitoring Report*, dated February 20, 2013.

Work Proposed – Reporting Period (July to December 2013)

- Submit this *First Quarter and Second Quarter 2013 Semi-Annual Groundwater Monitoring Report*, contained herein.
- Groundwater monitoring/sampling activities are scheduled to be conducted during Fourth 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. Second Quarter 2013 groundwater monitoring was conducted on June 6, 2013 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 3.73 feet (MW-1) to 10.03 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 Second Quarter 2013 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 Second Quarter 2013 sampling event are included in Appendices B and C, respectively.

Groundwater samples were collected on June 6, 2013 from wells MW-1 through MW-11, 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. MW-1 through MW-9 were sampled for 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, MW-7, 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).

Monitoring wells MW-10 and MW-11 were sampled for MTBE only.

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 six of the nine wells sampled with concentrations ranging from 160 micrograms per liter (µg/L) (MW-6) to 20,000 µg/L (MW-2). GRO concentrations were below analytical detection limits at three monitoring wells sampled during this reporting period.

- DRO was detected in all five of the wells sampled with concentrations ranging from 300 µg/L (MW-3) to 3,900 µg/L (MW-6).

- Benzene was detected in four of the five wells sampled with concentrations ranging from 2.1 µg/L (MW-5) to 6,100 µg/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 0.67 µg/L (MW-5) to 86 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 8.9 µg/L (MW-9) to 670 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 3.2 µg/L (MW-5) to 1,200 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 nine of the eleven wells sampled with concentrations ranging from 0.50 µg/L (MW-8) to 2,000 µg/L (MW-2). MTBE concentrations were below analytical detection limits in two monitoring wells sampled during this reporting period.

- TBA was detected in all nine wells sampled with concentrations ranging from 5.7 µg/L (MW-8) to 26,000 µg/L (MW-4).

- TAME was detected in two of nine wells sampled at concentrations of 33 µg/L (MW-8) and 96 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)
Project Manager/Principal Geologist

Enclosures:

Table 1	Well Construction Details
Table 2	Historical Groundwater Monitoring and Analytical Results
Figure 1	Site Vicinity Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation Contour Map – June 6, 2013
Figure 4	Groundwater Hydrocarbon Concentration Map – June 6, 2013
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	Comments
		Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)	(feet)	
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	(DUP)
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	<5.0	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	1,800	--	
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	--	
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	--	

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	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	(P)
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	0.57	(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	(P)
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	(P)
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	(P)
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-1	6/6/2013		10.16	3.73	--	6.43	--	240	11	6.7	14	9.8	6.9	170	--	--	<0.50	--	--	
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	(Dup)
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	(Dup)
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	--	--	--	--	--	--	
MW-2	5/26/2000		8.56	4.66	--	3.90	--	--	--	--	--	--	--	--	--	--	--	--	--	

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	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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
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	<500	<500	<500	98,000	--	--	--	--	--	--	
MW-2	2/19/2003		8.56	4.14	--	4.42	--	78,000	1,100	<500	<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	<25,000	--	
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	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	<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	--	(P)
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	(P)
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	(P)
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	(P)
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-2	6/6/2013		11.39	4.95	--	6.44	--	20,000	6,100	86	670	1,200	2,000	2,600	<10	<10	96	--	--	
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	<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	
MW-3	7/30/1996		8.25	6.04	--	2.21	--	--	--	--	--	--	--	--	--	--	--	--	--	

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	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	<7.5	680	--	--	--	--	--	--	
MW-3	6/27/2001		8.25	5.62	--	2.63	690	460	<2.5	<2.5	<2.5	<7.5	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	<1.0	55	<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	(P)
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	--	(P)
MW-3	6/29/2011		10.73	5.00	--	5.73	250	<50	--	--	--	--	0.73	73	--	--	<0.50	--	0.45	(P)
MW-3	1/30/2012		10.73	5.22	--	5.51	160	<50	--	--	--	--	<0.50	65	--	--	<0.50	--	1.21	(P)
MW-3	6/27/2012		10.73	5.19	--	5.54	270	<50	--	--	--	--	1.6	250	--	--	<0.50	--	1.14	(P)
MW-3	12/7/2012		10.73	4.65	--	6.08	110	<50	--	--	--	--	<0.50	20	--	--	<0.50	--	1.10	
MW-3	6/6/2013		10.73	5.51	--	5.22	300	<50	--	--	--	--	1.9	540	--	--	<0.50	--	--	
MW-4	11/4/1992		8.12	6.66	--	1.46	--	340	4.5	<0.5	4.3	<0.5	--	--	--	--	--	--	--	
MW-4	10/12/1993		8.12	6.87	--	1.25	--	160	5.8	1.4	0.8	2.7	261	--	--	--	--	--	--	

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	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	2.8	<1.0	<250	--	
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	--	

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Historical Groundwater Monitoring and Analytical Results
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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	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	<1.0	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	<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-4	6/6/2013		10.58	6.53	--	4.05	600	<500	--	--	--	--	6.7	26,000	--	--	<5.0	--	--	
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	3/22/2000		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	--	
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	--	

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	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	<2.5	<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	(P)
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	(P)
MW-5	6/27/2012		10.18	5.39	--	4.79	--	--	--	--	--	--	--	--	--	--	--	--	1.52	(P, sampled 6/29/12)
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-5	6/6/2013		10.18	5.47	--	4.71	--	3,800	2.1	0.67	<0.50	3.2	3.7	41	--	--	<0.50	--	--	
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	0.6	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	<5.0	<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	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	5/26/2000		8.52	5.72	--	2.80	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	9/15/2000		8.52	6.02	--	2.50	--	--	--	--	--	--	--	--	--	--	--	--	--	

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	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	<0.50	<0.50	<0.50	<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	(P)
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	(P)
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-6	6/6/2013		11.01	5.99	--	5.02	3,900	160	--	--	--	--	3.8	150	--	--	<0.50	--	--	
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	<1.0	<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	
MW-7	5/17/1997		7.61	6.42	--	1.19	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/11/1997		7.61	6.06	--	1.55	--	--	--	--	--	--	--	--	--	--	--	--	--	

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	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	2.8	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	0.64	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	(P)
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	(P)
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-7	6/6/2013		10.11	5.43	--	4.68	570	<50	<0.50	<0.50	<0.50	<1.0	2.8	1,600	--	--	<0.50	--	--	
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	
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	

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	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	<5.0	<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	2.6	<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	0.98	<1.0	6.3	--	--	--	--	--	--	
MW-8	3/12/2002		8.60	4.35	--	4.25	--	330	<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	0.94	0.52	140	--	--	--	--	--	--	
MW-8	2/19/2003		8.60	4.45	--	4.15	--	<2,500	<25	<25	<25	<25	800	--	--	--	--	--	--	
MW-8	6/6/2003		8.60	5.00	--	3.60	--	<50,000	<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	2,400	<1,000	<25	<25	44	<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	--	--	
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	
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)

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	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-8	6/6/2013		11.08	4.43	--	6.65	830	200	--	--	--	--	0.50	5.7	--	--	<0.50	--	--	
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	<5.0	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	--	
MW-9	12/28/2005		10.55	2.99	--	7.56	--	14,000	1,400	22	350	450	2,200	1,800	<20	<10	49	<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-9	3/23/2006		10.55	2.50	--	8.05	--	4,100	250	<10	130	110	330	2,400	<20	<10	<10	<2,000	--	
MW-9	6/5/2006		10.55	3.34	--	7.21	--	8,200	2,200	79	500	1,200	1,800	1,100	<25	<13	75	<2,500	--	
MW-9	9/19/2006		10.55	4.06	--	6.49	--	9,000	2,600	15	440	370	3,100	3,900	<25	<13	100	<6,300	--	
MW-9	12/1/2006		10.55	3.88	--	6.67	--	5,400	1,600	15	310	140	1,400	2,400	<25	<13	46	<6,300	--	
MW-9	3/1/2007		10.55	2.79	--	7.76	--	6,300	250	<13	270	75	240	580	<25	<13	<13	<6,300	--	
MW-9	6/1/2007		10.55	3.53	--	7.02	--	6,500	980	16	250	95	1,800	2,300	<25	<13	50	<6,300	--	
MW-9	9/13/2007		10.55	4.78	--	5.77	--	4,500	170	14	79	27	640	7,300	<25	<13	28	<6,300	--	
MW-9	11/21/2007		10.55	4.41	--	6.14	--	4,600	790	<13	97	34	2,000	3,500	<25	<13	42	<6,300	--	
MW-9	2/29/2008		10.55	3.41	--	7.14	--	6,800	700	19	250	98	1,100	2,400	<25	<13	35	<6,300	--	
MW-9	5/23/2008		10.55	4.53	--	6.02	--	5,300	390	22	130	68	1,200	6,800	<25	<12	33	<6,200	--	
MW-9	9/26/2008		10.55	5.07	--	5.48	--	10,000	94	11	26	35	280	12,000	<1.0	<1.0	6.2	<250	--	
MW-9	12/23/2008		10.55	4.04	--	6.51	--	2,600	420	7.9	110	84	870	1,000	<1.0	<1.0	23	<250	--	
MW-9	3/9/2009		10.55	3.45	--	7.10	--	3,400	45	2.2	51	18	180	610	<1.0	<1.0	4	<250	--	
MW-9	5/28/2009		10.55	4.17	--	6.38	--	4,400	420	14	270	170	720	840	<1.0	<1.0	21	<250	0.94	
MW-9	12/10/2009		10.55	4.11	(Sheen)	6.44	--	4,400	240	7.9	17	19	780	4,200	<2.5	<2.5	15	<500	--	
MW-9	6/29/2010		10.55	4.30	--	6.25	--	4,200	680	15	110	130	1,200	4,200	<10	<10	30	<2,000	0.37	(P)
MW-9	12/30/2010		10.55	2.79	--	7.76	--	420	6.7	<0.50	2.1	2.0	13	22	<0.50	<0.50	<0.50	<250	0.79	(P)
MW-9	6/29/2011		10.55	3.72	--	6.83	--	4,700	600	13	370	120	900	960	--	--	29	--	0.48	(P)
MW-9	1/30/2012		10.55	4.09	--	6.46	--	2,300	210	5.1	10	20	630	1,600	--	--	20	--	0.75	(P)
MW-9	6/27/2012		10.55	3.51	--	7.04	--	810	78	<2.5	4.6	7.9	130	160	--	--	4.9	--	1.43	(P)
MW-9	12/7/2012		10.55	3.38	--	7.17	--	2,000	130	5.1	6.1	11	250	340	--	--	9.6	--	1.04	
MW-9	6/6/2013		10.55	4.30	--	6.25	--	3,400	480	14	8.9	15	680	2,200	--	--	33	--	--	
MW-10	4/25/2005		12.53	8.37	--	4.16	--	<50	<0.5	<0.5	<0.5	<0.5	1.5	<20	<0.5	<0.5	<0.5	<100	--	
MW-10	9/30/2005		12.53	8.41	--	4.12	--	<50	<0.5	<0.5	<0.5	<1.0	1.5	<5.0	<0.5	<0.5	<0.5	<50	--	
MW-10	12/28/2005		12.53	7.78	--	4.75	--	<50	<0.5	<0.5	<0.5	<1.0	0.78	<5.0	<1.0	<0.5	<0.5	<100	--	
MW-10	3/23/2006		12.53	7.77	--	4.76	--	<50	<0.5	<0.5	<0.5	<1.0	0.67	<5.0	<1.0	<0.5	<0.5	<100	--	
MW-10	6/5/2006		12.53	8.38	--	4.15	--	<50	<0.5	<0.5	<0.5	<1.0	1.8	<5.0	<1.0	<0.5	<0.5	<100	--	
MW-10	9/19/2006		12.53	7.99	--	4.54	--	<50	<0.5	<0.5	<0.5	<1.0	0.59	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-10	12/1/2006		12.53	5.47	--	7.06	--	<50	<0.5	<0.5	<0.5	<1.0	0.89	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-10	3/1/2007		12.53	7.92	--	4.61	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-10	6/1/2007		12.53	8.55	--	3.98	--	<50	<0.5	<0.5	<0.5	<1.0	1.2	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-10	9/13/2007		12.53	8.71	--	3.82	--	<50	<0.5	<0.5	<0.5	<1.0	0.94	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-10	11/21/2007		12.53	8.84	--	3.69	--	<50	<0.5	<0.5	<0.5	<1.0	2.2	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-10	2/29/2008		12.53	8.20	--	4.33	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-10	5/23/2008		12.53	8.49	--	4.04	--	<50	<0.5	<0.5	<0.5	<1.0	2.2	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-10	9/26/2008		12.53	9.91	--	2.62	--	<50	<1.0	<1.0	<1.0	<1.0	3	<5.0	<1.0	<1.0	<1.0	<250	--	
MW-10	12/23/2008		12.53	8.60	--	3.93	--	<50	<1.0	<1.0	<1.0	<1.0	2.7	<5.0	<1.0	<1.0	<1.0	<250	--	
MW-10	3/9/2009		12.53	7.68	--	4.85	--	<50	<1.0	<1.0	<1.0	<1.0	<1.0	6.2	<1.0	<1.0	<1.0	<250	--	
MW-10	5/28/2009		12.53	8.71	--	3.82	--	<50	<1.0	<1.0	<1.0	<1.0	1.3	<5.0	<1.0	<1.0	<1.0	<250	2.76	
MW-10	12/10/2009		12.53	8.35	--	4.18	--	<50	<0.50	<0.50	<0.50	<1.0	1.5	<4.0	<0.50	<0.50	<0.50	<100	1.81	
MW-10	6/29/2010		12.53	8.43	--	4.10	--	<50	<0.50	<0.50	<0.50	<1.0	1.6	<4.0	<0.50	<0.50	<0.50	<100	1.00	(P)
MW-10	12/30/2010		12.53	6.62	--	5.91	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<250	1.26	(P)
MW-10	6/29/2011		12.53	7.16	--	5.37	--	--	--	--	--	--	<0.50	--	--	--	--	--	0.49	(P)
MW-10	1/30/2012		12.53	7.33	--	5.20	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	6/27/2012		12.53	7.70	--	4.83	--	--	--	--	--	--	<0.50	--	--	--	--	--	1.14	(P)
MW-10	12/7/2012		12.53	6.29	--	6.24	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)
MW-10	6/6/2013		12.53	7.65	--	4.88	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	
MW-11	4/25/2005		14.55	9.29	--	5.26	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<0.5	<0.5	<0.5	<100	--	
MW-11	9/30/2005		14.55	10.23	--	4.32	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	--	
MW-11	12/28/2005		14.55	9.09	--	5.46	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<100	--	
MW-11	3/23/2006		14.55	8.75	--	5.80	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<100	--	
MW-11	6/5/2006		14.55	9.47	--	5.08	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<100	--	
MW-11	9/19/2006		14.55	10.16	--	4.39	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-11	12/1/2006		14.55	10.46	--	4.09	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-11	3/1/2007		14.55	9.62	--	4.93	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-11	6/1/2007		14.55	9.97	--	4.58	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
MW-11	9/13/2007		14.55	10.42	--	4.13	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	

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

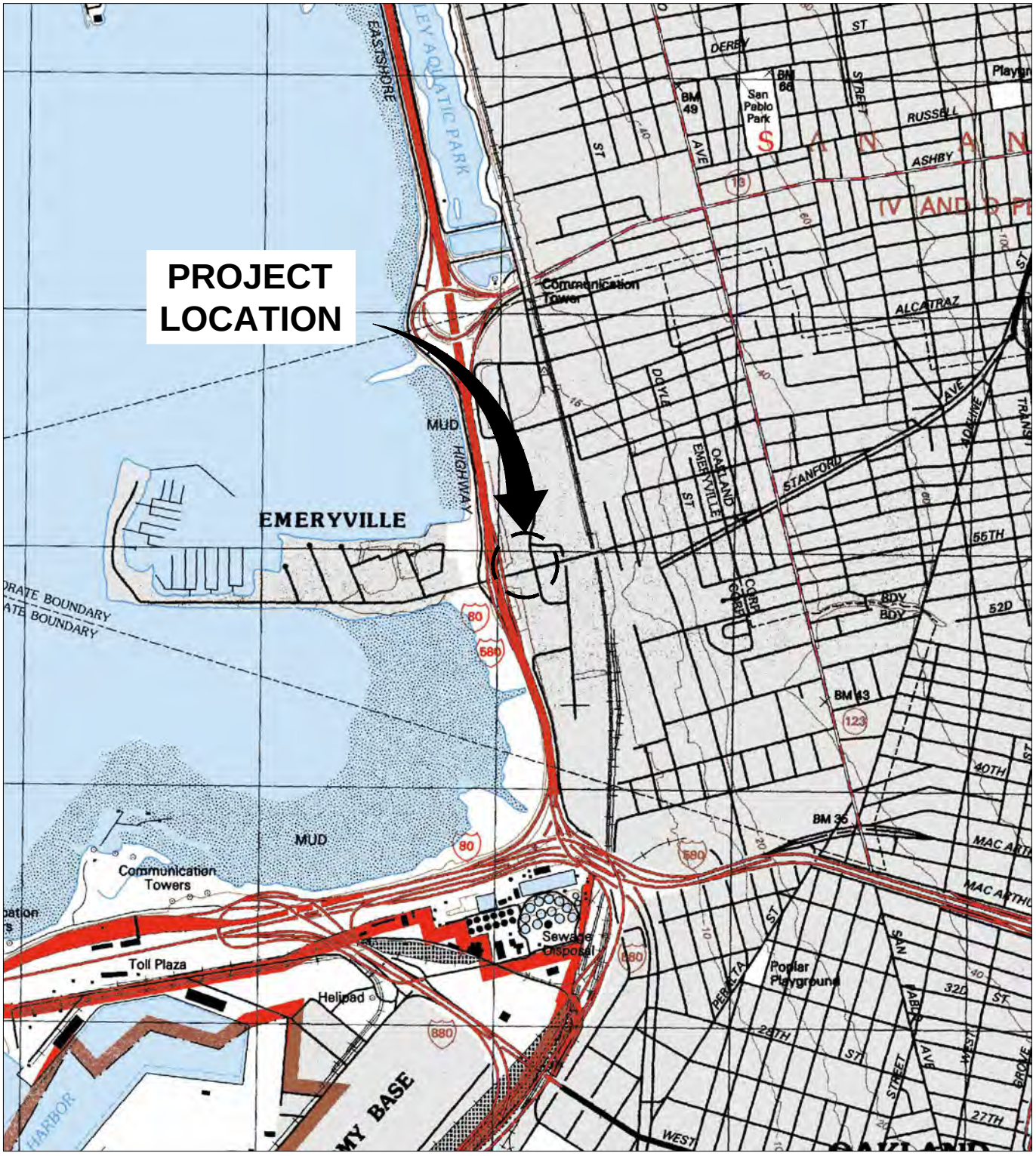
Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/l)	Notes
MW-11	11/21/2007		14.55	10.64	--	3.91	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<1.0	<0.5	<0.5	<250	--	
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	(P)
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	(P)
MW-11	6/29/2011		14.55	9.40	--	5.15	--	--	--	--	--	--	<0.50	--	--	--	--	--	0.75	(P)
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	(P)
MW-11	12/7/2012		14.55	8.85	--	5.70	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)
MW-11	6/6/2013		14.55	10.03	--	4.52	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	

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.

ARCADIS

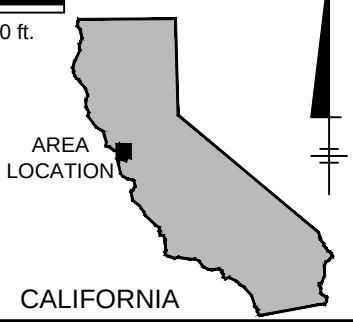
FIGURES



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., OAKLAND WEST, CALIFORNIA, 1993.

0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.



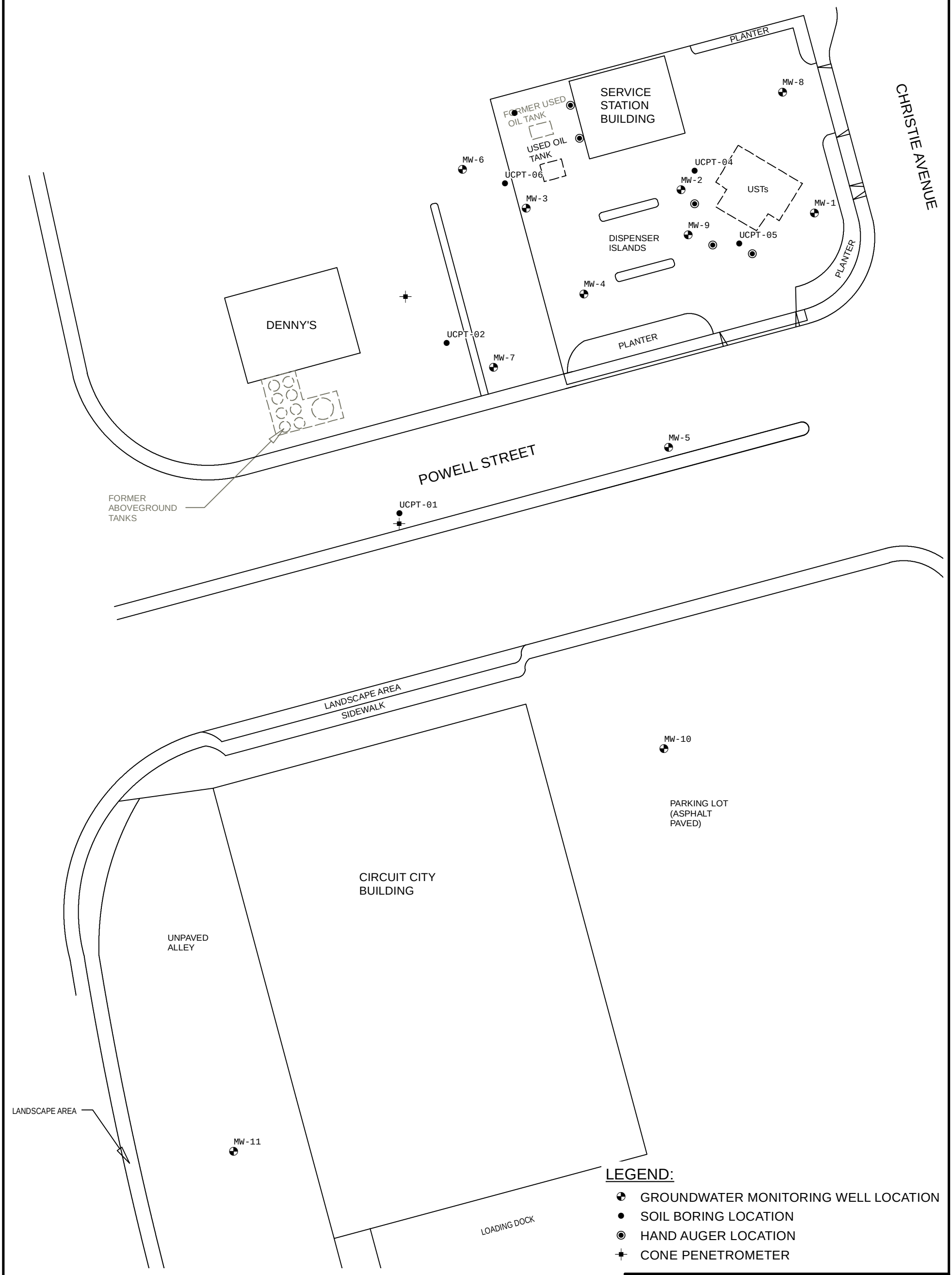
76 (FORMER BP) SERVICE STATION NO. 11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

SITE VICINITY MAP

ARCADIS

FIGURE
1

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: KGPETERS LD: PIC: PM: TM:
PROJECT: PATH: H:\GISPROJECTS_ENV\BP_FOXGLOVE\CA\CA11126\GIS\MXD\CA11126_FIG2_SITEMAP CLOSURE.MXD DATE: 6/26/2013 7:12:53 AM



LEGEND:

- GROUNDWATER MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- CONE PENETROMETER

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES
2. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED

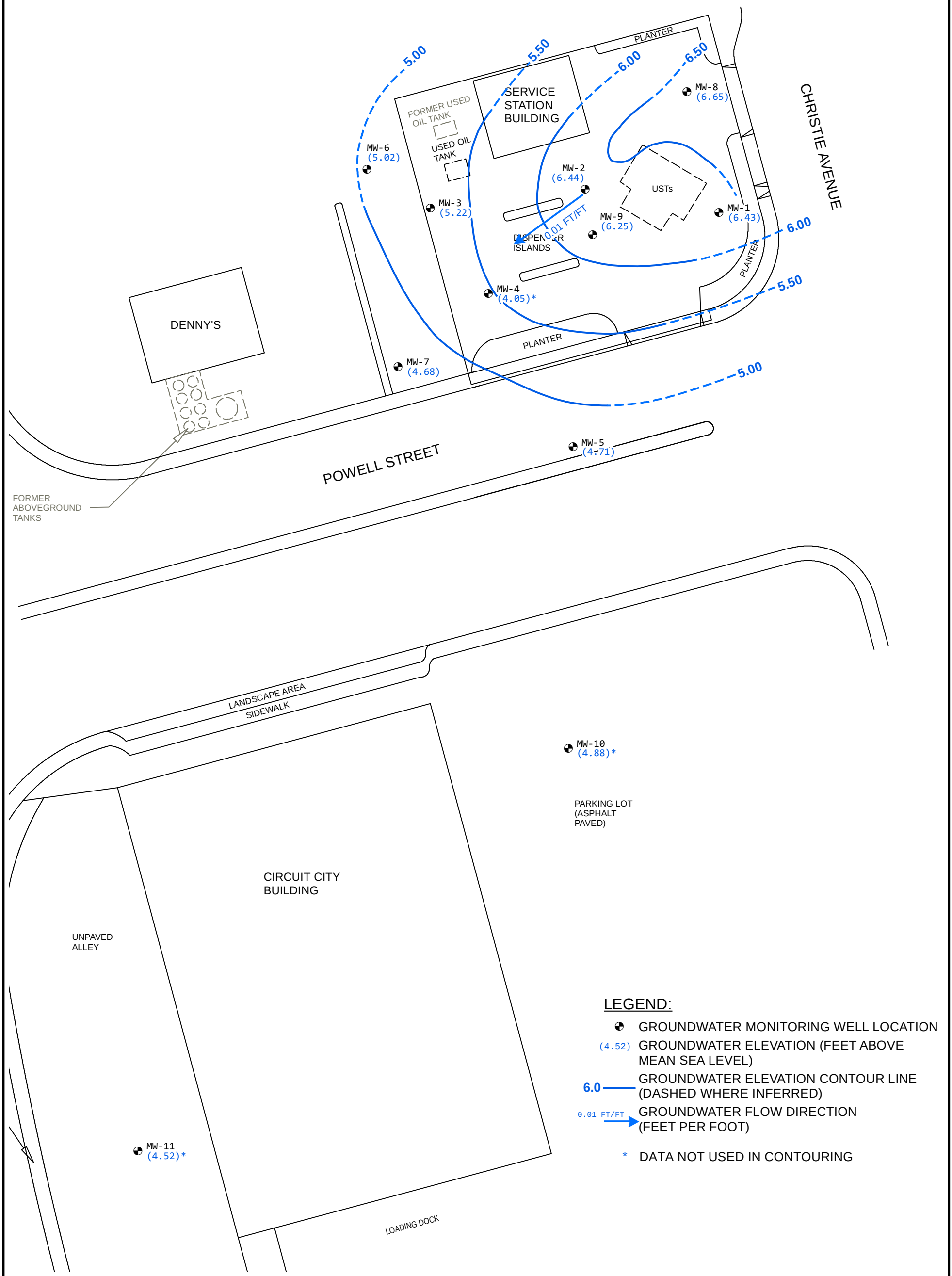
0 40 80
SCALE IN FEET

BP WEST COAST PRODUCTS, LLC
SITE NO. 11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

SITE MAP

ARCADIS

FIGURE
2



LEGEND:

- GROUNDWATER MONITORING WELL LOCATION
- (4.52) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- 6.0 GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED)
- 0.01 FT/FT GROUNDWATER FLOW DIRECTION (FEET PER FOOT)
- * DATA NOT USED IN CONTOURING

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES
2. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED

0 40 80
SCALE IN FEET

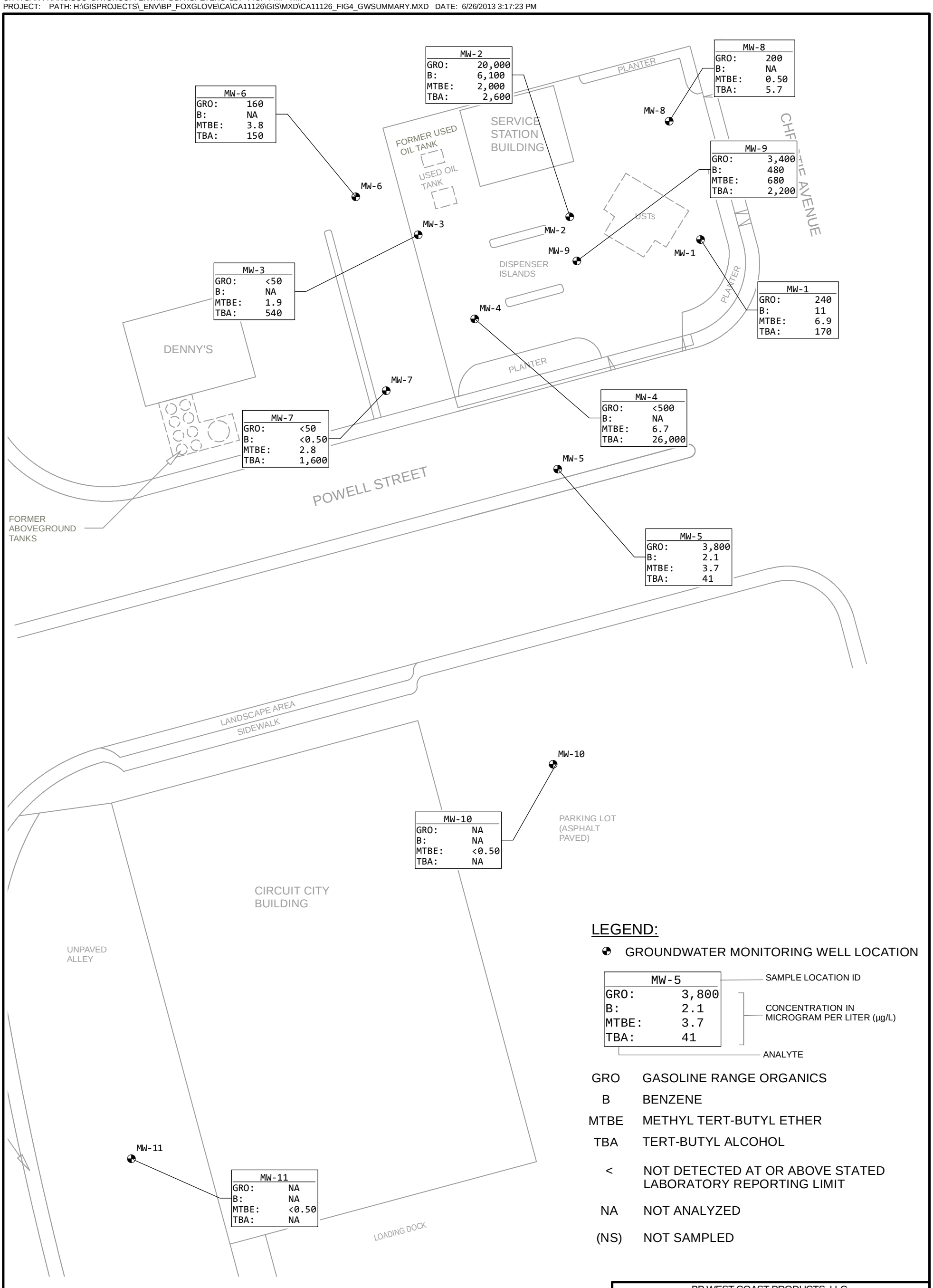
BP WEST COAST PRODUCTS, LLC
SITE NO. 11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

FIRST AND SECOND QUARTER 2013
SEMI-ANNUAL GROUNDWATER MONITORING REPORT

GROUNDWATER ELEVATION CONTOUR MAP JUNE 6, 2013

ARCADIS

FIGURE
3



LEGEND:

- GROUNDWATER MONITORING WELL LOCATION

MW-5
GRO: 3,800
B: 2.1
MTBE: 3.7
TBA: 41

- SAMPLE LOCATION ID
- CONCENTRATION IN MICROGRAM PER LITER (µg/L)
- ANALYTE

GRO	GASOLINE RANGE ORGANICS
B	BENZENE
MTBE	METHYL TERT-BUTYL ETHER
TBA	TERT-BUTYL ALCOHOL
<	NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT
NA	NOT ANALYZED
(NS)	NOT SAMPLED

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES
2. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED

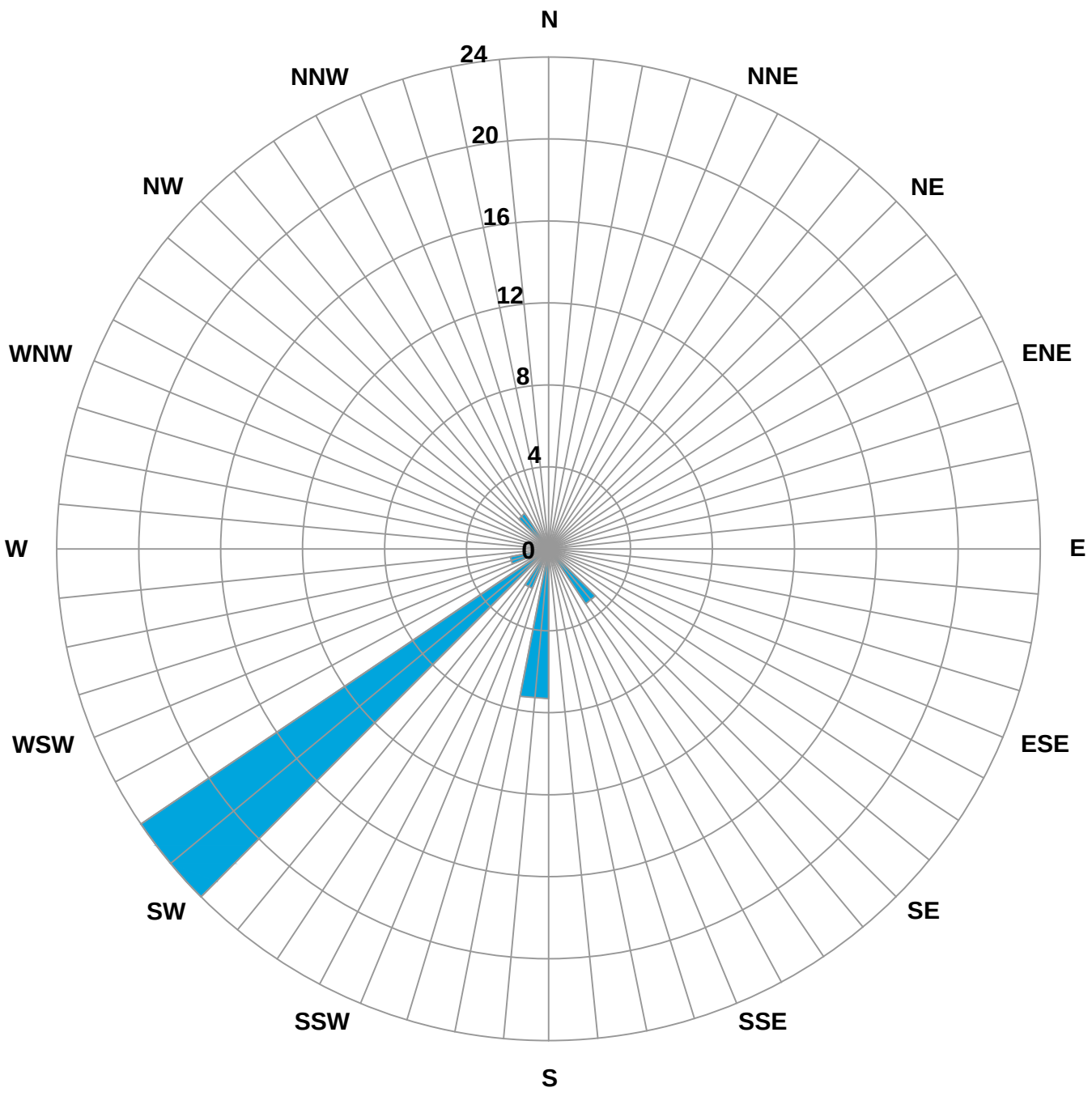
0 40 80
SCALE IN FEET

BP WEST COAST PRODUCTS, LLC
SITE NO. 11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA
FIRST AND SECOND QUARTER 2013
SEMI-ANNUAL GROUNDWATER MONITORING REPORT

GROUNDWATER HYDROCARBON CONCENTRATION MAP JUNE 6, 2013

ARCADIS

FIGURE
4



LEGEND

CONCENTRIC CIRCLES REPRESENT 43 MONITORING EVENTS CONDUCTED BETWEEN THE FIRST QUARTER 2001 AND THE SECOND QUARTER 2013.

GROUNDWATER FLOW DIRECTION

FORMER BP SERVICE STATION NO. 11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

GROUNDWATER FLOW DIRECTION ROSE DIAGRAM

ARCADIS

FIGURE
5

Appendix A

Previous Investigations and Site History Summary

Site Description

Former BP service station No. 11126 (the Site) is located at 1700 Powell Street in Emeryville. The property is identified as APN 49-1494-4-10. Land use in this area is largely commercial. The Site is approximately 350 feet east of Interstate 80/580.

The site is currently in use as a 76-branded service station. BP acquired the gasoline retail outlet from Mobil Oil Corporation in 1989. In 1994, BP transferred the gasoline retail outlet to Tosco Corporation (Tosco, now ConocoPhillips). The Site surface structures consist of a station building located in the northwestern portion of the Site, two dispenser islands in the southwestern portion of the Site, a concrete slab and canopy. Three underground gasoline storage tanks (USTs; one 6,000-gallon UST, one 10,000 gallon UST, and one 12,000-gallon UST) are located east of the dispenser islands. Historical documents indicate that these USTs were installed in the late 1980s (SECOR 2007). The majority of the Site surface is paved with concrete and asphalt.

The area surrounding the Site was historically used for industrial purposes before being developed into commercial and retail shopping centers. Surrounding land use is largely commercial: a Denny's restaurant is located west of the Site; a shopping plaza is located south of the Site, a bank and offices are located to the north, and a furniture store is located to the east.

The topography of the surrounding area slopes gently to the west, toward San Francisco Bay. The Site is situated at an approximate elevation of 8 feet above mean sea level.

Previous Site Investigations and Cleanup Activities

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. 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 (µg/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.

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 TPH-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-dichlorethene (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. 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 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.

SECOR prepared a Remedial Action Plan (RAP), dated March 30, 2007, to perform source area remediation at the Site. Based on their feasibility analysis and review of previous site assessment and remedial activities, SECOR recommended that oxygen

injections be implemented at the Site (SECOR 2007). However, no testing was conducted.

On June 1, 2009, Stantec Consulting Corporation (Stantec) submitted the Work Plan (WP) for Additional Assessment and Extension Request to ACEH, proposing the installation of one off-site monitoring well and three on-site soil borings to 6 ft bgs. The ACEH directive, issued on July 10, 2009 in response to this WP, indicated that:

- One monitoring well was likely not sufficient to provide off-site plume characterization as there were potentially two hydraulic gradient directions;

- Soil borings should be advanced beyond 6 ft bgs to evaluate residual source contamination because historical groundwater levels had ranged between 4 and 10 ft bgs; and

- A preferential pathway study should be conducted.

On August 2, 2010, ARCADIS submitted the Work Plan Addendum for Additional Assessment (the WP Addendum) based on the original Stantec WP and the ACEH directive. In the WP Addendum, ARCADIS proposed to: (1) conduct CPT with laser induced fluorescence [LIF] to evaluate both off-site groundwater and on-site soil; and (2) perform a preferential pathway study to assess the probability of on-site contaminants migrating off-site via potential conduits. ARCADIS completed the proposed soil and groundwater investigation field activities in January 2011, as documented in the Soil and Water Investigation Report (ARCADIS 2011) and briefly summarized below:

- Five CPTs (CPT-01 through CPT-06 both on- and off-site) were advanced to approximately 25 ft bgs to collect lithologic data (Figure 3). The CPT logs were consistent with historical boring logs for nearby monitoring wells;

- Four LIF profiles were collected with the CPT rods to identify poly-aromatic hydrocarbons (PAHs), and free phase and residual non-aqueous phase liquid (NAPL) in the subsurface. Based on the LIF results NAPL is not present at the Site;

- A total of three Hydropunch^{TM} grab groundwater samples were collected from off-site borings UCPT-1 and UCPT-2. Samples were collected at 7 ft bgs from both borings, and at 21 ft bgs from UCPT-2 only. MTBE and TBA were detected at

UCPT-1 at concentrations of 14 µg/L and 63 µg/L, respectively. No analytes were detected at UCPT-2 at concentrations above the laboratory reporting limits.; and

- A total of five soil samples were collected from three borings (UCPT-3 at 7 ft bgs, UCPT-4 at 7.5 and 12.5 ft bgs, and UCPT-5 at 11.5 and 14.5 ft bgs) based on the CPT lithology and UVOST results. Concentrations of MTBE and TBA were detected in four samples; TPHg and ethylbenzene were detected in three samples; and benzene and total xylenes were detected in two samples.

The investigation results indicated no to low impacts of off-site groundwater contamination, and very low levels of soil contamination on-site.

On August 23, 2011, ARCADIS conducted slug-out tests at on-site monitoring wells MW-2, MW-4, and MW-9. A total of 4.5 gallons of groundwater were removed from MW-2, 4 gallons were removed from MW-4, and 18 gallons were removed from MW-9 over the course of two tests in each well; and depth-to-water was monitored and recorded at each well until water levels returned to near static conditions. Results of the slug-out tests indicate projected injection rates of generally less than one gallon per minute (gpm) in all tested monitoring wells and less than approximately 0.1 gpm at MW-9 (ARCADIS 2011b).

References

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

ARCADIS U.S., Inc., 2011a. Soil and Water Investigation Report, 76 (Former BP) Service Station No. 11126, 1700 Powell Street, Emeryville, California, ACEH Case # RO0000066. February 11.

ARCADIS U.S., Inc., 2011b. Feasibility Study and Corrective Action Plan, Former BP Station No. 11126. October 14.

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

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

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

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

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

Appendix B

Groundwater Sampling Data Package

BROADBENT

DAILY REPORT

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

Field Representative(s): Alex Martinez Day: Thursday Date: 6/6/13

Time Onsite: From: 0700 To: 1430 ; From: _____ To: _____ ; From: _____ To: _____

- x Signed HASP
- x Safety Glasses
- x Hard Hat
- x Steel Toe Boots
- x Safety Vest
- x UST Emergency System Shut-off Switches Located
- x Proper Gloves
- x Proper Level of Barricading
- ___ Other PPE (describe) _____

Weather: Overcast

Equipment In Use: Peristaltic pump, U53 meter, interface probe

Visitors: Statewide

TIME:	WORK DESCRIPTION:
0700	Arrived onsite
0715	Set up @ MW-11
0800	Set up @ MW-10
0830	Set up @ MW-3
0950	Equipment malfunction (interface probe). Contacted equipment supplier
	for rental.
1015	Interface probe rental arrived. Resumed sampling @ MW-6
1045	Set up @ MW-7
1120	Set up @ MW-4
1135	Statewide arrived onsite.
1215	Set up @ MW-5
1240	Set up @ MW-1
1315	Set up @ MW-9
1335	Set up @ MW-8
1400	Set up @ MW-2
1430	Completed fieldwork & offsite.

Signature: _____

BROADBENT

GROUNDWATER MONITORING SITE SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field 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					NOTES
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	8				1248	—	—	3.73	11.52	
MW-2	11				1402	—	—	4.95	12.00	
MW-3	3				0840	—	—	5.51	11.60	
MW-4	6				1132	—	—	6.53	11.00	
MW-5	7				1218	—	—	5.47	12.45	
MW-6	4				1019	—	—	5.99	12.10	
MW-7	5				1050	—	—	5.43	13.44	
MW-8	10				1340	—	—	4.43	13.85	
MW-9	9				1316	—	—	4.30	14.02	
MW-10	2				0805	—	—	7.65	17.18	
MW-11	1				0734	—	—	10.03	16.93	

* 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 Mendez

Revision: 8/19/11

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 111126 Project No.: 09-88-662 Date: 1/6/13

Field Representative: _____

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

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump x Flow Cell
x Disp. Tubing ___ 12V Pump x Peristaltic Pump Other/ID#:

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

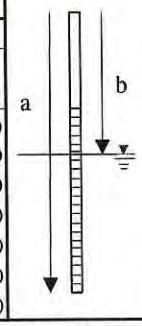
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

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): 11.52 (ft)
Initial Depth to Water (b): 3.73 (ft)
Pump In-take Depth = b + (a-b)/2: 7.62 (ft)
Maximum Allowable Drawdown = (a-b)/8: 0.97 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1253	0.5	22.93	6.87	0.489	1.75	-83	162	
1255	0.5	22.81	6.83	0.488	1.33	-94	151	
1257	1.0	22.80	6.81	0.487	1.17	-103	147	
1259	1.5	22.77	6.80	0.486	1.09	-118	148	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD x Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 4.55 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
x Disp. Pump Tubing Other:
Sample ID: MW-1 Sample Collection Time: 1309 (24:00)
Containers (#): 3 VOA (x preserved or ___ unpreserved) ___ Liter Amber
___ Other: _____ ___ Other: _____
___ Other: _____ ___ Other: _____

GEOCHEMICAL PARAMETERS

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

Signature: _____

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: AM

Well ID: MW-2 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

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

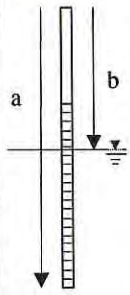
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 12.00 (ft)
Initial Depth to Water (b): 4.95 (ft)
Pump In-take Depth = b + (a-b)/2: 8.47 (ft)
Maximum Allowable Drawdown = (a-b)/8: 0.88 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1405	0.0	24.50	6.82	0.968	1.63	-91	131	
1407	0.5	24.29	6.79	0.975	1.36	-106	130	
1409	1.0	24.17	6.79	0.981	1.12	-124	134	
1411	1.5	24.20	6.79	0.972	1.04	-136	132	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 5.03 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-2 Sample Collection Time: 1415 (24:00)
Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ ___ 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 Martin

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: AM

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

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

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

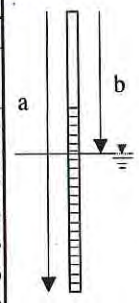
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 11.60 (ft)
Initial Depth to Water (b): 5.51 (ft)
Pump In-take Depth = b + (a-b)/2: 9.13 (ft)
Maximum Allowable Drawdown = (a-b)/8: 0.76 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0845	0.0	20.29	7.39	0.884	2.12	-72	135	
0847	0.5	20.60	7.08	0.869	1.66	-67	154	
0849	1.0	20.77	6.98	0.866	1.48	-71	159	
0851	1.5	20.92	6.95	0.867	1.38	-76	147	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 5.55 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-3 Sample Collection Time: 0855 (24:00)
Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
2 Other: 1 L NP Amber ___ 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 Mart

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: AM

Well ID: MW-4 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

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

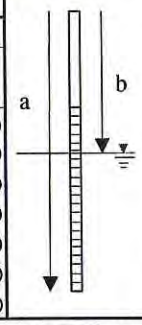
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 11.00 (ft)
Initial Depth to Water (b): 6.53 (ft)
Pump In-take Depth = b + (a-b)/2: 8.76 (ft)
Maximum Allowable Drawdown = (a-b)/8: 0.55 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1135	0.0	23.03	7.72	1.36	1.98	-93	162	
1137	0.5	22.05	7.38	1.38	1.47	-134	159	
1139	1.0	21.67	7.33	1.39	1.34	-152	158	
1141	1.5	21.27	7.32	1.91	1.30	-174	148	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 8.19 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-4 Sample Collection Time: 1145 (24:00)
Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
2 Other: 1 L NP Amber ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

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

Signature:

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: AM

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

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump x Flow Cell
x Disp. Tubing ___ 12V Pump x Peristaltic Pump Other/ID#:

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

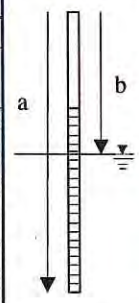
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 12.45 (ft)
Initial Depth to Water (b): 5.47 (ft)
Pump In-take Depth = b + (a-b)/2: 8.96 (ft)
Maximum Allowable Drawdown = (a-b)/8: 0.87 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1223	0.0	22.39	7.84	0.527	1.84	-105	209	
1225	0.5	22.52	7.07	0.518	1.34	-115	247	
1227	1.0	23.10	6.88	0.516	1.19	-127	247	
1229	1.5	23.28	6.83	0.516	1.11	-133	237	
1231	2.0	25.42	6.81	0.518	1.06	-138	219	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD x Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 7.80 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
x Disp. Pump Tubing Other:
Sample ID: MW-5 Sample Collection Time: 1234 (24:00)
Containers (#): 3 VOA (x preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ 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 Montes

Revision: 3/15/2013

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 111126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: AM

Well ID: MW-6 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

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

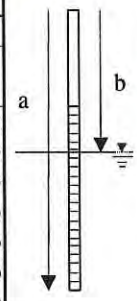
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 12.10 (ft)
Initial Depth to Water (b): 5.99 (ft)
Pump In-take Depth = b + (a-b)/2: 9.04 (ft)
Maximum Allowable Drawdown = (a-b)/8: 0.76 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1021	0.0	21.98	6.73	1.71	2.42	-37	466	Foul/sewage odor
1023	0.5	22.89	6.59	1.88	1.44	-72	493	
1025	1.0	23.28	6.65	1.96	1.33	-96	494	
1027	1.5	23.36	6.70	2.16	1.32	-113	417	
1029	2.0	23.58	6.79	2.15	1.26	-127	352	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 6.56 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-6 Sample Collection Time: 1030 (24:00)
Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
2 Other: 1 L NP Amber ___ 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 Mentzer

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: _____

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

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

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

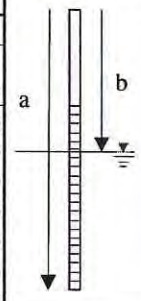
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 13.44 (ft)
Initial Depth to Water (b): 5.43 (ft)
Pump In-take Depth = b + (a-b)/2: 9.43 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.00 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1054	0.0	23.60	7.30	3.05	2.02	-96	129	
1056	0.5	24.24	7.25	2.28	1.48	-128	171	
1058	1.0	24.46	7.21	2.13	1.38	-139	172	
1100	1.5	24.63	7.19	2.02	1.29	-149	163	
1102	2.0	24.72	7.18	2.00	1.23	-159	140	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 5.63 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-7 Sample Collection Time: 1105 (24:00)
Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

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

Signature: _____

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: AM

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

PURGE EQUIPMENT

___ Disp. Bailer ___ 120V Pump X Flow Cell

X Disp. Tubing ___ 12V Pump X 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)

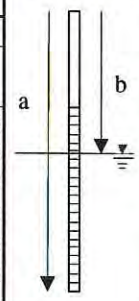
Water Column Height (WCH) = (a - b): ___(ft)

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): 4.43 (ft)

Pump In-take Depth = b + (a-b)/2: 9.14 (ft)

Maximum Allowable Drawdown = (a-b)/8: 1.17 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1342	0.0	24.74	7.11	0.446	1.88	-109	109	
1344	0.5	24.81	6.98	0.444	1.26	-129	111	
1346	1.0	24.98	6.98	0.443	1.14	-143	113	
1348	1.5	25.19	6.98	0.439	1.09	-155	115	
Previous Stabilized Parameters								

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

___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 5.11 (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing

X Disp. Pump Tubing Other:

Sample ID: MW-8 Sample Collection Time: 13.52 (24:00)

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

2 Other: 1 L NP Amber ___ Other:

___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

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

Signature:

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: AM

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

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

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

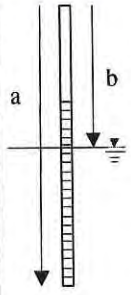
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 14.02 (ft)
Initial Depth to Water (b): 4.30 (ft)
Pump In-take Depth = b + (a-b)/2: 9.16 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.21 (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 Vol. gal or L	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1319	0.0	22.80	7.19	0.531	1.99	~~-9~~	106	
1321	0.5	22.32	6.90	0.535	1.36	-101	105	
1323	1.0	22.27	6.85	0.585	1.18	-116	106	
1325	1.5	22.27	6.84	0.585	1.12	-123	107	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 4.78 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-9 Sample Collection Time: 1330 (24:00)
Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ 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 Martin

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 111 26 Project No.: 09-58-662 Date: 6/6/13

Field Representative: AM

Well ID: MW-10 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

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

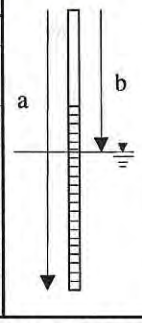
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 17.18 (ft)
Initial Depth to Water (b): 7.65 (ft)
Pump In-take Depth = b + (a-b)/2: 12.41 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.19 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0810	0.0	18.98	6.93	1.75	2.31	-87	164	
0812	0.5	19.68	6.84	1.74	1.68	-121	205	
0814	1.0	19.92	6.86	1.74	1.52	-134	199	
0816	1.5	20.16	6.87	1.73	1.40	-144	184	
0818	2.0	20.32	6.89	1.73	1.34	-151	164	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 7.66 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-10 Sample Collection Time: 0820 (24:00)
Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

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

Signature: ___

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/6/13

Field Representative: AM

Well ID: MW-11 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell

X Disp. Tubing ___ 12V Pump X 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): 16.93 (ft)

Initial Depth to Water (b): 10.03 (ft)

Pump In-take Depth = b + (a-b)/2: 13.48 (ft)

Maximum Allowable Drawdown = (a-b)/8: 0.86 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0740	0.0	17.39	8.09	0.327	2.33	65	302	
0742	0.5	17.96	7.48	0.321	1.98	58	289	
0744	1.0	18.20	7.31	0.319	1.83	46	277	
0746	1.5	18.43	7.20	0.321	1.70	32	256	
0748	2.0	18.60	7.16	0.322	1.62	14	240	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes ___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 10.04 (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing

X Disp. Pump Tubing Other:

Sample ID: MW-11 Sample Collection Time: 0750 (24:00)

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

___ Other: ___ Other:

___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

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

Signature: [signature]

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Kristene Tidwell	Site Contact: Alex Martinez	Date:	COC No:
Broadbent & Associates, Inc.	Tel/Fax: 707-455-7290 / 707-455-7295	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
875 Cotting Lane, Suite G	Analysis Turnaround Time			Job No.
Vacaville, CA 95688	Calendar (C) or Work Days (W) _____			
Phone: 707-455-7290	TAT if different from Below _____			SDG No.
Fax: 707-455-7295	☑ 2 weeks			
Project Name: Arcadis ~~4044~~ 11126	☐ 1 week			
~~614 Cutting Blvd., Richmond, CA~~ 1700 Powell St. Emeryville, CA	☐ 2 days			
P O # GP09BPNA.C~~100~~ 004	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	GBOE	GBE	GE	DRO	MTBE	Sample Specific Notes:
MW-1	6/6/2013	1307	GRAB	AQ	3			X				
MW-2	6/6/2013	1415	GRAB	AQ	3		X					
MW-3	6/6/2013	0855	GRAB	AQ	5				X	X		
MW-4	6/6/2013	1145	GRAB	AQ	5				X	X		
MW-5	6/6/2013	1234	GRAB	AQ	3			X				
MW-6	6/6/2013	1030	GRAB	AQ	5				X	X		
MW-7	6/6/2013	1105	GRAB	AQ	3			X				
MW-8	6/6/2013	1352	GRAB	AQ	5				X	X		
MW-9	6/6/2013	1330	GRAB	AQ	3			X				
MW-10	6/6/2013	0820	GRAB	AQ	3						X	
MW-11	6/6/2013	0750	GRAB	AQ	3						X	
TB-11126-06062013			GRAB	AQ	1							
												On Hold

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions: GBOE = GRO by 8015M; BTEX/5 FO + EDB, 1,2-DCA. GBE = GRO by 8015 M; BTEX, TBA, MTBE, TAME. GE = GRO by 8015M; TBA, MTBE, TAME, and fuel oxygenates
fuel oxygenates

1.8°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Alex Martinez	Broadbent	6/6/13 1518		TEST AMERICA	6/6/13 1518
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

547428

STATEWIDE TRAFFIC SAFETY & SIGNS

☐ Arcata ☐ Poway ☐ Anaheim ☐ Long Beach ☐ San Jose ☐ Redding
☐ Nipomo ☐ Sacramento ☐ Fairfield ☐ Fresno ☐ Bakersfield

TRAFFIC CONTROL WORK ORDER REPORT

CONTRACTOR: Broadbent	CONTACT: Alex Martinez	PHONE:	DATE: 6-6-13
LOCATION:		CONTRACT#	JOB #

Work Description: 09-28-662

TCP

DATE 6-6-13

CUSTOMER Broadbent CITY Emeryville

CLOSURE LOCATION/STREET 1100 Powell St

JOBSITE CONTACT Alex

FWY	ST	HWY/STREET LANE CLOSURES	Length/ Qty	TCSC Work Window Start Time	TCSC Work Window End Time	TCSC Work Window Total Hours	Contractor Work Window Start Time	Contractor Work Window End Time	Contractor Work Window Total Hours	Notes
☐	☒	1 Lane 1 Direction (T-10)		12pm	1pm					3 RWA
☐	☐	2 Lanes 1 Direction (T-10)								2 RLCA
☐	☐	3 Lanes 1 Direction (T-10)								1 LC
☐	☐	Additional 1 Lane Different Location (T-10)								6 scopes
☐	☐	Additional 2 Lanes Different Location (T-10)								12 Flags
☐	☐	Additional 3 Lanes Different Location (T-10)								20 cones
☐	☐	Connector Closure Only (T-14 Mod)								
☐	☐	Off-Ramp Closure during Lane/Street Closure (T-14 Mod)								
☐	☐	On-Ramp Closure during Lane/Street Closure (T-14)								
☐	☐	Connector Closure during Lane Closure (T-14 Mod)								
☐	☐	Complete Freeway/Street Closure (T-14A)								
☐	☐	Flagging (T-13)								
☐	☐	Movin Lane Closure (T-15, T-16)								
☐	☐									
☐	☐									

	QTY	Asset #	Start Time	End Time	Total Hours	Notes
Impact Attenuator Vehicle TL-3 & Driver						
Pilot Car Truck	1	1018	12pm	1pm		
Additional Man						
Additional Lanes						
Portable Changeable Message Sign						
Portable Light Towers						
Arrow Boards						

EMPLOYEE	Reg Hrs	OT	DT
Jason Kehe	4		

Foreman

Contractor

R/E Inspector

White - dispatch / Pink - billing / Blue - other / Canary - customer

SSS TC WO 8/2010

BROADBENT

DAILY REPORT

Page 1 of 1

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

Field Representative(s): Alex Martinez Day: Friday Date: 6/14/13

Time Onsite: From: 0815 To: 0915; From: _____ To: _____; From: _____ To: _____

x Signed HASP x Safety Glasses x Hard Hat x Steel Toe Boots x Safety Vest

x UST Emergency System Shut-off Switches Located x Proper Gloves

x Proper Level of Barricading ___ Other PPE (describe) _____

Weather: Sunny

Equipment In Use: Peristaltic pump, interface probe, U53 meter.

Visitors: None

TIME:	WORK DESCRIPTION:
0815	Arrived onsite to collect water from well MW-7 for DRO analysis.
0820	Set up @ well.
0915	Completed sampling & offsite.

Signature: Alex Martinez

Revision: 1/24/2012

BROADBENT

GROUNDWATER MONITORING SITE SHEET

Project: Arcadis 111236 Project No.: 09-88-662 Date: 6/14/13

Field 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					NOTES
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-7					0828	-	-	5.39	13.49	

* 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: _____

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/14/13

Field Representative: AM

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

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

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

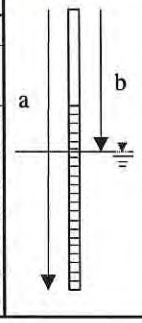
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 13.49 (ft)
Initial Depth to Water (b): 5.39 (ft)
Pump In-take Depth = b + (a-b)/2: 9.44 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.01 (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 Vol. gal or (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0839	0.0	26.93	7.57	3.73	1.51	84	133	
0841	0.5	26.84	7.42	2.80	1.38	-2	135	
0843	1.0	26.77	7.30	2.40	1.28	-76	136	
0845	1.5	26.70	7.22	2.14	1.23	-106	136	
0847	2.0	26.66	7.17	2.05	1.20	-122	137	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-7 Sample Collection Time: 0850 (24:00)
Containers (#): ___ VOA (___ preserved or ___ unpreserved) ___ Liter Amber
2 Other: 1 Liter NP Ambers ___ Other: _____
___ Other: _____ ___ Other: _____

GEOCHEMICAL PARAMETERS

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

Signature: _____

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Kristene Tidwell	Site Contact: Alex Martinez	Date:	COC No:
Broadbent & Associates, Inc.	Tel/Fax: 707-455-7290 / 707-455-7295	Lab Contact: Dimple Sharma	Carrier:	____ of ____ COCs
875 Cotting Lane, Suite G	Analysis Turnaround Time			Job No.
Vacaville, CA 95688	Calendar (C) or Work Days (W) _____			
Phone: 707-455-7290	TAT if different from Below _____			
Fax: 707-455-7295	☐ 2 weeks			SDG No.
Project Name: Arcadis 11126	☐ 1 week			
1700 Powell Street, Emeryville, CA	☐ 2 days			
P O # GP09BPNA.C044	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	DRO 8015M (W/SGC)	DRO 8015M (without SGC)	Sample Specific Notes:
MW-7	6/14/2013	0850	GRAB	AQ	2		X	X	
TB-11126-06142013	--	--	--	AQ	1				On Hold

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions: SGC - Silica Gel Cleanup

1.8°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Alex Martinez	Broadbent	6/14/13 0953		TestAmerica	6-14-13 953
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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: 720-50175-1
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:
6/18/2013 12:58:39 PM

Dimple Sharma, Project Manager I
dimple.sharma@testamericainc.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
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)

Job ID: 720-50175-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-50175-1

Comments
No additional comments.

Receipt
The samples were received on 6/6/2013 3:18 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 1.8º 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: 720-50175-1

Client Sample ID: MW-1 — Lab Sample ID: 720-50175-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	6.9		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Benzene	11		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	14		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	6.7		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	9.8		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	240		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	170		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 720-50175-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	2000		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Benzene	6100		100		ug/L	200		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	670		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Toluene	86		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	1200		20		ug/L	20		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	20000		10000		ug/L	200		8260B/CA_LUFT MS	Total/NA
TBA	2600		80		ug/L	20		8260B/CA_LUFT MS	Total/NA
TAME	96		10		ug/L	20		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 720-50175-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	1.9		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	540		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	300		53		ug/L	1		8015B	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 720-50175-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	6.7		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
TBA	26000		40		ug/L	10		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	600		50		ug/L	1		8015B	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 720-50175-5

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-5 (Continued) — Lab Sample ID: 720-50175-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.7		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Benzene	2.1		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	0.67		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	3.2		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	3800		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	41		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-6 — Lab Sample ID: 720-50175-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	3.8		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	160		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	150		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	3900		50		ug/L	1		8015B	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 720-50175-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.8		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	1600		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-8 — Lab Sample ID: 720-50175-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	0.50		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	200		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	5.7		4.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	830		49		ug/L	1		8015B	Total/NA

Client Sample ID: MW-9 — Lab Sample ID: 720-50175-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	680		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Benzene	480		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	8.9		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Toluene	14		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-9 (Continued) — Lab Sample ID: 720-50175-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	15		5.0		ug/L	5		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C6-C12	3400		250		ug/L	5		8260B/CA_LUFT MS	Total/NA
TBA	2200		20		ug/L	5		8260B/CA_LUFT MS	Total/NA
TAME	33		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-10 — Lab Sample ID: 720-50175-10

No Detections.

Client Sample ID: MW-11 — Lab Sample ID: 720-50175-11

No Detections.

This Detection Summary does not include radiochemical test results.

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-1
Date Collected: 06/06/13 13:04
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	6.9		0.50		ug/L			06/11/13 18:14	1
Benzene	11		0.50		ug/L			06/11/13 18:14	1
Ethylbenzene	14		0.50		ug/L			06/11/13 18:14	1
Toluene	6.7		0.50		ug/L			06/11/13 18:14	1
Xylenes, Total	9.8		1.0		ug/L			06/11/13 18:14	1
Gasoline Range Organics (GRO) -C6-C12	240		50		ug/L			06/11/13 18:14	1
TBA	170		4.0		ug/L			06/11/13 18:14	1
TAME	ND		0.50		ug/L			06/11/13 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*67 - 130*		*06/11/13 18:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*122*		*75 - 138*		*06/11/13 18:14*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/11/13 18:14*	*1*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-2
Date Collected: 06/06/13 14:15
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	**2000**		10		ug/L			06/08/13 02:51	20
Benzene	**6100**		100		ug/L			06/11/13 19:37	200
EDB	ND		10		ug/L			06/08/13 02:51	20
1,2-DCA	ND		10		ug/L			06/08/13 02:51	20
Ethylbenzene	**670**		10		ug/L			06/08/13 02:51	20
Toluene	**86**		10		ug/L			06/08/13 02:51	20
Xylenes, Total	**1200**		20		ug/L			06/08/13 02:51	20
Gasoline Range Organics (GRO) -C6-C12	**20000**		10000		ug/L			06/11/13 19:37	200
TBA	**2600**		80		ug/L			06/08/13 02:51	20
DIPE	ND		10		ug/L			06/08/13 02:51	20
TAME	**96**		10		ug/L			06/08/13 02:51	20
Ethyl t-butyl ether	ND		10		ug/L			06/08/13 02:51	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*67 - 130*		*06/08/13 02:51*	*20*
4-Bromofluorobenzene	*106*		*67 - 130*		*06/11/13 19:37*	*200*
1,2-Dichloroethane-d4 (Surr)	*128*		*75 - 138*		*06/08/13 02:51*	*20*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 138*		*06/11/13 19:37*	*200*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/08/13 02:51*	*20*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/11/13 19:37*	*200*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-3
Date Collected: 06/06/13 08:55
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	**1.9**		0.50		ug/L			06/08/13 18:52	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			06/08/13 18:52	1
TBA	**540**		4.0		ug/L			06/08/13 18:52	1
TAME	ND		0.50		ug/L			06/08/13 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*67 - 130*		*06/08/13 18:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*126*		*75 - 138*		*06/08/13 18:52*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/08/13 18:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**300**		53		ug/L		06/11/13 08:30	06/11/13 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*62*		*23 - 156*	*06/11/13 08:30*	*06/11/13 19:03*	*1*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-4
Date Collected: 06/06/13 11:45
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	**6.7**		5.0		ug/L			06/08/13 19:20	10
Gasoline Range Organics (GRO) -C6-C12	ND		500		ug/L			06/08/13 19:20	10
TBA	**26000**		40		ug/L			06/08/13 19:20	10
TAME	ND		5.0		ug/L			06/08/13 19:20	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*67 - 130*		*06/08/13 19:20*	*10*
1,2-Dichloroethane-d4 (Surr)	*126*		*75 - 138*		*06/08/13 19:20*	*10*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/08/13 19:20*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**600**		50		ug/L		06/11/13 08:30	06/11/13 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*59*		*23 - 156*	*06/11/13 08:30*	*06/11/13 19:33*	*1*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-5
Date Collected: 06/06/13 12:34
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	**3.7**		0.50		ug/L			06/08/13 19:48	1
Benzene	**2.1**		0.50		ug/L			06/08/13 19:48	1
Ethylbenzene	ND		0.50		ug/L			06/08/13 19:48	1
Toluene	**0.67**		0.50		ug/L			06/08/13 19:48	1
Xylenes, Total	**3.2**		1.0		ug/L			06/08/13 19:48	1
Gasoline Range Organics (GRO) -C6-C12	**3800**		50		ug/L			06/08/13 19:48	1
TBA	**41**		4.0		ug/L			06/08/13 19:48	1
TAME	ND		0.50		ug/L			06/08/13 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*67 - 130*		*06/08/13 19:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*130*		*75 - 138*		*06/08/13 19:48*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/08/13 19:48*	*1*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-6
Date Collected: 06/06/13 10:30
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	3.8		0.50		ug/L			06/08/13 20:16	1
Gasoline Range Organics (GRO) -C6-C12	160		50		ug/L			06/08/13 20:16	1
TBA	150		4.0		ug/L			06/08/13 20:16	1
TAME	ND		0.50		ug/L			06/08/13 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*67 - 130*		*06/08/13 20:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 138*		*06/08/13 20:16*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/08/13 20:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3900		50		ug/L		06/11/13 08:30	06/11/13 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*40*		*23 - 156*	*06/11/13 08:30*	*06/11/13 16:37*	*1*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-7
Date Collected: 06/06/13 11:05
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	**2.8**		0.50		ug/L			06/08/13 20:44	1
Benzene	ND		0.50		ug/L			06/08/13 20:44	1
Ethylbenzene	ND		0.50		ug/L			06/08/13 20:44	1
Toluene	ND		0.50		ug/L			06/08/13 20:44	1
Xylenes, Total	ND		1.0		ug/L			06/08/13 20:44	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			06/08/13 20:44	1
TBA	**1600**		4.0		ug/L			06/08/13 20:44	1
TAME	ND		0.50		ug/L			06/08/13 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*67 - 130*		*06/08/13 20:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*125*		*75 - 138*		*06/08/13 20:44*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*06/08/13 20:44*	*1*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-8
Date Collected: 06/06/13 13:52
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	0.50		0.50		ug/L			06/08/13 20:07	1
Gasoline Range Organics (GRO) -C6-C12	200		50		ug/L			06/08/13 20:07	1
TBA	5.7		4.0		ug/L			06/08/13 20:07	1
TAME	ND		0.50		ug/L			06/08/13 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*67 - 130*		*06/08/13 20:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*86*		*75 - 138*		*06/08/13 20:07*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*06/08/13 20:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	830		49		ug/L		06/11/13 08:30	06/12/13 01:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*71*		*23 - 156*	*06/11/13 08:30*	*06/12/13 01:44*	*1*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-9
Date Collected: 06/06/13 13:30
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	680		2.5		ug/L			06/08/13 21:12	5
Benzene	480		2.5		ug/L			06/08/13 21:12	5
Ethylbenzene	8.9		2.5		ug/L			06/08/13 21:12	5
Toluene	14		2.5		ug/L			06/08/13 21:12	5
Xylenes, Total	15		5.0		ug/L			06/08/13 21:12	5
Gasoline Range Organics (GRO) -C6-C12	3400		250		ug/L			06/08/13 21:12	5
TBA	2200		20		ug/L			06/08/13 21:12	5
TAME	33		2.5		ug/L			06/08/13 21:12	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*67 - 130*		*06/08/13 21:12*	*5*
1,2-Dichloroethane-d4 (Surr)	*126*		*75 - 138*		*06/08/13 21:12*	*5*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/08/13 21:12*	*5*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-10
Date Collected: 06/06/13 08:20
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			06/08/13 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*67 - 130*		*06/08/13 20:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*85*		*75 - 138*		*06/08/13 20:34*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*06/08/13 20:34*	*1*

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

TestAmerica Job ID: 720-50175-1

Client Sample ID: MW-11
Date Collected: 06/06/13 07:50
Date Received: 06/06/13 15:18

Lab Sample ID: 720-50175-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			06/08/13 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*67 - 130*		*06/08/13 21:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*86*		*75 - 138*		*06/08/13 21:00*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*06/08/13 21:00*	*1*

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

Lab Sample ID: MB 720-137911/4
Matrix: Water
Analysis Batch: 137911

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		0.50		ug/L			06/07/13 16:05	1
Benzene	ND		0.50		ug/L			06/07/13 16:05	1
EDB	ND		0.50		ug/L			06/07/13 16:05	1
1,2-DCA	ND		0.50		ug/L			06/07/13 16:05	1
Ethylbenzene	ND		0.50		ug/L			06/07/13 16:05	1
Toluene	ND		0.50		ug/L			06/07/13 16:05	1
Xylenes, Total	ND		1.0		ug/L			06/07/13 16:05	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			06/07/13 16:05	1
DIPE	ND		0.50		ug/L			06/07/13 16:05	1
Ethyl t-butyl ether	ND		0.50		ug/L			06/07/13 16:05	1
TBA	ND		4.0		ug/L			06/07/13 16:05	1
TAME	ND		0.50		ug/L			06/07/13 16:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*67 - 130*		*06/07/13 16:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*127*		*75 - 138*		*06/07/13 16:05*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/07/13 16:05*	*1*

Lab Sample ID: LCS 720-137911/5
Matrix: Water
Analysis Batch: 137911

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
MTBE	25.0	24.3		ug/L		97	62 - 130
Benzene	25.0	21.4		ug/L		85	79 - 130
EDB	25.0	27.2		ug/L		109	70 - 130
1,2-DCA	25.0	28.0		ug/L		112	61 - 132
Ethylbenzene	25.0	23.2		ug/L		93	80 - 120
Toluene	25.0	21.7		ug/L		87	78 - 120
DIPE	25.0	20.6		ug/L		83	69 - 134
Ethyl t-butyl ether	25.0	24.4		ug/L		98	70 - 130
TBA	500	463		ug/L		93	70 - 130
TAME	25.0	24.9		ug/L		100	79 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*119*		*75 - 138*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCS 720-137911/7
Matrix: Water
Analysis Batch: 137911

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C12	500	474		ug/L		95	58 - 120

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

Lab Sample ID: LCS 720-137911/7
Matrix: Water
Analysis Batch: 137911

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	108		67 - 130
1,2-Dichloroethane-d4 (Surr)	126		75 - 138
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 720-137911/6
Matrix: Water
Analysis Batch: 137911

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MTBE			25.0	24.6		ug/L		98	62 - 130	1	20
Benzene			25.0	21.1		ug/L		84	79 - 130	1	20
EDB			25.0	26.8		ug/L		107	70 - 130	2	20
1,2-DCA			25.0	27.6		ug/L		111	61 - 132	1	20
Ethylbenzene			25.0	22.6		ug/L		91	80 - 120	3	20
Toluene			25.0	21.5		ug/L		86	78 - 120	1	20
DIPE			25.0	20.6		ug/L		83	69 - 134	0	20
Ethyl t-butyl ether			25.0	24.8		ug/L		99	70 - 130	1	20
TBA			500	453		ug/L		91	70 - 130	2	20
TAME			25.0	25.0		ug/L		100	79 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	119		75 - 138
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 720-137911/8
Matrix: Water
Analysis Batch: 137911

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C12			500	482		ug/L		96	58 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	108		67 - 130
1,2-Dichloroethane-d4 (Surr)	126		75 - 138
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: MB 720-137970/4
Matrix: Water
Analysis Batch: 137970

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			06/08/13 10:49	1
MTBE	ND		0.50		ug/L			06/08/13 10:49	1
Benzene	ND		0.50		ug/L			06/08/13 10:49	1
Ethylbenzene	ND		0.50		ug/L			06/08/13 10:49	1
Toluene	ND		0.50		ug/L			06/08/13 10:49	1

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

Lab Sample ID: MB 720-137970/4
Matrix: Water
Analysis Batch: 137970

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		1.0		ug/L			06/08/13 10:49	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			06/08/13 10:49	1
TBA	ND		4.0		ug/L			06/08/13 10:49	1
TAME	ND		0.50		ug/L			06/08/13 10:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*67 - 130*		*06/08/13 10:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 138*		*06/08/13 10:49*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/08/13 10:49*	*1*

Lab Sample ID: LCS 720-137970/5
Matrix: Water
Analysis Batch: 137970

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	25.8		ug/L		103	62 - 130
MTBE	25.0	25.8		ug/L		103	62 - 130
Benzene	25.0	23.6		ug/L		95	79 - 130
Ethylbenzene	25.0	24.8		ug/L		99	80 - 120
Toluene	25.0	23.4		ug/L		94	78 - 120
TBA	500	496		ug/L		99	70 - 130
TAME	25.0	26.1		ug/L		105	79 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 138*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCS 720-137970/7
Matrix: Water
Analysis Batch: 137970

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C12	500	477		ug/L		95	58 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*124*		*75 - 138*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 720-137970/6
Matrix: Water
Analysis Batch: 137970

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	26.5		ug/L		106	62 - 130	3	20

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

Lab Sample ID: LCSD 720-137970/6
Matrix: Water
Analysis Batch: 137970

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MTBE			25.0	26.5		ug/L		106	62 - 130	3	20
Benzene			25.0	23.4		ug/L		93	79 - 130	1	20
Ethylbenzene			25.0	25.1		ug/L		101	80 - 120	1	20
Toluene			25.0	23.5		ug/L		94	78 - 120	1	20
TBA			500	486		ug/L		97	70 - 130	2	20
TAME			25.0	26.3		ug/L		105	79 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 138*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 720-137970/8
Matrix: Water
Analysis Batch: 137970

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C12			500	478		ug/L		96	58 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 138*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 720-137971/4
Matrix: Water
Analysis Batch: 137971

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			06/08/13 10:51	1
MTBE	ND		0.50		ug/L			06/08/13 10:51	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			06/08/13 10:51	1
TBA	ND		4.0		ug/L			06/08/13 10:51	1
TAME	ND		0.50		ug/L			06/08/13 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*67 - 130*		*06/08/13 10:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*84*		*75 - 138*		*06/08/13 10:51*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*06/08/13 10:51*	*1*

Lab Sample ID: LCS 720-137971/5
Matrix: Water
Analysis Batch: 137971

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methyl tert-butyl ether			25.0	22.5		ug/L		90	62 - 130		

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

Lab Sample ID: LCS 720-137971/5
Matrix: Water
Analysis Batch: 137971

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
MTBE			25.0	22.5		ug/L		90	62 - 130		
TBA			500	502		ug/L		100	70 - 130		
TAME			25.0	24.3		ug/L		97	79 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*76*		*75 - 138*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCS 720-137971/7
Matrix: Water
Analysis Batch: 137971

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C6-C12			500	447		ug/L		89	58 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*80*		*75 - 138*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 720-137971/6
Matrix: Water
Analysis Batch: 137971

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether			25.0	23.1		ug/L		92	62 - 130	2	20
MTBE			25.0	23.1		ug/L		92	62 - 130	2	20
TBA			500	498		ug/L		100	70 - 130	1	20
TAME			25.0	25.0		ug/L		100	79 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*78*		*75 - 138*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 720-137971/8
Matrix: Water
Analysis Batch: 137971

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C12			500	429		ug/L		86	58 - 120	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*67 - 130*

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

Lab Sample ID: LCSD 720-137971/8
Matrix: Water
Analysis Batch: 137971

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*80*		*75 - 138*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 720-138124/4
Matrix: Water
Analysis Batch: 138124

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			06/11/13 15:27	1
MTBE	ND		0.50		ug/L			06/11/13 15:27	1
Benzene	ND		0.50		ug/L			06/11/13 15:27	1
EDB	ND		0.50		ug/L			06/11/13 15:27	1
1,2-DCA	ND		0.50		ug/L			06/11/13 15:27	1
Ethylbenzene	ND		0.50		ug/L			06/11/13 15:27	1
Toluene	ND		0.50		ug/L			06/11/13 15:27	1
Xylenes, Total	ND		1.0		ug/L			06/11/13 15:27	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			06/11/13 15:27	1
DIPE	ND		0.50		ug/L			06/11/13 15:27	1
Ethyl t-butyl ether	ND		0.50		ug/L			06/11/13 15:27	1
TBA	ND		4.0		ug/L			06/11/13 15:27	1
TAME	ND		0.50		ug/L			06/11/13 15:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	*108*		*67 - 130*		*06/11/13 15:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*121*		*75 - 138*		*06/11/13 15:27*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/11/13 15:27*	*1*

Lab Sample ID: LCS 720-138124/5
Matrix: Water
Analysis Batch: 138124

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	27.1		ug/L		108	62 - 130
MTBE	25.0	27.1		ug/L		108	62 - 130
Benzene	25.0	23.4		ug/L		94	79 - 130
EDB	25.0	31.2		ug/L		125	70 - 130
1,2-DCA	25.0	30.8		ug/L		123	61 - 132
Ethylbenzene	25.0	24.6		ug/L		98	80 - 120
Toluene	25.0	23.2		ug/L		93	78 - 120
DIPE	25.0	22.2		ug/L		89	69 - 134
Ethyl t-butyl ether	25.0	26.3		ug/L		105	70 - 130
TBA	500	484		ug/L		97	70 - 130
TAME	25.0	27.0		ug/L		108	79 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	*105*		*67 - 130*

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

Lab Sample ID: LCS 720-138124/5
Matrix: Water
Analysis Batch: 138124

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 138*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCS 720-138124/7
Matrix: Water
Analysis Batch: 138124

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C12	500	490		ug/L		98	58 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	*105*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*122*		*75 - 138*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 720-138124/6
Matrix: Water
Analysis Batch: 138124

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	25.7		ug/L		103	62 - 130	5	20
MTBE	25.0	25.7		ug/L		103	62 - 130	5	20
Benzene	25.0	23.5		ug/L		94	79 - 130	0	20
EDB	25.0	29.2		ug/L		117	70 - 130	7	20
1,2-DCA	25.0	29.9		ug/L		120	61 - 132	3	20
Ethylbenzene	25.0	25.2		ug/L		101	80 - 120	2	20
Toluene	25.0	23.9		ug/L		96	78 - 120	3	20
DIPE	25.0	22.0		ug/L		88	69 - 134	1	20
Ethyl t-butyl ether	25.0	25.6		ug/L		102	70 - 130	3	20
TBA	500	490		ug/L		98	70 - 130	1	20
TAME	25.0	26.4		ug/L		106	79 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	*105*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*119*		*75 - 138*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 720-138124/8
Matrix: Water
Analysis Batch: 138124

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C12	500	486		ug/L		97	58 - 120	1	20

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

Lab Sample ID: LCSD 720-138124/8
Matrix: Water
Analysis Batch: 138124

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	*107*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*124*		*75 - 138*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: 720-50175-1 MS
Matrix: Water
Analysis Batch: 138124

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	6.9		25.0	34.3		ug/L		110	60 - 138
MTBE	6.9		25.0	34.3		ug/L		110	60 - 138
Benzene	11		25.0	36.8		ug/L		101	60 - 140
EDB	ND		25.0	30.7		ug/L		123	60 - 140
1,2-DCA	ND		25.0	31.7		ug/L		127	60 - 140
Ethylbenzene	14		25.0	39.3		ug/L		102	60 - 140
Toluene	6.7		25.0	31.0		ug/L		97	60 - 140
DIPE	ND		25.0	23.1		ug/L		92	60 - 140
Ethyl t-butyl ether	ND		25.0	27.0		ug/L		108	60 - 140
TBA	170		500	712		ug/L		109	60 - 140
TAME	ND		25.0	27.8		ug/L		110	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	*103*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*122*		*75 - 138*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: 720-50175-1 MSD
Matrix: Water
Analysis Batch: 138124

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	6.9		25.0	33.5		ug/L		106	60 - 138	2	20
MTBE	6.9		25.0	33.5		ug/L		106	60 - 138	2	20
Benzene	11		25.0	35.6		ug/L		97	60 - 140	3	20
EDB	ND		25.0	29.9		ug/L		119	60 - 140	3	20
1,2-DCA	ND		25.0	30.4		ug/L		121	60 - 140	4	20
Ethylbenzene	14		25.0	38.8		ug/L		99	60 - 140	1	20
Toluene	6.7		25.0	30.3		ug/L		95	60 - 140	2	20
DIPE	ND		25.0	22.5		ug/L		90	60 - 140	3	20
Ethyl t-butyl ether	ND		25.0	26.3		ug/L		105	60 - 140	3	20
TBA	170		500	660		ug/L		99	60 - 140	8	20
TAME	ND		25.0	27.2		ug/L		107	60 - 140	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	*107*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 138*
Toluene-d8 (Surr)	*103*		*70 - 130*

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

Lab Sample ID: MB 720-138084/1-A
Matrix: Water
Analysis Batch: 138081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138084

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		06/11/13 08:30	06/12/13 04:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*93*		*23 - 156*	*06/11/13 08:30*	*06/12/13 04:28*	*1*

Lab Sample ID: LCS 720-138084/2-A
Matrix: Water
Analysis Batch: 138081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138084

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			2500	1980		ug/L		79	40 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*116*		*23 - 156*

Lab Sample ID: LCSD 720-138084/3-A
Matrix: Water
Analysis Batch: 138081

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138084

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			2500	1690		ug/L		68	40 - 150	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*110*		*23 - 156*

GC/MS VOA

Analysis Batch: 137911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50175-2	MW-2	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-137911/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-137911/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-137911/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-137911/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-137911/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 137970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50175-3	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-4	MW-4	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-5	MW-5	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-6	MW-6	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-7	MW-7	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-9	MW-9	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-137970/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-137970/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-137970/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-137970/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-137970/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 137971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50175-8	MW-8	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-10	MW-10	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-11	MW-11	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-137971/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-137971/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-137971/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-137971/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-137971/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

GC/MS VOA (Continued)

Analysis Batch: 138124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50175-1	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-1 MS	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-1 MSD	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
720-50175-2	MW-2	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-138124/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-138124/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-138124/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-138124/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-138124/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

GC Semi VOA

Analysis Batch: 138081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50175-3	MW-3	Total/NA	Water	8015B	138084
720-50175-4	MW-4	Total/NA	Water	8015B	138084
LCS 720-138084/2-A	Lab Control Sample	Total/NA	Water	8015B	138084
LCSD 720-138084/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	138084
MB 720-138084/1-A	Method Blank	Total/NA	Water	8015B	138084

Analysis Batch: 138083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50175-6	MW-6	Total/NA	Water	8015B	138084

Prep Batch: 138084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50175-3	MW-3	Total/NA	Water	3510C	
720-50175-4	MW-4	Total/NA	Water	3510C	
720-50175-6	MW-6	Total/NA	Water	3510C	
720-50175-8	MW-8	Total/NA	Water	3510C	
LCS 720-138084/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-138084/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 720-138084/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 138109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50175-8	MW-8	Total/NA	Water	8015B	138084

Client Sample ID: MW-1

Lab Sample ID: 720-50175-1

Date Collected: 06/06/13 13:04

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	138124	06/11/13 18:14	PD	TAL PLS

Client Sample ID: MW-2

Lab Sample ID: 720-50175-2

Date Collected: 06/06/13 14:15

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		20	137911	06/08/13 02:51	LL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		200	138124	06/11/13 19:37	PD	TAL PLS

Client Sample ID: MW-3

Lab Sample ID: 720-50175-3

Date Collected: 06/06/13 08:55

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	137970	06/08/13 18:52	PD	TAL PLS
Total/NA	Prep	3510C			138084	06/11/13 08:30	MP	TAL PLS
Total/NA	Analysis	8015B		1	138081	06/11/13 19:03	DH	TAL PLS

Client Sample ID: MW-4

Lab Sample ID: 720-50175-4

Date Collected: 06/06/13 11:45

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	137970	06/08/13 19:20	PD	TAL PLS
Total/NA	Prep	3510C			138084	06/11/13 08:30	MP	TAL PLS
Total/NA	Analysis	8015B		1	138081	06/11/13 19:33	DH	TAL PLS

Client Sample ID: MW-5

Lab Sample ID: 720-50175-5

Date Collected: 06/06/13 12:34

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	137970	06/08/13 19:48	PD	TAL PLS

Client Sample ID: MW-6

Lab Sample ID: 720-50175-6

Date Collected: 06/06/13 10:30

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	137970	06/08/13 20:16	PD	TAL PLS
Total/NA	Prep	3510C			138084	06/11/13 08:30	MP	TAL PLS

Client Sample ID: MW-6

Lab Sample ID: 720-50175-6

Date Collected: 06/06/13 10:30

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	138083	06/11/13 16:37	DH	TAL PLS

Client Sample ID: MW-7

Lab Sample ID: 720-50175-7

Date Collected: 06/06/13 11:05

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	137970	06/08/13 20:44	PD	TAL PLS

Client Sample ID: MW-8

Lab Sample ID: 720-50175-8

Date Collected: 06/06/13 13:52

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	137971	06/08/13 20:07	AC	TAL PLS
Total/NA	Prep	3510C			138084	06/11/13 08:30	MP	TAL PLS
Total/NA	Analysis	8015B		1	138109	06/12/13 01:44	DH	TAL PLS

Client Sample ID: MW-9

Lab Sample ID: 720-50175-9

Date Collected: 06/06/13 13:30

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		5	137970	06/08/13 21:12	PD	TAL PLS

Client Sample ID: MW-10

Lab Sample ID: 720-50175-10

Date Collected: 06/06/13 08:20

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	137971	06/08/13 20:34	AC	TAL PLS

Client Sample ID: MW-11

Lab Sample ID: 720-50175-11

Date Collected: 06/06/13 07:50

Matrix: Water

Date Received: 06/06/13 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	137971	06/08/13 21:00	AC	TAL PLS

Laboratory References:

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

Certification Summary

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

TestAmerica Job ID: 720-50175-1

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

Method Summary

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

TestAmerica Job ID: 720-50175-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

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

TestAmerica Job ID: 720-50175-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-50175-1	MW-1	Water	06/06/13 13:04	06/06/13 15:18
720-50175-2	MW-2	Water	06/06/13 14:15	06/06/13 15:18
720-50175-3	MW-3	Water	06/06/13 08:55	06/06/13 15:18
720-50175-4	MW-4	Water	06/06/13 11:45	06/06/13 15:18
720-50175-5	MW-5	Water	06/06/13 12:34	06/06/13 15:18
720-50175-6	MW-6	Water	06/06/13 10:30	06/06/13 15:18
720-50175-7	MW-7	Water	06/06/13 11:05	06/06/13 15:18
720-50175-8	MW-8	Water	06/06/13 13:52	06/06/13 15:18
720-50175-9	MW-9	Water	06/06/13 13:30	06/06/13 15:18
720-50175-10	MW-10	Water	06/06/13 08:20	06/06/13 15:18
720-50175-11	MW-11	Water	06/06/13 07:50	06/06/13 15:18

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 720-50175-1

Login Number: 50175

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

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	

TestAmerica

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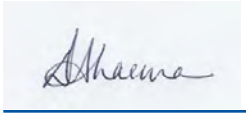
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-50325-1
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:
6/24/2013 1:55:10 PM

Dimple Sharma, Project Manager I
dimple.sharma@testamericainc.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
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)

Job ID: 720-50325-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-50325-1

Comments
No additional comments.

Receipt
The samples were received on 6/14/2013 9:53 AM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 1.8º C.

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: 720-50325-1

Client Sample ID: MW-7 **Lab Sample ID: 720-50325-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	570		47		ug/L	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

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

TestAmerica Job ID: 720-50325-1

Client Sample ID: MW-7
Date Collected: 06/14/13 08:50
Date Received: 06/14/13 09:53

Lab Sample ID: 720-50325-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	570		47		ug/L		06/18/13 08:38	06/18/13 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*69*		*23 - 156*	*06/18/13 08:38*	*06/18/13 23:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47		ug/L		06/18/13 08:38	06/20/13 13:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.08*		*0 - 5*	*06/18/13 08:38*	*06/20/13 13:01*	*1*
p-Terphenyl	*79*		*31 - 150*	*06/18/13 08:38*	*06/20/13 13:01*	*1*

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

Lab Sample ID: MB 720-138493/1-A
Matrix: Water
Analysis Batch: 138459

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138493

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		06/18/13 08:38	06/19/13 00:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*100*		*23 - 156*	*06/18/13 08:38*	*06/19/13 00:28*	*1*

Lab Sample ID: LCS 720-138493/2-A
Matrix: Water
Analysis Batch: 138459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138493

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1810		ug/L		72	40 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*112*		*23 - 156*

Lab Sample ID: LCSD 720-138493/3-A
Matrix: Water
Analysis Batch: 138459

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138493

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	1790		ug/L		72	40 - 150	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*116*		*23 - 156*

Lab Sample ID: MB 720-138607/1-A
Matrix: Water
Analysis Batch: 138657

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 138607

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		06/18/13 08:38	06/20/13 14:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.01*		*0 - 5*	*06/18/13 08:38*	*06/20/13 14:15*	*1*
p-Terphenyl	*82*		*31 - 150*	*06/18/13 08:38*	*06/20/13 14:15*	*1*

Lab Sample ID: LCS 720-138607/2-A
Matrix: Water
Analysis Batch: 138657

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 138607

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1560		ug/L		62	32 - 119

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

Lab Sample ID: LCS 720-138607/2-A
Matrix: Water
Analysis Batch: 138657

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 138607

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	*81*		*31 - 150*

Lab Sample ID: LCSD 720-138607/3-A
Matrix: Water
Analysis Batch: 138657

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 138607

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			2500	1550		ug/L		62	32 - 119	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	*83*		*31 - 150*

GC Semi VOA

Analysis Batch: 138459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-138493/2-A	Lab Control Sample	Total/NA	Water	8015B	138493
LCSD 720-138493/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	138493
MB 720-138493/1-A	Method Blank	Total/NA	Water	8015B	138493

Analysis Batch: 138484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50325-1	MW-7	Total/NA	Water	8015B	138493

Prep Batch: 138493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50325-1	MW-7	Total/NA	Water	3510C	
LCS 720-138493/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-138493/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 720-138493/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 138607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50325-1	MW-7	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-138607/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-138607/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-138607/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

Analysis Batch: 138657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50325-1	MW-7	Silica Gel Cleanup	Water	8015B	138607
LCS 720-138607/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	138607
LCSD 720-138607/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	138607
MB 720-138607/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	138607

Lab Chronicle

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

TestAmerica Job ID: 720-50325-1

Client Sample ID: MW-7
Date Collected: 06/14/13 08:50
Date Received: 06/14/13 09:53

Lab Sample ID: 720-50325-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			138493	06/18/13 08:38	MRP	TAL PLS
Total/NA	Analysis	8015B		1	138484	06/18/13 23:27	DCH	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			138607	06/18/13 08:38	DFR	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	138657	06/20/13 13:01	DCH	TAL PLS

Laboratory References:

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

Certification Summary

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

TestAmerica Job ID: 720-50325-1

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

Method Summary

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

TestAmerica Job ID: 720-50325-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS

Protocol References:

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

Laboratory References:

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

Sample Summary

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

TestAmerica Job ID: 720-50325-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-50325-1	MW-7	Water	06/14/13 08:50	06/14/13 09:53

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720-50325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

146598

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Kristene Tidwell	Site Contact: Alex Martinez	Date:	COC No:
Broadbent & Associates, Inc.	Tel/Fax: 707-455-7290 / 707-455-7295	Lab Contact: Dimple Sharma	Carrier:	_____ of _____ COCs
875 Cotting Lane, Suite G	**Analysis Turnaround Time**			Job No.
Vacaville, CA 95688	Calendar (C) or Work Days (W) _____			
Phone: 707-455-7290	TAT if different from Below _____			SDG No.
Fax: 707-455-7295	☒ 2 weeks			
Project Name: Arcadis 11126	☐ 1 week			
1700 Powell Street, Emeryville, CA	☐ 2 days			
P O # GP09BPNA.C044	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	DRO 8015M (W/SGC)	DRO 8015M (without SGC)	Sample Specific Notes:
MW-7	6/14/2013	0850	GRAB	AQ	2		X	X	
TB-11126-06142013	--	--	--	AQ	1				On Hold

720-50325 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions: SGC - Silica Gel Cleanup

1.8°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Alex Martinez	Broadbent	6/14/13 0953		TestAmerica	6-14-13 953
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: 720-50325-1

Login Number: 50325

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

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:	**First Quarter and Second Quarter 2013 Semi-Annual Groundwater Monitoring Report 071813**
Report Type:	**Monitoring Report - Semi-Annually**
Report Date:	**7/18/2013**
Facility Global ID:	**T0600100208**
Facility Name:	**BP #11126**
File Name:	**CA-11126 071813 BP - 2Q13 GWMR.pdf**
Organization Name:	**ARCADIS**
Username:	**ARCADISBP**
IP Address:	**216.207.98.101**
Submittal Date/Time:	**7/18/2013 11:56:35 AM**
Confirmation Number:	**9377552092**