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Mr. Mark E. Detterman, PG, CEG
Alameda County Environmental Health
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Alameda, California 94502

ARCADIS U.S., Inc.
100 Montgomery Street
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San Francisco
California 94104
Tel 415 374 2744
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Subject:

ENVIRONMENT

First and Second Quarter 2014
Semi-Annual Groundwater Monitoring Report
Former BP Station #11126,
1700 Powell Street, Emeryville, California
Regulatory Site No: RO0000066

Date:
August 6, 2014

Dear Mr. Detterman:

ARCADIS U.S., Inc. (ARCADIS) has prepared this First and Second Quarter 2014 Semi-Annual Groundwater Monitoring Report on behalf of Atlantic Richfield Company (ARCO), a BP affiliated company, for the former ARCO service station listed below.

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

Contact:
Hollis Phillips

Phone:
415.432.6903

Email:
hollis.phillips@arcadis-us.com

Our ref:
GP09BPNA.C044.N0000

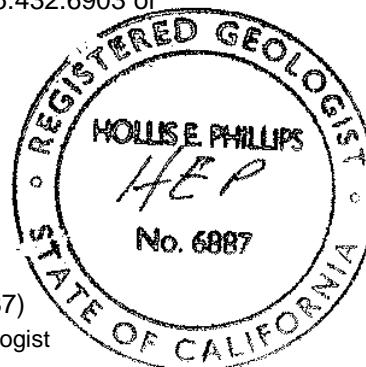
I declare, to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct. If you have any questions or comments regarding the content of this report, please contact Jamey Peterson by telephone at 707.889.6739 or by 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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GeoTracker upload

Imagine the result

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Subject:
**First Quarter and Second Quarter 2014 –
Semi-Annual Groundwater Monitoring Report**
Former BP Station No. 11126
1700 Powell Street, Emeryville, California
Regulatory Site No: RO0000066

ENVIRONMENT

Dear Mr. Detterman:

Date:
August 6, 2014

ARCADIS U.S., Inc. (ARCADIS) has prepared this *First Quarter and Second Quarter Semi-Annual Groundwater Monitoring Report* to document the results of groundwater monitoring and sampling performed at the Former BP Station No. 11126 located in Emeryville, Alameda County, California (the Site; Figure 1).

Contact:
Hollis Phillips

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415.432.6903

Email:
hollis.phillips@arcadis-us.com

Our ref:
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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 2014)

- Prepared and submitted the *Third Quarter and Fourth Quarter 2013 Semi-Annual Groundwater Monitoring Report*, dated March 3, 2014.
- Conducted groundwater monitoring/sampling for the Second Quarter 2014 on June 30, 2014.

Work Proposed – Reporting Period (July to December 2014)

- Submit this *First Quarter and Second Quarter 2014 Semi-Annual Groundwater Monitoring Report*, contained herein.
- Prepare and submit a site conceptual model and data gap work plan as directed by the Alameda County Environmental Health (ACEH) in their letter dated June 30, 2014.

- Perform groundwater monitoring and sampling activities during Fourth Quarter 2014.

2. Background

The Site is an active 76-branded gasoline station. A site historical summary is included as Appendix A. Available records 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

Monitoring well construction details are summarized in Table 1. Current and historical groundwater monitoring and analytical data are summarized in Table 2, and Second Quarter 2014 data is graphically presented on Figures 3 and 4. A rose diagram illustrating groundwater flow direction is provided as Figure 5. The groundwater sampling data package and laboratory analytical reports for the Second Quarter 2014 sampling event are included in Appendices B and C, respectively.

Groundwater monitoring associated with the Site is conducted on a semi-annual frequency during the second and fourth quarters of each year. Second Quarter 2014 groundwater monitoring was conducted on June 30, 2014 by Broadbent and Associates, Inc. (BAI) personnel. BAI personnel measured depth to groundwater in MW-1 through MW-11. Depth to groundwater measurements ranged from 3.77 feet (MW-1) to 10.12 feet (MW-11).

Groundwater samples were collected on June 30, 2014 from monitoring 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-11 were sampled for the following analyte:

- Methyl tertiary butyl ether (MTBE) using USEPA Method 8260B.

MW-1 through MW-9 were additionally 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 tertiary butyl alcohol (TBA) and tertiary amyl methyl ether (TAME) using USEPA Method 8260B.

Monitoring wells MW-3 through MW-8 were additionally sampled for the following:

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

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), ethyl tertiary butyl ether (ETBE), 1,2-Dichloroethane (1,2-DCA), and 1,2-Dibromoethane (EDB) using USEPA Method 8260B.

4. Results

- Groundwater flow direction during the recent semi-annual monitoring event was to the southwest at an approximate gradient of 0.025 ft/ft. Historical data indicate the groundwater flow direction is predominately toward the southwest as shown on Figure 5.
- GRO was detected above the laboratory reporting limits in four of the nine groundwater monitoring wells sampled with concentrations ranging from 150 micrograms per liter ($\mu\text{g/L}$) (MW-8) to 2,800 $\mu\text{g/L}$ (MW-5). GRO concentrations were below analytical reporting limits at five monitoring wells sampled during this reporting period (MW-2, MW-3, MW-4, MW-6, and MW-7).
- DRO was detected in four of the six groundwater monitoring wells sampled with concentrations ranging from 130 $\mu\text{g/L}$ (MW-7) to 800 $\mu\text{g/L}$ (MW-4). DRO

concentrations were below analytical reporting limits at two monitoring wells sampled during this reporting period (MW-3 and MW-8).

- Benzene was detected in four of the five groundwater monitoring wells sampled with concentrations ranging from 2.5 µg/L (MW-5) to 1,800 µg/L (MW-2). Benzene concentrations were below analytical reporting limits at one monitoring well sampled during this reporting period (MW-7).
- Toluene was detected in three of five groundwater monitoring wells sampled with concentrations ranging from 0.58 µg/L (MW-1) to 12 µg/L (MW-9). Toluene concentrations were below analytical reporting limits in two monitoring wells sampled during this reporting period (MW-2 and MW-7).
- Ethylbenzene was detected in two of five groundwater monitoring wells sampled with concentrations ranging from 4 µg/L (MW-9) to 140 µg/L (MW-2). Ethylbenzene concentrations were below analytical reporting limits in three monitoring wells sampled during this reporting period (MW-1, MW-5, and MW-7).
- Xylenes were detected in two of five groundwater monitoring wells sampled with concentrations ranging from 3.9 µg/L (MW-5) to 10 µg/L (MW-9). Xylene concentrations were below analytical reporting limits in three monitoring well sampled during this reporting period (MW-1, MW-2, and MW-7).
- MTBE was detected in eight of the eleven groundwater monitoring wells sampled with concentrations ranging from 1.5 µg/L (MW-3) to 700 µg/L (MW-2). MTBE concentrations were below analytical reporting limits in three monitoring wells sampled during this reporting period (MW-8, MW-10, and MW-11).
- TBA was detected in eight of the nine groundwater monitoring wells sampled with concentrations ranging from 57 µg/L (MW-6) to 25,000 µg/L (MW-2). TBA concentrations were below analytical reporting limits in one monitoring well sampled during this period (MW-8).
- TAME was detected in one of nine groundwater monitoring wells sampled at a concentration of 13 µg/L (MW-9). TAME concentrations were below analytical reporting limits in eight monitoring wells sampled during this reporting period (MW-1 through MW-8).
- DIPE, ETBE, 1,2-DCA, and EDB were not detected above analytical reporting limits in the groundwater samples collected from MW-2.

5. Recommendations

Based on the observed groundwater concentrations, ARCADIS recommends continued groundwater monitoring and sampling on a semi-annual basis. Beginning with the next groundwater sampling event, tentatively scheduled for December 2014, DRO, naphthalene, and polycyclic aromatic hydrocarbons (PAHs) will be added to the list of analytes for all groundwater monitoring wells as directed by ACEH in their letter dated June 30, 2014.

If you have any questions or comments regarding the contents of this report, please contact Jamey Peterson by telephone (707.889.6739) 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,

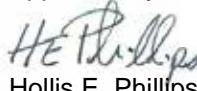
ARCADIS

Prepared by:

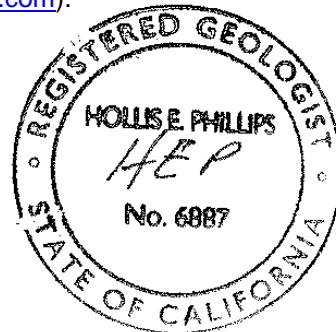


Jamey Peterson
Staff Geologist

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 30, 2014 |
| Figure 4 | Groundwater Hydrocarbon Concentration Map – June 30, 2014 |
| 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 |

Copies: GeoTracker and ACEH FTP site uploads

ARCADIS

TABLES

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

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

Notes:

Wells are of polyvinyl chloride (PVC) construction

bgs = Below ground surface

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-01	11/4/1992		7.76	4.96	--	2.8	--	5,300	1,100	480	<0.5	1,500	--	--	--	--	--	--	--	--	--	
MW-01	10/12/1993		7.76	5.26	--	2.5	--	3,600	970	71	100	550	6,111	--	--	--	--	--	--	--	--	
MW-01	2/15/1994		7.76	4.98	--	2.78	--	17,000	4,200	510	360	1,600	5,495	--	--	--	--	--	--	--	3.90	
MW-01	5/11/1994		7.76	4.55	--	3.21	--	5,500	2,900	37	56	64	705	--	--	--	--	--	--	--	8	
MW-01	8/1/1994	Dup	7.76	5.51	--	2.25	--	16,000	3,600	750	510	2,800	9,800	--	--	--	--	--	--	--	(Dup)	
MW-01	10/18/1994	Dup	7.76	5.11	--	2.65	--	16,000	1,900	64	170	950	--	--	--	--	--	--	--	--	(Dup)	
MW-01	1/13/1995	Dup	7.76	--	--	--	--	590	88	0.7	<0.5	55	--	--	--	--	--	--	--	--	(DUP)	
MW-01	4/13/1995		7.76	3.84	--	3.92	--	9,300	4,000	300	200	950	--	--	--	--	--	--	--	--	7.70	
MW-01	7/11/1995		7.76	3.6	--	4.16	--	15,000	2,200	84	<25	2,500	--	--	--	--	--	--	--	--	8.80	
MW-01	11/2/1995		7.76	4.58	--	3.18	--	19,000	920	<100	<100	430	52,000	--	--	--	--	--	--	--	7.30	
MW-01	2/5/1996		7.76	4.43	--	3.33	--	4,600	1,400	330	54	247	8,700	--	--	--	--	--	--	--	3.20	
MW-01	4/24/1996		7.76	4	--	3.76	--	2,000	510	33	61	228	4,500	--	--	--	--	--	--	--	7.50	
MW-01	7/15/1996		7.76	4.3	--	3.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-01	7/16/1996	Dup	7.76	--	--	--	--	12,000	2,800	160	390	1,610	63,000	--	--	--	--	--	--	--	(Dup)	
MW-01	7/30/1996		7.76	4.64	--	3.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-01	8/12/1996		7.76	--	--	--	--	11,000	2,500	160	<10	1,740	440,000	--	--	--	--	--	--	--	7	
MW-01	11/4/1996		7.76	5.98	--	1.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-01	11/5/1996		7.76	--	--	--	--	53,000	1,300	43	100	349	42,000	--	--	--	--	--	--	--	6.60	
MW-01	5/17/1997		7.76	4.65	--	3.11	--	52,000	1,958	55	305	1,216	140,198	--	--	--	--	--	--	--	5.70	
MW-01	8/11/1997		7.76	4.9	--	2.86	--	25,000	540	6.7	<5.0	57	360,000	--	--	--	--	--	--	--	7.90	
MW-01	11/17/1997		7.76	6.12	--	1.64	--	93,000	1,200	31	180	40	400,000	--	--	--	--	--	--	--	7.60	
MW-01	1/29/1998		7.76	4.9	--	2.86	--	4,800	320	24	52	20	<50	--	--	--	--	--	--	--	6.60	
MW-01	6/22/1998		7.76	4.62	--	3.14	--	63,000	180	<5.0	15	69	57,000	--	--	--	--	--	--	--	6	
MW-01	12/30/1998		7.76	5.41	--	2.35	--	22,000	2,500	24	120	400	15,000	--	--	--	--	--	--	--	--	
MW-01	3/9/1999		7.76	3.4	--	4.36	--	16,000	2,000	84	290	510	13,000	--	--	--	--	--	--	--	--	
MW-01	6/23/1999		7.76	4.6	--	3.16	--	9,600	4,500	21	160	260	24,000	--	--	--	--	--	--	--	--	
MW-01	9/23/1999		7.76	4.21	--	3.55	--	3,800	1,600	32	150	240	7,100	--	--	--	--	--	--	--	--	
MW-01	12/28/1999		7.76	4.1	--	3.66	--	3,400	<2,200	17	53	130	5,500	--	--	--	--	--	--	--	--	
MW-01	3/22/2000		7.76	5.51	--	2.25	--	6,400	1,100	45	190	330	4,900	--	--	--	--	--	--	--	--	
MW-01	5/26/2000		7.76	4.79	--	2.97	--	110,000	700	44	140	250	320,000	--	--	--	--	--	--	--	--	
MW-01	9/6/2000		7.76	5.19	--	2.57	--	5,600	1,000	13	57	90	19,000	--	--	--	--	--	--	--	--	
MW-01	9/15/2000		7.76	5.73	--	2.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-01	12/11/2000		7.76	5.82	--	1.94	--	5,500	1,160	47	155	292	3,900	--	--	--	--	--	--	--	--	
MW-01	3/29/2001		7.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-01	6/27/2001		7.76	5.49	--	2.27	--	6,100	1,200	13	17	78	1,780	--	--	--	--	--	--	--	--	
MW-01	9/19/2001		7.76	6.19	--	1.57	--	1,800	102	<12.5	<12.5	<37.5	1,090	--	--	--	--	--	--	--	--	
MW-01	12/28/2001		7.76	5.27	--	2.49	--	4,000	540	12	20	65	1,120	--	--	--	--	--	--	--	--	
MW-01	3/12/2002		7.76	5.68	--	2.08	--	3,700	491	8.4	12	27	1,020	--	--	--	--	--	--	--	--	
MW-01	6/13/2002		7.76	5.54	--	2.22	--	1,900	255	<12.5	<12.5	<25	6,490	--	--	--	--	--	--	--	--	
MW-01	9/6/2002		7.76	5.56	--	2.2	--	1,100	170	5.1	2.2	20	550	--	--	--	--	--	--	--	--	
MW-01	12/13/2002		7.76	5.45	--	2.31	--	2,700	610	10	18	67	470	--	--	--	--	--	--	--	--	

Table 2
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Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-01	2/19/2003		7.76	3	--	4.76	--	1,500	180	<5.0	<5.0	15	610	--	--	--	--	--	--	--	--	
MW-01	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-01	8/7/2003		7.76	5.55	--	2.21	--	2,000	290	<5.0	<5.0	15	920	560	<5.0	<5.0	<5.0	<5.0	12	<1,000	--	
MW-01	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-01	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	<5.0	<5.0	<1,000	--	
MW-01	8/26/2004		7.76	4.03	--	3.73	--	1,700	220	7.2	15	35	180	320	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-01	12/1/2004		7.76	3.93	--	3.83	--	2,100	380	8	34	76	170	300	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	
MW-01	2/2/2005		7.76	3.61	--	4.15	--	1,100	150	3	12	14	160	6,700	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-01	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	<2.5	<2.5	<500	--	
MW-01	9/30/2005		10.16	3.54	--	6.62	--	4,600	1,000	15	78	150	250	1,200	<5.0	13	<5.0	<5.0	<5.0	<500	--	
MW-01	12/28/2005		10.16	3.26	--	6.9	--	1,500	200	5.7	32	58	140	1,800	<5.0	<10	<5.0	--	<5.0	<1,000	--	
MW-01	3/23/2006		10.16	3.4	--	6.76	--	580	42	<5.0	10	20	40	2,800	<5.0	<10	<5.0	<5.0	<5.0	<1,000	--	
MW-01	6/5/2006		10.16	2.97	--	7.19	--	900	230	2.5	28	71	160	1,900	<2.5	<5.0	<2.5	<2.5	<2.5	<500	--	
MW-01	9/19/2006		10.16	3.67	--	6.49	--	1,600	240	3.4	11	23	180	1,000	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-01	12/1/2006		10.16	3.64	--	6.52	--	1,400	86	4.3	7	19	150	930	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-01	3/1/2007		10.16	3.55	--	6.61	--	4,200	340	7	34	46	160	510	<2.0	<4.0	<2.0	<2.0	2	<1,000	--	
MW-01	6/1/2007		10.16	3.53	--	6.63	--	2,100	200	3.4	34	59	140	1,500	<2.0	<4.0	<2.0	<2.0	2.2	<1,000	--	
MW-01	9/13/2007		10.16	4.88	--	5.28	--	540	74	2.4	5.4	10	59	1,300	<2.0	<4.0	<2.0	<2.0	<2.0	1,100	--	
MW-01	11/21/2007		10.16	3.7	--	6.46	--	1,800	67	6.2	3.5	12	200	1,300	<2.0	<4.0	<2.0	<2.0	2.7	<1,000	--	
MW-01	2/29/2008		10.16	3.49	--	6.67	--	970	100	1.9	37	32	25	1,200	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-01	5/23/2008		10.16	4.26	--	5.9	--	1,300	170	3.5	15	26	120	1,800	<0.5	<1.0	<0.5	<0.5	1.4	<250	--	
MW-01	9/26/2008		10.16	4.29	--	5.87	--	1,800	26	6.1	<1.0	10	120	1,400	<1.0	<1.0	<1.0	<1.0	1.9	<250	--	
MW-01	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	<1.0	<1.0	<250	--	
MW-01	3/9/2009		10.16	3.29	--	6.87	--	2,100	200	5.6	16	29	88	1,300	<1.0	<1.0	<1.0	<1.0	1.7	<250	--	
MW-01	5/28/2009		10.16	4.02	--	6.14	--	880	64	1.5	3.4	9.4	48	1,800	<1.0	<1.0	<1.0	<1.0	1.3	<250	0.46	
MW-01	12/10/2009		10.16	3.92	--	6.24	--	1,300	46	6.9	2.6	10	65	560	<0.50	<0.50	<0.50	<0.50	1.1	<100	0.47	
MW-01	6/29/2010		10.16	3.6	--	6.56	--	530	18	1.3	<0.50	4.3	<0.50	2,000	<0.50	<0.50	<0.50	<0.50	1.2	<100	0.53	
MW-01	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	<0.50	<0.50	1.0	<250	0.57	
MW-01	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-01	1/30/2012		10.16	3.82	--	6.34	--	1,100	42	4.5	0.90	7.2	64	900	--	--	--	--	1.3	--	0.66	
MW-01	6/27/2012		10.16	3.79	--	6.37	--	420	15	0.74	<0.50	3.1	18	1,400	--	--	--	--	0.83	--	1.62	
MW-01	12/7/2012		10.16	3.3	--	6.86	--	700	6.3	2.3	<0.50	4.8	32	1,400	--	--	--	--	0.81	--	1.64	
MW-01	6/6/2013		10.16	3.73	--	6.43	--	240	11	6.7	14	9.8	6.9	170	--	--	--	--	<0.50	--	1.09	
MW-01	12/13/2013		10.16	3.88	--	6.28	--	680	23	3.2	3.4	9.9	36	1,500	--	--	--	--	1.7	--	2.90	
MW-01	6/30/2014		10.16	3.77	--	6.39	--	160	7.8	0.58	<0.50	<1.0	4.2	970	--	--	--	--	<0.50	--	0.23	

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1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes	
MW-02	11/4/1992	Dup	8.56	5.88	--	2.68	--	12,000	3,200	980	<0.5	1,900	--	--	--	--	--	--	--	--	--	(Dup)	
MW-02	10/12/1993		8.56	6.29	--	2.27	--	4,500	3,400	180	230	940	442	--	--	--	--	--	--	--	--		
MW-02	2/15/1994	Dup	8.56	--	--	--	--	2,000	430	270	28	390	127	--	--	--	--	--	--	--	4	(Dup)	
MW-02	5/11/1994	Dup	8.56	5.17	--	3.39	--	15,000	5,600	1,500	470	2,000	740	--	--	--	--	--	--	--	--	(Dup)	
MW-02	8/1/1994		8.56	5.43	--	3.13	--	8,200	3,000	420	230	680	1,676	--	--	--	--	--	--	--	2.60		
MW-02	10/18/1994		8.56	5.71	--	2.85	--	9,000	2,000	140	150	420	2,417	--	--	--	--	--	--	--	7.20		
MW-02	1/13/1995		8.56	4.67	--	3.89	--	7,900	2,200	42	<5.0	770	--	--	--	--	--	--	--	--	6.80		
MW-02	4/13/1995	Dup	8.56	4.37	--	4.19	--	25,000	6,500	1,500	110	5,300	--	--	--	--	--	--	--	--	--	(Dup)	
MW-02	7/11/1995	Dup	8.56	4.51	--	4.05	--	28,000	6,800	1,000	900	4,900	--	--	--	--	--	--	--	--	--	(Dup)	
MW-02	11/2/1995	Dup	8.56	5.55	--	3.01	--	22,000	4,000	1,200	600	2,700	19,000	--	--	--	--	--	--	--	--	(Dup)	
MW-02	2/5/1996	Dup	8.56	5.1	--	3.46	--	910	290	180	19	137	93	--	--	--	--	--	--	--	--	(Dup)	
MW-02	4/24/1996	Dup	8.56	--	--	--	--	<500	70	22	<10	61	<50	--	--	--	--	--	--	--	7	(Dup)	
MW-02	7/15/1996		8.56	5.4	--	3.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	7/16/1996		8.56	--	--	--	--	12,000	3,300	1,400	250	2,610	1,400	--	--	--	--	--	--	--	7.80		
MW-02	7/30/1996		8.56	5.44	--	3.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	11/4/1996		8.56	7.06	--	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	11/5/1996	Dup	8.56	--	--	--	--	9,200	1,300	170	<25	2,240	1,100	--	--	--	--	--	--	--	--	(Dup)	
MW-02	5/17/1997		8.56	5.77	--	2.79	--	570	42	<5.0	5	60	210	--	--	--	--	--	--	--	--	6.90	
MW-02	8/11/1997		8.56	5.71	--	2.85	--	6,300	1,800	130	86	397	2,400	--	--	--	--	--	--	--	--	8.50	
MW-02	11/17/1997		8.56	6.91	--	1.65	--	2,400	220	30	33	259	130	--	--	--	--	--	--	--	--	7.90	
MW-02	1/29/1998		8.56	4.61	--	3.95	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	6.20	
MW-02	6/22/1998		8.56	4.8	--	3.76	--	4,200	640	150	120	650	560	--	--	--	--	--	--	--	--	5.40	
MW-02	12/30/1998		8.56	5.21	--	3.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	6/23/1999		8.56	5.3	--	3.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	9/23/1999		8.56	4.75	--	3.81	--	3,800	760	19	210	960	910	--	--	--	--	--	--	--	--		
MW-02	12/28/1999		8.56	4.51	--	4.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	3/22/2000		8.56	4.21	--	4.35	--	2,500	780	17	44	270	2,800	--	--	--	--	--	--	--	--		
MW-02	5/26/2000		8.56	4.66	--	3.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	9/6/2000		8.56	4.71	--	3.85	--	3,700	1,200	5.5	12	170	12,000	--	--	--	--	--	--	--	--		
MW-02	9/15/2000		8.56	4.74	--	3.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	12/11/2000		8.56	4.79	--	3.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-02	3/29/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-02	6/27/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-02	9/19/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-02	12/28/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-02	3/12/2002		8.56	4.25	--	4.31	--	26,000	1,160	4.4	61	171	37,300	--	--	--	--	--	--	--	--		
MW-02	6/13/2002		8.56	4.94	--	3.62	--	18,000	578	<50	<50	<100	84,600	--	--	--	--	--	--	--	--		
MW-02	9/6/2002		8.56	5.23	--	3.33	--	26,000	440	<50	<50	<50	45,000	--	--	--	--	--	--	--	--		
MW-02	12/13/2002		8.56	4.94	--	3.62	--	69,000	1,200	<500	<500	<500	98,000	--	--	--	--	--	--	--	--		

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CA-11126
1700 Powell St, Emeryville, CA 94608

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CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-03	11/4/1992		8.25	6.38	--	1.87	690	200	1.6	<0.5	<0.5	1.1	--	--	--	--	--	--	--	--	--	
MW-03	10/12/1993	Dup	8.25	--	--	--	2,100	270	5	0.7	<0.5	2.6	96	--	--	--	--	--	--	--	(Dup)	
MW-03	2/15/1994		8.25	6.6	--	1.65	2.3	140	5.7	<0.5	<0.5	<0.5	30	--	--	--	--	--	--	--	3.90	
MW-03	5/11/1994		8.25	5.86	--	2.39	2,500	190	2.7	1.9	<0.5	1.9	51	--	--	--	--	--	--	--	9.20	
MW-03	8/1/1994		8.25	6.13	--	2.12	1,300	120	1.3	<0.5	0.5	1.1	18	--	--	--	--	--	--	--	2.90	
MW-03	10/18/1994		8.25	6.39	--	1.86	2,200	100	2.3	<0.5	<0.5	<0.5	21	--	--	--	--	--	--	--	3.60	
MW-03	1/13/1995		8.25	5.47	--	2.78	970	<50	0.8	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.70	
MW-03	4/13/1995		8.25	5.17	--	3.08	<500	530	8.7	1.9	<0.5	3.9	--	--	--	--	--	--	--	--	8.40	
MW-03	7/11/1995		8.25	5.37	--	2.88	2,100	78	0.57	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	8.30	
MW-03	11/2/1995		8.25	6.29	--	1.96	2,000	250	0.73	<0.5	<0.5	1.8	270	--	--	--	--	--	--	--	8.30	
MW-03	2/5/1996		8.25	5.8	--	2.45	1,600	<50	<0.5	<1.0	<1.0	2.7	11	--	--	--	--	--	--	--	3.50	
MW-03	4/24/1996		8.25	5.69	--	2.56	2,800	<50	<5.0	<10	<10	<10	150	--	--	--	--	--	--	--	8.60	
MW-03	7/15/1996		8.25	6.18	--	2.07	3,700	<250	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	7.70	
MW-03	7/30/1996		8.25	6.04	--	2.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	11/4/1996		8.25	7.84	--	0.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	11/5/1996		8.25	--	--	--	890	90	<0.5	<1.0	<1.0	<1.0	30	--	--	--	--	--	--	--	6.80	
MW-03	5/17/1997		8.25	6.49	--	1.76	2,100	<50	<0.5	<1.0	<1.0	<1.0	52	--	--	--	--	--	--	--	6.30	
MW-03	8/11/1997		8.25	6.15	--	2.1	1,900	490	<2.5	<5.0	<5.0	<5.0	170	--	--	--	--	--	--	--	7.40	
MW-03	11/17/1997		8.25	7.15	--	1.1	2,500	120	<0.5	<1.0	<1.0	<1.0	46	--	--	--	--	--	--	--	7	
MW-03	1/29/1998		8.25	5.1	--	3.15	1,700	270	0.53	<1.0	<1.0	<1.0	330	--	--	--	--	--	--	--	6.40	
MW-03	6/22/1998		8.25	5.5	--	2.75	2,200	200	<0.5	<1.0	<1.0	<1.0	130	--	--	--	--	--	--	--	5.50	
MW-03	12/30/1998		8.25	6.68	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	3/9/1999		8.25	5.53	--	2.72	840	60	<1.0	<1.0	<1.0	<1.0	19	--	--	--	--	--	--	--	--	
MW-03	6/23/1999		8.25	6.6	--	1.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	9/23/1999		8.25	6.17	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	12/28/1999		8.25	6	--	2.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	3/22/2000		8.25	4.77	--	3.48	<58	690	4.2	3.1	0.81	2.7	2,900	--	--	--	--	--	--	--	--	
MW-03	5/26/2000		8.25	5.28	--	2.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	9/15/2000		8.25	5.58	--	2.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	12/11/2000		8.25	11.74	--	-3.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-03	3/29/2001		8.25	5.04	--	3.21	<50	650	<2.5	<2.5	<2.5	<7.5	680	--	--	--	--	--	--	--	--	
MW-03	6/27/2001		8.25	5.62	--	2.63	690	460	<2.5	<2.5	<2.5	<7.5	560	--	--	--	--	--	--	--	--	
MW-03	9/19/2001		8.25	5.8	--	2.45	520	<500	<5.0	<5.0	<5.0	<15	464	--	--	--	--	--	--	--	--	
MW-03	12/28/2001		8.25	4.85	--	3.4	550	180	<0.5	<0.5	<0.5	<1.0	180	--	--	--	--	--	--	--	--	
MW-03	3/12/2002		8.25	4.39	--	3.86	1,300	410	<2.5	<2.5	<2.5	<5.0	443	--	--	--	--	--	--	--	--	
MW-03	6/13/2002		8.25	5.38	--	2.87	2,600	<250	<2.5	<2.5	<2.5	<5.0	395	--	--	--	--	--	--	--	--	
MW-03	9/6/2002		8.25	5.68	--	2.57	--	<200	<2.0	<2.0	<2.0	<2.0	650	--	--	--	--	--	--	--	--	
MW-03	12/13/2002		8.25	5.37	--	2.88	980	<50	<0.5	<0.5	<0.5	<0.5	60	--	--	--	--	--	--	--	--	

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Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-03	2/19/2003		8.25	4.8	--	3.45	380	<1,000	<10	<10	<10	<10	120	--	--	--	--	--	--	--	--	
MW-03	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-03	8/7/2003		8.25	5.43	--	2.82	820(N)	<500	5.7	<5.0	<5.0	<5.0	290	<200	<5.0	<5.0	<5.0	<5.0	20	<1,000	--	
MW-03	11/20/2003		8.25	4.72	--	3.53	1,200(N)	<50	<0.5	<0.5	<0.5	<0.5	17	<20	--	<0.5	<0.5	--	1.4	<100	--	
MW-03	4/28/2004		8.25	4.87	--	3.38	240(N)	<100	<1.0	<1.0	<1.0	<1.0	87	<40	<1.0	<1.0	<1.0	<1.0	3.9	<200	--	
MW-03	8/26/2004		8.25	5.42	--	2.83	250(N)	56	<0.5	<0.5	<0.5	<0.5	34	260	<0.5	<0.5	<0.5	<0.5	2	<100	--	
MW-03	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	<1.0	<1.0	<200	--	
MW-03	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	<1.0	<1.0	1.1	<200	--	
MW-03	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	<2.5	<2.5	10	<500	--	
MW-03	9/30/2005		10.73	5.3	--	5.43	300(N)	<50	<0.5	<0.5	<0.5	<0.5	8.2	270	<0.5	<0.5	<0.5	<0.5	0.68	<50	--	
MW-03	12/28/2005		10.73	4.41	--	6.32	100	<50	<0.5	<0.5	<0.5	<0.5	0.66	<5.0	<0.5	<1.0	<0.5	--	<0.5	<100	--	
MW-03	3/23/2006		10.73	4.43	--	6.3	260	<50	<0.5	<0.5	<0.5	<0.5	13	130	<0.5	<1.0	<0.5	<0.5	0.63	<100	--	
MW-03	6/5/2006		10.73	4.95	--	5.78	340	61	0.69	1.4	0.85	3.6	29	510	<0.5	<1.0	<0.5	<0.5	1.6	<100	--	
MW-03	9/19/2006		10.73	5.19	--	5.54	330	<50	<0.5	<0.5	<0.5	<1.0	4.1	420	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-03	12/1/2006		10.73	5.37	--	5.36	130	<50	<0.5	<0.5	<0.5	<1.0	2	250	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-03	3/1/2007		10.73	4.62	--	6.11	120	<50	<0.5	<0.5	<0.5	<1.0	3.8	77	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-03	6/1/2007		10.73	5.53	--	5.2	350	<50	<0.5	<0.5	<0.5	<1.0	3.7	320	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-03	9/13/2007		10.73	6.17	--	4.56	1,200	<250	<2.5	<2.5	<2.5	<5.0	2.6	2,000	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-03	11/21/2007		10.73	6.16	--	4.57	1,600	<250	<2.5	<2.5	<2.5	<5.0	3.4	2,600	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-03	2/29/2008		10.73	5.38	--	5.35	350	<50	<0.5	<0.5	<0.5	<1.0	0.9	540	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-03	5/23/2008		10.73	6.07	--	4.66	1,100	<500	<5.0	<5.0	<5.0	<10	<5.0	3,200	<5.0	<10	<5.0	<5.0	<5.0	<2,500	--	
MW-03	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	<1.0	<1.0	<250	--	
MW-03	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	<1.0	<1.0	<250	--	
MW-03	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	<1.0	<1.0	<250	--	
MW-03	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	<1.0	<1.0	<250	0.19	
MW-03	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	<0.50	<0.50	<100	0.72	
MW-03	12/18/2009		--	--	--	450	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-03	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	<0.50	<0.50	<100	0.52	
MW-03	12/30/2010		10.73	4.33	--	6.4	520	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<250	--		
MW-03	6/29/2011		10.73	5	--	5.73	250	<50	--	--	--	--	0.73	73	--	--	--	<0.50	--	0.45		
MW-03	1/30/2012		10.73	5.22	--	5.51	160	<50	--	--	--	--	<0.50	65	--	--	--	<0.50	--	1.21		
MW-03	6/27/2012		10.73	5.19	--	5.54	270	<50	--	--	--	--	1.6	250	--	--	--	<0.50	--	1.14		
MW-03	12/7/2012		10.73	4.65	--	6.08	110	<50	--	--	--	--	<0.50	20	--	--	--	<0.50	--	1.10		
MW-03	6/6/2013		10.73	5.51	--	5.22	300	<50	--	--	--	--	1.9	540	--	--	--	<0.50	--	1.38		
MW-03	12/13/2013		10.73	5.77	--	4.96	<49	<50	--	--	--	--	0.54	680	--	--	--	<0.50	--	1.92		
MW-03	6/30/2014		10.73	5.56	--	5.17	<47	<50	--	--	--	--	1.5	1,900	--	--	--	<0.50	--	1.09		

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-04	11/4/1992		8.12	6.66	--	1.46	--	340	4.5	<0.5	4.3	<0.5	--	--	--	--	--	--	--	--	--	
MW-04	10/12/1993		8.12	6.87	--	1.25	--	160	5.8	1.4	0.8	2.7	261	--	--	--	--	--	--	--	--	
MW-04	2/15/1994		8.12	6.61	--	1.51	--	110	4.4	0.7	<0.5	2.5	118	--	--	--	--	--	--	--	4.30	
MW-04	5/11/1994		8.12	5.89	--	2.23	--	120	0.5	0.8	<0.5	<0.5	137	--	--	--	--	--	--	--	9.30	
MW-04	8/1/1994		8.12	6.87	--	1.25	--	140	0.7	2	5.2	15	138	--	--	--	--	--	--	--	3.30	
MW-04	10/18/1994		8.12	6.62	--	1.5	--	140	3.5	<0.5	0.5	<0.5	197	--	--	--	--	--	--	--	3	
MW-04	1/13/1995		8.12	7.27	--	0.85	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.90	
MW-04	4/13/1995		8.12	6.51	--	1.61	--	73	1.2	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	9.90	
MW-04	7/11/1995		8.12	6.21	--	1.91	--	82	0.57	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.20	
MW-04	11/2/1995		8.12	6.78	--	1.34	--	71	1.4	0.96	0.99	2.8	140	--	--	--	--	--	--	--	8.60	
MW-04	2/5/1996		8.12	6.41	--	1.71	--	<50	<5.0	<10	<10	<10	200	--	--	--	--	--	--	--	4.40	
MW-04	4/24/1996		8.12	6.18	--	1.94	--	<250	<2.5	<5.0	<5.0	<5.0	510	--	--	--	--	--	--	--	8.30	
MW-04	7/15/1996		8.12	6.63	--	1.49	--	<50	5.7	<1.0	<1.0	<1.0	550	--	--	--	--	--	--	--	7.40	
MW-04	7/30/1996		8.12	6.34	--	1.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	11/4/1996		8.12	8.27	--	-0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	11/5/1996		8.12	--	--	--	--	460	<2.5	11	<5.0	<5.0	620	--	--	--	--	--	--	--	7.30	
MW-04	5/17/1997		8.12	7	--	1.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	8/11/1997		8.12	6.81	--	1.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	11/17/1997		8.12	9.19	--	-1.07	--	840	<0.5	<1.0	<1.0	<1.0	880	--	--	--	--	--	--	--	7.30	
MW-04	1/29/1998		8.12	7.94	--	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	6/22/1998		8.12	7.49	--	0.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	12/30/1998		8.12	8.21	--	-0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	3/9/1999		8.12	7.7	--	0.42	--	1,200	<1.0	<1.0	<1.0	<1.0	2,000	--	--	--	--	--	--	--	--	
MW-04	6/23/1999		8.12	8.81	--	-0.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	9/23/1999		8.12	8.32	--	-0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	12/28/1999		8.12	8.21	--	-0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	3/22/2000		8.12	6.74	--	1.38	--	910	<0.5	<0.5	0.54	1.7	3,800	--	--	--	--	--	--	--	--	
MW-04	5/26/2000		8.12	5.13	--	2.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	9/15/2000		8.12	8.2	--	-0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	12/11/2000		8.12	8.31	--	-0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-04	3/29/2001		8.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-04	6/27/2001		8.12	7.57	--	0.55	--	2,800	19	<2.5	<2.5	<7.5	4,220	--	--	--	--	--	--	--	--	
MW-04	9/19/2001		8.12	7.87	--	0.25	--	2,500	<5.0	<5.0	<5.0	<15	3,340	--	--	--	--	--	--	--	--	
MW-04	12/28/2001		8.12	7.8	--	0.32	--	4,400	<5.0	<5.0	<5.0	<10	5,330	--	--	--	--	--	--	--	--	
MW-04	3/12/2002		8.12	4.53	--	3.59	--	6,400	72	<5.0	<5.0	<10	8,440	--	--	--	--	--	--	--	--	
MW-04	6/13/2002		8.12	6.21	--	1.91	--	1,800	7.5	<5.0	5	13	6,870	--	--	--	--	--	--	--	--	
MW-04	9/6/2002		8.12	7.78	--	0.34	--	<2,000	<20	<20	<20	<20	9,600	--	--	--	--	--	--	--	--	
MW-04	12/13/2002		8.12	7.87	--	0.25	--	5,600	<50	<50	<50	<50	8,600	--	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-04	2/19/2003		8.12	4.84	--	3.28	--	<10,000	<100	<100	<100	<100	8,000	--	--	--	--	--	--	--	--	
MW-04	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-04	8/7/2003		8.12	7.24	--	0.88	--	6,200	<50	<50	<50	<50	6,600	2,400	<50	<50	<50	<50	160	<10,000	--	
MW-04	11/20/2003		8.12	7.02	--	1.1	--	10,000	<100	<100	<100	<100	11,000	<4,000	--	<100	<100	--	310	<20,000	--	
MW-04	4/28/2004		8.12	4.81	--	3.31	--	<25,000	<250	<250	<250	<250	3,600	15,000	<250	<250	<250	<250	<250	<50,000	--	
MW-04	8/26/2004		8.12	5.65	--	2.47	--	<2,500	<25	<25	<25	<25	1,800	16,000	<25	<25	<25	<25	60	--	--	
MW-04	12/1/2004		8.12	7.34	--	0.78	--	1,100	<10	<10	<10	<10	450	19,000	<10	<10	<10	<10	10	<2,000	--	
MW-04	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	<5.0	<5.0	10	<1,000	--	
MW-04	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	<5.0	<5.0	<1,000	--	
MW-04	9/30/2005		10.58	7.72	--	2.86	--	<2,500	63	58	46	140	110	30,000	<25	<25	<25	<25	<25	<2,500	--	
MW-04	12/28/2005		10.58	7.48	--	3.1	--	<2,500	<25	<25	<25	<50	34	27,000	<25	<50	<25	--	<25	<5,000	--	
MW-04	3/23/2006		10.58	4.42	--	6.16	--	<2,500	<25	<25	<25	<50	120	34,000	<25	<50	<25	<25	<25	<5,000	--	
MW-04	6/5/2006		10.58	4.97	--	5.61	--	<5,000	<50	<50	<50	<100	<50	34,000	<50	<100	<50	<50	<50	<10,000	--	
MW-04	9/19/2006		10.58	5.45	--	5.13	--	<5,000	<50	<50	<50	<100	110	27,000	<50	<100	<50	<50	<50	<25,000	--	
MW-04	12/1/2006		10.58	5.14	--	5.44	--	<5,000	<50	<50	<50	<100	68	31,000	<50	<100	<50	<50	<50	<25,000	--	
MW-04	3/1/2007		10.58	7.6	--	2.98	--	<5,000	<50	<50	<50	<100	<50	31,000	<50	<100	<50	<50	<50	<25,000	--	
MW-04	6/1/2007		10.58	5.21	--	5.37	--	2,700	<25	<25	<25	<50	31	32,000	<25	<50	<25	<25	<25	<13,000	--	
MW-04	9/13/2007		10.58	6.45	--	4.13	--	<2,500	<25	<25	<25	<50	<25	10,000	<25	<50	<25	<25	<25	<13,000	--	
MW-04	11/21/2007		10.58	5.68	--	4.9	--	<2,500	<25	<25	<25	<50	<25	38,000	<25	<50	<25	<25	<25	<13,000	--	
MW-04	2/29/2008		10.58	6.44	--	4.14	--	<5,000	<50	<50	<50	<100	<50	32,000	<50	<100	<50	<50	<50	<25,000	--	
MW-04	5/23/2008		10.58	6.01	--	4.57	--	<5,000	<50	<50	<50	<100	<50	42,000	<50	<100	<50	<50	<50	<25,000	--	
MW-04	9/26/2008		10.58	7.37	--	3.21	--	370	<1.0	<1.0	<1.0	<1.0	<1.0	14	39,000	<1.0	<1.0	2.8	<1.0	<1.0	<250	--
MW-04	12/23/2008		10.58	6.04	--	4.54	--	270	<1.0	<1.0	<1.0	<1.0	<1.0	15	37,000	<1.0	<1.0	3.2	<1.0	<1.0	<250	--
MW-04	3/9/2009		10.58	5.3	--	5.28	--	140	<1.0	<1.0	<1.0	<1.0	<1.0	18	27,000	<1.0	<1.0	3.5	<1.0	<1.0	<250	--
MW-04	5/28/2009		10.58	7.06	--	3.52	--	330	<1.0	<1.0	<1.0	<1.0	<1.0	21	36,000	<1.0	<1.0	2.9	<1.0	1.1	<250	0.41
MW-04	12/10/2009		10.58	6.24	--	4.34	--	660	<0.50	<0.50	<0.50	<1.0	10	39,000	<0.50	<0.50	2.7	<0.50	<0.50	<100	0.49	
MW-04	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	<5.0	<5.0	<1,000	--	
MW-04	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	<5.0	<5.0	<2,500	--	
MW-04	6/29/2011		10.58	6.43	--	4.15	610	<500	--	--	--	--	11	30,000	--	--	--	--	<5.0	--	0.45	
MW-04	1/30/2012		10.58	6.72	--	3.86	530	72	--	--	--	--	11	23,000	--	--	--	--	0.50	--	0.55	
MW-04	6/29/2012		10.58	5.5	--	5.08	480	<500	--	--	--	--	9.3	28,000	--	--	--	--	<5.0	--	1.21	
MW-04	12/7/2012		10.58	7.05	--	3.53	330	<500	--	--	--	--	8.7	18,000	--	--	--	--	<0.50	--	1.37	
MW-04	6/6/2013		10.58	6.53	--	4.05	600	<500	--	--	--	--	6.7	26,000	--	--	--	--	<5.0	--	1.30	
MW-04	12/13/2013		10.58	7.15	--	3.43	<49	<500	--	--	--	--	7.2	19,000	--	--	--	--	<5.0	--	3.07	
MW-04	6/30/2014		10.58	5.85	--	4.73	800	<500	--	--	--	--	5.5	24,000	--	--	--	--	<5.0	--	0.22	

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CA-11126
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Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-05	10/12/1993		7.69	6.01	--	1.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-05	10/13/1993		7.69	--	--	--	--	2,300	160	10	<0.5	26	--	--	--	--	--	--	--	--	--	
MW-05	2/15/1994		7.69	5.74	--	1.95	--	5,100	710	16	33	35	153	--	--	--	--	--	--	--	4	
MW-05	5/11/1994		7.69	5.28	--	2.41	--	11,000	1,100	39	110	57	165	--	--	--	--	--	--	--	8	
MW-05	8/1/1994		7.69	5.84	--	1.85	--	9,000	730	35	61	41	196	--	--	--	--	--	--	--	2.60	
MW-05	10/18/1994		7.69	6.01	--	1.68	--	7,800	330	30	27	27	559	--	--	--	--	--	--	--	5.60	
MW-05	1/13/1995		7.69	4.74	--	2.95	--	<500	290	6	<5.0	18	--	--	--	--	--	--	--	--	6.80	
MW-05	4/13/1995		7.69	5.5	--	2.19	--	9,100	400	15	52	27	--	--	--	--	--	--	--	--	7.40	
MW-05	7/11/1995		7.69	5.75	--	1.94	--	7,300	390	13	28	23	--	--	--	--	--	--	--	--	7.20	
MW-05	11/3/1995		7.69	6.65	--	1.04	--	7,200	270	15	38	23	200	--	--	--	--	--	--	--	8.40	
MW-05	2/5/1996		7.69	4.83	--	2.86	--	4,600	370	15	53	28	<50	--	--	--	--	--	--	--	1.90	
MW-05	4/24/1996		7.69	6.09	--	1.6	--	3,000	180	<10	32	14	<100	--	--	--	--	--	--	--	8.10	
MW-05	7/15/1996		7.69	6.57	--	1.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-05	7/16/1996		7.69	--	--	--	--	<50	190	<10	31	16	<100	--	--	--	--	--	--	--	8.30	
MW-05	7/30/1996		7.69	5.61	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-05	8/12/1996		7.69	--	--	--	--	2,000	150	12	25	18	<50	--	--	--	--	--	--	--	7.60	
MW-05	11/4/1996		7.69	8.25	--	-0.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-05	11/5/1996		7.69	--	--	--	--	5,200	42	5.5	13	<5.0	1,700	--	--	--	--	--	--	--	7.40	
MW-05	5/17/1997		7.69	6.95	--	0.74	--	80	0.56	<1.0	<1.0	<1.0	46	--	--	--	--	--	--	--	6.70	
MW-05	8/11/1997		7.69	6.72	--	0.97	--	2,700	20	12	6.7	9.7	1,900	--	--	--	--	--	--	--	8.50	
MW-05	11/17/1997		7.69	9.49	--	-1.8	--	8,400	25	12	8.7	5.4	13,000	--	--	--	--	--	--	--	7.90	
MW-05	1/29/1998		7.69	7.88	--	-0.19	--	110,000	2,500	110	180	589	180,000	--	--	--	--	--	--	--	6.80	
MW-05	6/22/1998		7.69	7.4	--	0.29	--	4,400	47	10	29	21	47	--	--	--	--	--	--	--	6.60	
MW-05	12/30/1998		7.69	6.13	--	1.56	--	6,000	18	9.1	22	16	63	--	--	--	--	--	--	--	--	
MW-05	3/9/1999		7.69	4.79	--	2.9	--	4,600	8.8	5.5	12	11	24	--	--	--	--	--	--	--	--	
MW-05	6/23/1999		7.69	5.95	--	1.74	--	3,400	1,500	8.9	54	87	7,500	--	--	--	--	--	--	--	--	
MW-05	9/23/1999		7.69	5.43	--	2.26	--	2,600	510	14	140	650	580	--	--	--	--	--	--	--	--	
MW-05	12/28/1999		7.69	5.3	--	2.39	--	3,500	900	18	57	140	4,800	--	--	--	--	--	--	--	--	
MW-05	3/22/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-05	5/26/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-05	9/6/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-05	9/15/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-05	12/11/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-05	3/29/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-05	6/27/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-05	9/19/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-05	12/28/2001		7.69	4.65	--	3.04	--	4,600	20	25	16	57	72	--	--	--	--	--	--	--	--	
MW-05	3/12/2002		7.69	5.35	--	2.34	--	5,100	45	14	22	39	32	--	--	--	--	--	--	--	--	
MW-05	6/13/2002		7.69	5.34	--	2.35	--	2,900	32	<12.5	<12.5	<25	616	--	--	--	--	--	--	--	--	
MW-05	9/6/2002		7.69	5.46	--	2.23	--	3,400	23	5.5	<5.0	11	230	--	--	--	--	--	--	--	--	
MW-05	12/13/2002		7.69	5.47	--	2.22	--	2,500	12	9.3	4.6	8.8	110	--	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-05	2/19/2003		7.69	5.29	--	2.4	--	2,800	11	5.4	9.7	12	6.4	--	--	--	--	--	--	--	--	
MW-05	6/6/2003		7.69	5.3	--	2.39	--	3,200	9.1	<5.0	7.6	9.3	<5.0	<200	--	<5.0	<5.0	--	<5.0	<1,000	--	
MW-05	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	<5.0	<5.0	<1,000	--	
MW-05	11/20/2003		7.69	5.39	--	2.3	--	3,500	12	5.4	6.4	12	12	<100	--	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-05	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	<2.5	<2.5	<500	--	
MW-05	8/26/2004		7.69	5.42	--	2.27	--	2,400	23	4	3.6	11	74	<100	<2.5	<2.5	<2.5	<2.5	<2.5	--	--	
MW-05	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	<5.0	<5.0	<1,000	--	
MW-05	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	<2.5	<2.5	<500	--	
MW-05	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	<2.5	<2.5	<500	--	
MW-05	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	<1.0	<1.0	<100	--	
MW-05	12/28/2005		10.18	4.85	--	5.33	--	7,700	7.7	3.3	2.9	7.1	3.8	<20	<2.0	14	<2.0	--	<2.0	<400	--	
MW-05	3/23/2006		10.18	5.07	--	5.11	--	5,700	11	3.3	2.4	8.1	8.6	37	<2.0	<4.0	<2.0	<2.0	<2.0	<400	--	
MW-05	6/5/2006		10.18	5.39	(Sheen)	4.79	--	5,900	36	5	3.7	15	11	90	<2.5	<5.0	<2.5	<2.5	<2.5	<500	--	
MW-05	9/19/2006		10.18	4.75	--	5.43	--	4,600	6.7	<2.5	<2.5	<5.0	12	53	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-05	12/1/2006		10.18	5.29	--	4.89	--	4,400	5	<2.5	<2.5	5.8	14	<25	<2.5	<5.0	<2.5	<2.5	2.7	<1,300	--	
MW-05	3/1/2007		10.18	5.01	--	5.17	--	6,400	6.2	3	<2.5	8.7	<2.5	<25	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-05	6/1/2007		10.18	5.34	--	4.84	--	7,000	3.4	<2.5	<2.5	6.6	11	40	<2.5	32	<2.5	5.8	<2.5	<1,300	--	
MW-05	9/13/2007		10.18	5.11	--	5.07	--	7,000	3.8	<2.5	<2.5	<5.0	8.5	<25	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-05	11/21/2007		10.18	5.34	--	4.84	--	4,700	<2.5	<2.5	<2.5	<5.0	11	310	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-05	2/29/2008		10.18	5.33	--	4.85	--	5,100	1.9	1.8	0.93	4.2	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-05	5/23/2008		10.18	5.38	--	4.8	--	4,600	<2.5	<2.5	<2.5	<5.0	3.9	<25	<2.5	<5.0	<2.5	<2.5	<2.5	<1,200	--	
MW-05	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	<1.0	<1.0	<250	--	
MW-05	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	<1.0	<1.0	<250	--	
MW-05	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	<1.0	<1.0	<250	--	
MW-05	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	<1.0	<1.0	<250	2.15	
MW-05	12/10/2009		10.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)		
MW-05	6/29/2010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)		
MW-05	12/30/2010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)		
MW-05	6/29/2011		10.18	5.38	--	4.8	--	3,300	1.7	0.60	<0.50	2.4	1.9	<4.0	--	--	--	<0.50	--	0.46	(P)	
MW-05	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-05	6/27/2012		10.18	5.39	--	4.79	--	--	--	--	--	--	--	--	--	--	--	--	--	1.52	(P, sampled 6/29/12)	
MW-05	6/29/2012		--	--	--	--	--	3,000	1.5	<0.50	<0.50	3.5	2.0	<4.0	--	--	--	<0.50	--	--		
MW-05	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-05	6/6/2013		10.18	5.47	--	4.71	--	3,800	2.1	0.67	<0.50	3.2	3.7	41	--	--	--	<0.50	--	1.06		
MW-05	12/13/2013		10.18	5.47	--	4.71	600	3,300	3.3	1.0	0.79	4.1	9.5	410	--	--	--	<0.50	--	2.87		
MW-05	6/30/2014		10.18	5.49	--	4.69	340	2,800	2.5	0.67	<0.50	3.9	5.2	160	--	--	--	<0.50	--	0.23		

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-06	10/12/1993		8.52	6.59	--	1.93	--	63	<0.5	<0.5	<0.5	<0.5	44	--	--	--	--	--	--	--	--	
MW-06	2/15/1994		8.52	6.31	--	2.21	--	68	<0.5	<0.5	<0.5	<0.5	38	--	--	--	--	--	--	--	3.10	
MW-06	5/11/1994		8.52	6.15	--	2.37	--	68	<0.5	<0.5	<0.5	<0.5	49	--	--	--	--	--	--	--	8.70	
MW-06	8/1/1994		8.52	6.46	--	2.06	--	91	<0.5	<0.5	<0.5	<0.5	60	--	--	--	--	--	--	--	2.40	
MW-06	10/18/1994		8.52	6.72	--	1.8	--	<50	<0.5	<0.5	<0.5	<0.5	85	--	--	--	--	--	--	--	6	
MW-06	1/13/1995		8.52	5.95	--	2.57	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7	
MW-06	4/13/1995		8.52	5.44	--	3.08	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	8.50	
MW-06	7/11/1995		8.52	5.68	--	2.84	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	8.40	
MW-06	11/2/1995		8.52	6.57	--	1.95	--	<50	<0.5	<0.5	<0.5	<1.0	35	--	--	--	--	--	--	--	8.30	
MW-06	2/5/1996		8.52	6.27	--	2.25	--	<50	<5.0	<10	<10	<10	<100	--	--	--	--	--	--	--	2.20	
MW-06	4/24/1996		8.52	5.95	--	2.57	--	<250	<2.5	<5.0	<5.0	<5.0	62	--	--	--	--	--	--	--	8	
MW-06	7/15/1996		8.52	6.39	--	2.13	--	<250	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	8	
MW-06	7/30/1996		8.52	6.44	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	11/4/1996		8.52	8.05	--	0.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	11/5/1996		8.52	--	--	--	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.30	
MW-06	5/17/1997		8.52	6.75	--	1.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	8/11/1997		8.52	6.48	--	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	11/17/1997		8.52	9.27	--	-0.75	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.70	
MW-06	1/29/1998		8.52	7.98	--	0.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	6/22/1998		8.52	7.68	--	0.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	12/30/1998		8.52	6.98	--	1.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	3/9/1999		8.52	5.9	--	2.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	6/23/1999		8.52	6.93	--	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	9/23/1999		8.52	6.45	--	2.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	12/28/1999		8.52	6.33	--	2.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	3/22/2000		8.52	5.15	--	3.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	5/26/2000		8.52	5.72	--	2.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	9/15/2000		8.52	6.02	--	2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	12/11/2000		8.52	6.2	--	2.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-06	3/29/2001		8.52	5.34	--	3.18	--	750	<2.5	2.9	<2.5	12	820	--	--	--	--	--	--	--	--	
MW-06	6/27/2001		8.52	6	--	2.52	--	760	33	<2.5	<2.5	<7.5	968	--	--	--	--	--	--	--	--	
MW-06	9/19/2001		8.52	6.22	--	2.3	--	<500	<5.0	<5.0	<5.0	<15	879	--	--	--	--	--	--	--	--	
MW-06	12/28/2001		8.52	4.71	--	3.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(NS)	
MW-06	3/12/2002		8.52	4.96	--	3.56	--	<500	<5.0	<5.0	<5.0	<10	244	--	--	--	--	--	--	--	--	
MW-06	6/13/2002		8.52	5.78	--	2.74	--	<250	<2.5	<2.5	<2.5	<5.0	413	--	--	--	--	--	--	--	--	
MW-06	9/6/2002		8.52	6.14	--	2.38	--	130	<0.5	<0.5	<0.5	<0.5	240	--	--	--	--	--	--	--	--	
MW-06	12/13/2002		8.52	6.05	--	2.47	--	140	<1.0	<1.0	<1.0	<1.0	200	--	--	--	--	--	--	--	--	

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CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-06	2/19/2003		8.52	5.4	--	3.12	--	<500	<5.0	<5.0	<5.0	<5.0	150	--	--	--	--	--	--	--	--	
MW-06	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-06	8/7/2003		8.52	5.94	--	2.58	--	<500	<5.0	<5.0	<5.0	<5.0	160	<200	<5.0	<5.0	<5.0	20	<1,000	--		
MW-06	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-06	4/28/2004		8.52	5.45	--	3.07	--	<250	<2.5	<2.5	<2.5	<2.5	120	<100	<2.5	<2.5	<2.5	12	<500	--		
MW-06	8/26/2004		8.52	6.06	--	2.46	--	<250	<2.5	<2.5	<2.5	<2.5	110	<100	<2.5	<2.5	<2.5	12	<500	--		
MW-06	12/1/2004		8.52	6.19	--	2.33	--	<250	<2.5	<2.5	<2.5	<2.5	86	<100	<2.5	<2.5	<2.5	11	<500	--		
MW-06	2/2/2005		8.52	5.2	--	3.32	--	55	<0.5	<0.5	<0.5	<0.5	41	32	<0.5	<0.5	<0.5	6.2	<100	--		
MW-06	4/25/2005		11.01	5.22	--	5.79	--	64	<0.5	<0.5	<0.5	<0.5	50	45	<0.5	<0.5	<0.5	6	<100	--		
MW-06	9/30/2005		11.01	5.93	--	5.08	--	200(N)	<2.0	<2.0	<2.0	<2.0	51	280	<2.0	<2.0	<2.0	4.4	<200	--		
MW-06	12/28/2005		11.01	5.49	--	5.52	--	<50	<0.5	<0.5	<0.5	<1.0	16	160	<0.5	<1.0	<0.5	--	2	<100	--	
MW-06	3/23/2006		11.01	4.59	--	6.42	--	<50	<0.5	<0.5	<0.5	<1.0	5.6	35	<0.5	<1.0	<0.5	0.91	<100	--		
MW-06	6/5/2006		11.01	5.38	--	5.63	--	<50	<0.5	0.54	<0.5	<1.0	14	110	<0.5	<1.0	<0.5	1.5	<100	--		
MW-06	9/19/2006		11.01	5.93	--	5.08	--	<50	<0.5	<0.5	<0.5	<1.0	8.8	190	<0.5	<1.0	<0.5	1.4	<250	--		
MW-06	12/1/2006		11.01	6.28	--	4.73	--	<50	<0.5	<0.5	<0.5	<1.0	5.9	98	<0.5	<1.0	<0.5	0.94	<250	--		
MW-06	3/1/2007		11.01	5.72	--	5.29	--	<50	<0.5	<0.5	<0.5	<1.0	6	96	<0.5	<1.0	<0.5	0.68	<250	--		
MW-06	6/1/2007		11.01	6.22	--	4.79	--	<50	<0.5	<0.5	<0.5	<1.0	7.4	160	<0.5	<1.0	<0.5	0.77	<250	--		
MW-06	9/13/2007		11.01	6.57	--	4.44	--	63	<0.5	<0.5	<0.5	<1.0	6.7	120	<0.5	<1.0	<0.5	0.87	<250	--		
MW-06	11/21/2007		11.01	6.67	--	4.34	--	<50	<0.5	<0.5	<0.5	<1.0	8.4	210	<0.5	<1.0	<0.5	1	<250	--		
MW-06	2/29/2008		11.01	5.8	--	5.21	--	<50	<0.5	<0.5	<0.5	<1.0	7.1	46	<0.5	<1.0	<0.5	0.92	<250	--		
MW-06	5/23/2008		11.01	6.53	--	4.48	--	<50	<0.5	<0.5	<0.5	<1.0	8.4	53	<0.5	<1.0	<0.5	0.95	<250	--		
MW-06	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	<1.0	<1.0	<250	--	
MW-06	12/23/2008		11.01	6.9	--	4.11	--	<50	<1.0	<1.0	<1.0	<1.0	5.3	54	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-06	3/9/2009		11.01	6	--	5.01	--	<50	<1.0	<1.0	<1.0	<1.0	3.5	62	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-06	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	<1.0	<1.0	<250	2.77	
MW-06	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	<0.50	<100	0.60		
MW-06	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	<0.50	<100	0.57		
(P)	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	<0.50	<250	0.41		
(P)	6/29/2011		11.01	5.53	--	5.48	2,100	<50	--	--	--	--	3.6	37	--	--	--	<0.50	--	0.03		
(P)	1/30/2012		11.01	5.89	--	5.12	710	<50	--	--	--	--	4.0	110	--	--	--	<0.50	--	0.61		
(P)	6/27/2012		11.01	5.68	--	5.33	1,200	<50	--	--	--	--	2.2	49	--	--	--	0.52	--	0.94		
(P)	12/7/2012		11.01	5.35	--	5.66	610	<50	--	--	--	--	2.4	300	--	--	--	<0.50	--	1.20		
(P)	6/6/2013		11.01	5.99	--	5.02	3,900	160	--	--	--	--	3.8	150	--	--	--	<0.50	--	1.26		
(P)	12/13/2013		11.01	6.36	--	4.65	140	<50	--	--	--	--	4.4	160	--	--	--	<0.50	--	2.76		
(P)	6/30/2014		11.01	5.94	--	5.07	300	<50	--	--	--	--	2.4	57	--	--	--	<0.50	--	0.18		

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-07	10/12/1993		7.61	6.14	--	1.47	--	<50	<0.5	<0.5	<0.5	0.7	<5.0	--	--	--	--	--	--	--	--	
MW-07	2/15/1994		7.61	5.88	--	1.73	--	78	<0.5	<0.5	<0.5	0.6	<5.0	--	--	--	--	--	--	--	4	
MW-07	5/11/1994		7.61	5.76	--	1.85	--	70	<0.5	<0.5	<0.5	0.9	12	--	--	--	--	--	--	--	9.10	
MW-07	8/1/1994		7.61	5.97	--	1.64	--	77	<0.5	<0.5	<0.5	0.5	182	--	--	--	--	--	--	--	2.50	
MW-07	10/18/1994		7.61	6.24	--	1.37	--	<50	<0.5	<0.5	<0.5	<0.5	52	--	--	--	--	--	--	--	6.30	
MW-07	1/13/1995		7.61	5.39	--	2.22	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	8.20	
MW-07	4/13/1995		7.61	5.17	--	2.44	--	63	<0.5	<0.5	<0.5	1.4	--	--	--	--	--	--	--	--	8.40	
MW-07	7/11/1995		7.61	5.25	--	2.36	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.90	
MW-07	11/2/1995		7.61	6.19	--	1.42	--	<50	<0.5	<0.5	<0.5	<1.0	55	--	--	--	--	--	--	--	8	
MW-07	2/5/1996		7.61	5.69	--	1.92	--	<50	<0.5	<1.0	<1.0	<1.0	40	--	--	--	--	--	--	--	1.90	
MW-07	4/24/1996		7.61	5.59	--	2.02	--	<250	<2.5	<5.0	<5.0	<5.0	53	--	--	--	--	--	--	--	8.20	
MW-07	7/15/1996		7.61	6.07	--	1.54	--	<250	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	7.80	
MW-07	7/30/1996		7.61	6.04	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	11/4/1996		7.61	7.76	--	-0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	11/5/1996		7.61	--	--	--	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.80	
MW-07	5/17/1997		7.61	6.42	--	1.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	8/11/1997		7.61	6.06	--	1.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	11/17/1997		7.61	9.07	--	-1.46	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.10	
MW-07	1/29/1998		7.61	7.44	--	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	6/22/1998		7.61	7.39	--	0.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	12/30/1998		7.61	5.51	--	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	3/9/1999		7.61	5.57	--	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	6/23/1999		7.61	6.69	--	0.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	9/23/1999		7.61	6.23	--	1.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	12/28/1999		7.61	6.08	--	1.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	3/22/2000		7.61	4.88	--	2.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	5/26/2000		7.61	5.42	--	2.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	9/15/2000		7.61	5.79	--	1.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	12/11/2000		7.61	5.93	--	1.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-07	3/29/2001		7.61	5.24	--	2.37	--	600	<2.5	<2.5	<2.5	<7.5	636	--	--	--	--	--	--	--	--	
MW-07	6/27/2001		7.61	5.69	--	1.92	--	590	<2.5	<2.5	<2.5	<7.5	739	--	--	--	--	--	--	--	--	
MW-07	9/19/2001		7.61	5.89	--	1.72	--	560	<5.0	<5.0	<5.0	<15	1,190	--	--	--	--	--	--	--	--	
MW-07	12/28/2001		7.61	4.53	--	3.08	--	910	23	<2.5	<2.5	<5.0	856	--	--	--	--	--	--	--	--	
MW-07	3/12/2002		7.61	4.71	--	2.9	--	620	<2.5	<2.5	<2.5	<5.0	675	--	--	--	--	--	--	--	--	
MW-07	6/13/2002		7.61	5.21	--	2.4	--	860	<2.5	<2.5	<2.5	<5.0	1,470	--	--	--	--	--	--	--	--	
MW-07	9/6/2002		7.61	5.77	--	1.84	--	350	<2.5	<2.5	<2.5	<2.5	690	--	--	--	--	--	--	--	--	
MW-07	12/13/2002		7.61	5.65	--	1.96	--	1,300	<10	<10	<10	<10	1,800	--	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-07	2/19/2003		7.61	5.07	--	2.54	--	1,700	<10	<10	<10	<10	1,600	--	--	--	--	--	--	--	--	
MW-07	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-07	8/7/2003		7.61	5.52	--	2.09	--	510	<5.0	<5.0	<5.0	<5.0	520	<200	<5.0	<5.0	<5.0	43	<1,000	--		
MW-07	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-07	4/28/2004		7.61	5.2	--	2.41	--	<250	<2.5	<2.5	<2.5	<2.5	71	880	<2.5	<2.5	<2.5	3.5	<500	--		
MW-07	8/26/2004		7.61	5.65	--	1.96	--	450	<2.5	<2.5	<2.5	<2.5	2.8	150	4,800	<0.5	<2.5	<2.5	<0.5	7.8	<500	--
MW-07	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	<1.0	1.1	<200	--		
MW-07	2/2/2005		7.61	4.92	--	2.69	--	81	<0.5	<0.5	<0.5	<0.5	31	830	<0.5	<0.5	<0.5	1.8	<100	--		
MW-07	4/25/2005		10.11	4.88	--	5.23	--	67	<0.5	<0.5	<0.5	<0.5	0.64	41	520	<0.5	<0.5	<0.5	2.1	<100	--	
MW-07	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	<0.5	1.5	<50	--		
MW-07	12/28/2005		10.11	4.93	--	5.18	--	<500	<5.0	<5.0	<5.0	<10	7.4	1,600	<5.0	<10	<5.0	--	<5.0	<1,000	--	
MW-07	3/23/2006		10.11	4.63	--	5.48	--	71	<0.5	<0.5	<0.5	<1.0	25	340	<0.5	<1.0	<0.5	1.7	<100	--		
MW-07	6/5/2006		10.11	5.08	--	5.03	--	57	<0.5	<0.5	<0.5	<1.0	14	200	<0.5	<1.0	<0.5	0.5	1.2	<100	--	
MW-07	9/19/2006		10.11	5.6	--	4.51	--	<50	<0.5	<0.5	<0.5	<1.0	14	280	<0.5	<1.0	<0.5	0.5	1.6	<250	--	
MW-07	12/1/2006		10.11	6	--	4.11	--	<250	<2.5	<2.5	<2.5	<5.0	6.7	1,400	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-07	3/1/2007		10.11	5.69	--	4.42	--	<250	<2.5	<2.5	<2.5	<5.0	4	1,000	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-07	6/1/2007		10.11	5.97	--	4.14	--	120	<0.5	<0.5	<0.5	<1.0	7.5	600	<0.5	<1.0	<0.5	0.5	0.59	<250	--	
MW-07	9/13/2007		10.11	6.31	--	3.8	--	<50	<0.5	<0.5	<0.5	<1.0	10	260	<0.5	<1.0	<0.5	<0.5	0.8	<250	--	
MW-07	11/21/2007		10.11	6.39	--	3.72	--	55	<0.5	<0.5	<0.5	<1.0	8.4	1,500	<0.5	<1.0	<0.5	<0.5	0.87	<250	--	
MW-07	2/29/2008		10.11	5.78	--	4.33	--	<50	<0.5	<0.5	<0.5	<1.0	6.2	960	<0.5	<1.0	<0.5	<0.5	0.73	<250	--	
MW-07	5/23/2008		10.11	6.27	--	3.84	--	53	<0.5	<0.5	<0.5	<1.0	9.6	300	<0.5	<1.0	<0.5	<0.5	0.96	<250	--	
MW-07	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	<1.0	<1.0	<250	--	
MW-07	12/23/2008		10.11	6.4	--	3.71	--	59	<1.0	<1.0	<1.0	<1.0	1.0	5.7	3,500	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--
MW-07	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	<1.0	<1.0	<250	--	
MW-07	5/28/2009		10.11	5.91	--	4.2	--	<50	<1.0	<1.0	<1.0	<1.0	5.7	110	<1.0	<1.0	<1.0	<1.0	<1.0	<250	1.77	
MW-07	12/10/2009		10.11	5.88	(Sheen)	4.23	--	62	<0.50	<0.50	<0.50	<1.0	6.5	1,200	<0.50	<0.50	<0.50	<0.50	0.56	<100	0.56	
MW-07	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	<0.50	<0.50	<100	0.63	
MW-07	12/30/2010		10.11	4.8	--	5.31	--	<50	<0.50	<0.50	<0.50	<1.0	5.6	3,900	<0.50	<0.50	<0.50	<0.50	0.58	<250	0.65	
MW-07	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		
MW-07	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		
MW-07	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		
MW-07	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-07	6/6/2013		10.11	5.43	--	4.68	--	<50	<0.50	<0.50	<0.50	<1.0	2.8	1,600	--	--	--	<0.50	--	1.23		
MW-07	6/14/2013		--	--	--	--	570	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-07	12/13/2013		10.11	5.84	--	4.27	<51	<50	<0.50	<0.50	<0.50	<1.0	4.4	3,100	--	--	--	<0.50	--	2.75		
MW-07	6/30/2014		10.11	5.42	--	4.69	130	<250	<2.5	<2.5	<2.5	<5.0	2.7	2,300	--	--	--	<2.5	--	0.23		

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-08	10/12/1993		8.60	5.86	--	2.74	--	<50	<0.5	<0.5	<0.5	<0.5	11	--	--	--	--	--	--	--	--	
MW-08	2/15/1994		8.60	5.5	--	3.1	--	380	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	3.30	
MW-08	5/11/1994		8.60	5.09	--	3.51	--	330	<0.5	1.2	<0.5	1.9	<5.0	--	--	--	--	--	--	--	8.50	
MW-08	8/1/1994		8.60	5.2	--	3.4	--	260	<0.5	1.2	<0.5	2.9	5.8	<5.0	--	--	--	--	--	--	2.30	
MW-08	10/18/1994		8.60	5.7	--	2.9	--	82	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	6.40	
MW-08	1/13/1995		8.60	4.96	--	3.64	--	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	6.90	
MW-08	4/13/1995		8.60	5.4	--	3.2	--	270	<0.5	<0.5	<0.5	4.4	--	--	--	--	--	--	--	--	8.40	
MW-08	7/11/1995		8.60	6.01	--	2.59	--	320	<0.5	<0.5	<0.5	3.5	--	--	--	--	--	--	--	--	8	
MW-08	11/2/1995		8.60	6.81	--	1.79	--	100	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	--	--	--	8.70	
MW-08	2/5/1996		8.60	6.12	--	2.48	--	<50	<5.0	<10	<10	<10	<100	--	--	--	--	--	--	--	1.50	
MW-08	4/24/1996		8.60	6.23	--	2.37	--	<50	<5.0	<10	<10	<10	<100	--	--	--	--	--	--	--	8.70	
MW-08	7/15/1996		8.60	6.7	--	1.9	--	<250	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	8.40	
MW-08	7/30/1996		8.60	6.64	--	1.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	11/4/1996		8.60	8.36	--	0.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	11/5/1996		8.60	--	--	--	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.20	
MW-08	5/17/1997		8.60	7.03	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	8/11/1997		8.60	6.05	--	2.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	11/17/1997		8.60	9.14	--	-0.54	--	<50	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.70	
MW-08	1/29/1998		8.60	7.9	--	0.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	6/22/1998		8.60	7.72	--	0.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	12/30/1998		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-08	3/9/1999		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-08	6/23/1999		8.60	4.7	--	3.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	9/23/1999		8.60	4.22	--	4.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	12/28/1999		8.60	4.12	--	4.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	3/22/2000		8.60	4.71	--	3.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	5/26/2000		8.60	4.98	--	3.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	9/15/2000		8.60	4.62	--	3.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	12/11/2000		8.60	4.77	--	3.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-08	3/29/2001		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-08	6/27/2001		8.60	5.11	--	3.49	--	570	<2.5	<2.5	2.6	<7.5	3.4	--	--	--	--	--	--	--	--	
MW-08	9/19/2001		8.60	5	--	3.6	--	<500	<5.0	<5.0	<5.0	<15	<5.0	--	--	--	--	--	--	--	--	
MW-08	12/28/2001		8.60	4.15	--	4.45	--	440	<0.5	<0.5	0.98	<1.0	6.3	--	--	--	--	--	--	--	--	
MW-08	3/12/2002		8.60	4.35	--	4.25	--	330	<2.5	<2.5	<2.5	<5.0	8.7	--	--	--	--	--	--	--	--	
MW-08	6/13/2002		8.60	5.09	--	3.51	--	<500	<5.0	<5.0	<5.0	<10	16	--	--	--	--	--	--	--	--	
MW-08	9/6/2002		8.60	5.18	--	3.42	--	98	<0.5	<0.5	<0.5	<0.5	76	--	--	--	--	--	--	--	--	
MW-08	12/13/2002		8.60	4.84	--	3.76	--	120	<0.5	<0.5	0.94	0.52	140	--	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-08	2/19/2003		8.60	4.45	--	4.15	--	<2,500	<25	<25	<25	<25	800	--	--	--	--	--	--	--	--	
MW-08	6/6/2003		8.60	5	--	3.6	--	<50,000	<500	<500	<500	<500	17,000	<20,000	--	<500	<500	--	<500	<100,000	--	
MW-08	8/7/2003		8.60	4.84	--	3.76	--	<2,500	<25	<25	<25	<25	2,400	<1,000	<25	<25	<25	44	<5,000	--		
MW-08	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-08	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	<2.5	<2.5	<500	--	
MW-08	8/26/2004		8.60	4.73	--	3.87	--	<2,500	<25	<25	<25	<25	170	47,000	<25	<25	<25	<25	<25	--	--	
MW-08	12/1/2004		8.60	4.8	--	3.8	--	<250	<2.5	<2.5	<2.5	<2.5	36	9,700	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-08	2/2/2005		8.60	4.5	--	4.10	--	810	<0.5	<0.5	<0.5	<0.5	41	<20	<0.5	0.72	<0.5	0.64	<100	--		
MW-08	4/25/2005		11.08	4.99	--	6.09	--	1,400	<12	<12	<12	<12	32	45,000	<12	<12	<12	<12	<12	<2,500	--	
MW-08	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	<5.0	<5.0	<500	--	
MW-08	12/28/2005		11.08	4.81	--	6.27	--	<250	<2.5	<2.5	<2.5	<5.0	17	7,400	<2.5	<5.0	<2.5	--	<2.5	<500	--	
MW-08	3/23/2006		11.08	4.22	--	6.86	--	660	<2.5	<2.5	<2.5	<5.0	21	11,000	<2.5	<5.0	<2.5	<2.5	<2.5	<500	--	
MW-08	6/5/2006		11.08	4.63	--	6.45	--	<2,500	<25	<25	<25	<50	30	34,000	<25	<50	<25	<25	<25	<5,000	--	
MW-08	9/19/2006		11.08	4.82	--	6.26	--	<500	<5.0	<5.0	<5.0	<10	17	7,500	<5.0	<10	<5.0	<5.0	<5.0	<2,500	--	
MW-08	12/1/2006		11.08	4.83	--	6.25	--	350	<2.5	<2.5	<2.5	<5.0	16	1,900	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-08	3/1/2007		11.08	4.43	--	6.65	--	<500	<5.0	<5.0	<5.0	<10	20	6,200	<5.0	<10	<5.0	<5.0	<5.0	<2,500	--	
MW-08	6/1/2007		11.08	4.74	--	6.34	--	<500	<5.0	<5.0	<5.0	<10	8.7	3,700	<5.0	<10	<5.0	<5.0	<5.0	<2,500	--	
MW-08	9/13/2007		11.08	5.25	--	5.83	--	230	<0.5	<0.5	<0.5	<1.0	9.4	630	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-08	11/21/2007		11.08	5.13	--	5.95	--	350	<0.5	<0.5	<0.5	<1.0	8.7	360	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-08	2/29/2008		11.08	4.75	--	6.33	--	<1,000	<10	<10	<10	<20	16	7,500	<10	<20	<10	<10	<10	<5,000	--	
MW-08	5/23/2008		11.08	5.01	--	6.07	--	<1,000	<10	<10	<10	<20	15	4,800	<10	<20	<10	<10	<10	<5,000	--	
MW-08	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	<1.0	<1.0	<250	--	
MW-08	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	<1.0	<1.0	<250	--	
MW-08	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	<1.0	<1.0	<250	--	
MW-08	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	<1.0	<1.0	<250	2.14	
MW-08	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	<0.50	<0.50	<100	0.47	
MW-08	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	<0.50	<0.50	<100	0.38	
MW-08	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	<0.50	<0.50	<250	0.52	
MW-08	6/29/2011		11.08	4.57	--	6.51	1,000	140	--	--	--	--	4.7	2,000	--	--	--	--	<0.50	--	0.62	
MW-08	1/30/2012		11.08	4.63	--	6.45	1,500	240	--	--	--	--	3.8	250	--	--	--	--	<0.50	--	1.52	
MW-08	6/27/2012		11.08	4.49	--	6.59	1,100	300	--	--	--	--	2.2	270	--	--	--	--	<0.50	--	1.09	
MW-08	12/7/2012		11.08	3.99	--	7.09	800	210	--	--	--	--	1.2	31	--	--	--	--	<0.50	--	1.37	
MW-08	6/6/2013		11.08	4.43	--	6.65	830	200	--	--	--	--	0.50	5.7	--	--	--	--	<0.50	--	1.09	
MW-08	12/13/2013		11.08	4.42	--	6.66	100	270	--	--	--	--	<0.50	<10	--	--	--	--	<0.50	--	2.86	
MW-08	6/30/2014		11.08	4.18	--	6.90	<55	150	--	--	--	--	<0.50	<20	--	--	--	--	<0.50	--	0.20	

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Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-09	10/12/1993		8.08	5.66	0.08	2.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	2/15/1994		8.08	5.32	0.05	2.7975	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	5/11/1994		8.08	5.57	--	2.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	8/1/1994		8.08	6.25	--	1.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	10/18/1994		8.08	5.59	0.13	2.5875	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	1/13/1995		8.08	4.42	0.14	3.765	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	4/13/1995		8.08	4.06	0.11	4.1025	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	7/11/1995		8.08	4.21	0.08	3.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	11/2/1995		8.08	5.22	0.05	2.8975	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	2/5/1996		8.08	4.76	0.01	3.3275	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	4/24/1996		8.08	4.62	0.09	3.5275	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	7/15/1996		8.08	5.11	0.04	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	7/30/1996		8.08	5.15	--	2.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	11/4/1996		8.08	6.75	0.01	1.3375	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	5/17/1997	Dup	8.08	5.42	--	2.66	--	97,000	16,000	8,200	2,300	17,300	39,000	--	--	--	--	--	--	7.00	(Dup)	
MW-09	8/11/1997	Dup	8.08	5.37	--	2.71	--	100,000	14,000	360	3,200	5,790	27,000	--	--	--	--	--	--	9.10	(Dup)	
MW-09	11/17/1997	Dup	8.08	5.62	(SHEEN)	2.46	--	100,000	24,000	5,300	3,500	19,300	35,000	--	--	--	--	--	--	8.30	(Dup)(Sheen)	
MW-09	1/29/1998	Dup	8.08	4.07	(SHEEN)	4.01	--	250,000	20,000	20,000	3,100	18,400	110,000	--	--	--	--	--	--	6.60	(Dup)(Sheen)	
MW-09	6/22/1998	Dup	8.08	4.28	--	3.8	--	290,000	20,000	17,000	3,800	21,200	110,000	--	--	--	--	--	--	5.80	(Dup)	
MW-09	12/30/1998		8.08	4.95	--	3.13	--	150,000	10,000	3,800	2,000	9,600	86,000	--	--	--	--	--	--	--	--	
MW-09	3/9/1999		8.08	3.95	--	4.13	--	82,000	6,800	570	1,400	4,700	100,000	--	--	--	--	--	--	--	--	
MW-09	6/23/1999		8.08	5.12	--	2.96	--	41,000	11,000	820	2,300	5,200	92,000	--	--	--	--	--	--	--	--	
MW-09	9/23/1999		8.08	4.74	--	3.34	--	57,000	12,000	5,400	1,900	9,500	89,000	--	--	--	--	--	--	--	--	
MW-09	12/28/1999		8.08	4.58	--	3.5	--	46,000	15,000	490	2,500	3,500	100,000	--	--	--	--	--	--	--	--	
MW-09	3/22/2000		8.08	3.9	--	4.18	--	86,000	18,000	1,800	2,300	6,800	120,000	--	--	--	--	--	--	--	--	
MW-09	5/26/2000		8.08	4.15	--	3.93	--	82,000	17,000	680	1,800	3,800	100,000	--	--	--	--	--	--	--	--	
MW-09	9/6/2000		8.08	4.47	--	3.61	--	100,000	19,000	280	2,400	6,400	84,000	--	--	--	--	--	--	--	--	
MW-09	9/15/2000		8.08	4.34	--	3.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	12/11/2000		8.08	4.41	--	3.67	--	110,000	14,400	768	2,610	6,670	123,000	--	--	--	--	--	--	--	--	
MW-09	3/29/2001		8.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)	
MW-09	6/26/2001		8.08	5.03	0.13	3.1475	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	9/19/2001		8.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-09	12/28/2001		8.08	3.73	--	4.35	--	110,000	15,000	1,500	2,280	5,530	60,900	--	--	--	--	--	--	--	--	
MW-09	3/12/2002		8.08	4.93	--	3.15	--	88,000	12,500	2,600	2,800	8,950	44,000	--	--	--	--	--	--	--	--	
MW-09	6/13/2002		8.08	4.13	--	3.95	--	59,000	9,870	161	2,560	5,560	35,600	--	--	--	--	--	--	--	--	
MW-09	9/6/2002		8.08	4.39	--	3.69	--	47,000	10,000	<100	2,100	4,600	31,000	--	--	--	--	--	--	--	--	
MW-09	12/13/2002		8.08	3.97	--	4.11	--	57,000	11,000	1,000	2,300	5,800	28,000	--	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-09	2/19/2003		8.08	3.25	--	4.83	--	76,000	10,000	2,100	3,000	8,900	11,000	--	--	--	--	--	--	--	--	
MW-09	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-09	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	<250	<250	350	<50,000	--	
MW-09	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-09	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	<120	<120	170	<25,000	--	
MW-09	8/26/2004		8.08	3.61	--	4.47	--	35,000	3,700	500	1,300	5,300	6,500	2,600	<50	<50	<50	<50	140	--	--	
MW-09	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	<250	<50,000	--		
MW-09	2/2/2005		8.08	3.71	(Sheen)	4.37	--	21,000	1,800	130	670	2,000	3,600	5,600	<50	<50	<50	<50	88	<10,000	--	
MW-09	4/25/2005		10.55	3.31	(Sheen)	7.24	--	5,900	190	<5.0	120	77	540	1,400	<5.0	<5.0	<5.0	<5.0	14	<1,000	--	
MW-09	9/30/2005		10.55	4.02	--	6.53	--	26,000	2,400	360	1,600	4,200	2,400	520	<20	<20	<20	<20	61	<2,000	--	
MW-09	12/28/2005		10.55	2.99	--	7.56	--	14,000	1,400	22	350	450	2,200	1,800	<10	<20	<10	--	49	<2,000	--	
MW-09	3/23/2006		10.55	2.5	--	8.05	--	4,100	250	<10	130	110	330	2,400	<10	<20	<10	<10	<10	<2,000	--	
MW-09	6/5/2006		10.55	3.34	--	7.21	--	8,200	2,200	79	500	1,200	1,800	1,100	<13	<25	<13	<13	75	<2,500	--	
MW-09	9/19/2006		10.55	4.06	--	6.49	--	9,000	2,600	15	440	370	3,100	3,900	<13	<25	<13	<13	100	<6,300	--	
MW-09	12/1/2006		10.55	3.88	--	6.67	--	5,400	1,600	15	310	140	1,400	2,400	<13	<25	<13	<13	46	<6,300	--	
MW-09	3/1/2007		10.55	2.79	--	7.76	--	6,300	250	<13	270	75	240	580	<13	<25	<13	<13	<13	<6,300	--	
MW-09	6/1/2007		10.55	3.53	--	7.02	--	6,500	980	16	250	95	1,800	2,300	<13	<25	<13	<13	50	<6,300	--	
MW-09	9/13/2007		10.55	4.78	--	5.77	--	4,500	170	14	79	27	640	7,300	<13	<25	<13	<13	28	<6,300	--	
MW-09	11/21/2007		10.55	4.41	--	6.14	--	4,600	790	<13	97	34	2,000	3,500	<13	<25	<13	<13	42	<6,300	--	
MW-09	2/29/2008		10.55	3.41	--	7.14	--	6,800	700	19	250	98	1,100	2,400	<13	<25	<13	<13	35	<6,300	--	
MW-09	5/23/2008		10.55	4.53	--	6.02	--	5,300	390	22	130	68	1,200	6,800	<12	<25	<12	<12	33	<6,200	--	
MW-09	9/26/2008		10.55	5.07	--	5.48	--	10,000	94	11	26	35	280	12,000	<1.0	<1.0	<1.0	<1.0	6.2	<250	--	
MW-09	12/23/2008		10.55	4.04	--	6.51	--	2,600	420	7.9	110	84	870	1,000	<1.0	<1.0	<1.0	<1.0	23	<250	--	
MW-09	3/9/2009		10.55	3.45	--	7.1	--	3,400	45	2.2	51	18	180	610	<1.0	<1.0	<1.0	<1.0	4	<250	--	
MW-09	5/28/2009		10.55	4.17	--	6.38	--	4,400	420	14	270	170	720	840	<1.0	<1.0	<1.0	<1.0	21	<250	0.94	
MW-09	12/10/2009		10.55	4.11	(Sheen)	6.44	--	4,400	240	7.9	17	19	780	4,200	<2.5	<2.5	<2.5	<2.5	15	<500	--	
MW-09	6/29/2010		10.55	4.3	--	6.25	--	4,200	680	15	110	130	1,200	4,200	<10	<10	<10	<10	30	<2,000	0.37	
MW-09	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	<0.50	29	0.79	(P)	
MW-09	6/29/2011		10.55	3.72	--	6.83	--	4,700	600	13	370	120	900	960	--	--	--	--	29	--	0.48	
MW-09	1/30/2012		10.55	4.09	--	6.46	--	2,300	210	5.1	10	20	630	1,600	--	--	--	--	20	--	0.75	
MW-09	6/27/2012		10.55	3.51	--	7.04	--	810	78	<2.5	4.6	7.9	130	160	--	--	--	--	4.9	--	1.43	
MW-09	12/7/2012		10.55	3.38	--	7.17	--	2,000	130	5.1	6.1	11	250	340	--	--	--	--	9.6	--	1.04	
MW-09	6/6/2013		10.55	4.3	--	6.25	--	3,400	480	14	8.9	15	680	2,200	--	--	--	--	33	--	1.12	
MW-09	12/13/2013		10.55	4.6	--	5.95	--	1,600	110	6.4	4.2	<5.0	220	2,500	--	--	--	--	7.7	--	2.91	
MW-09	6/30/2014		10.55	4.25	--	6.30	--	2,500	170	12	4.0	10	370	3,800	--	--	--	--	13	--	0.47	

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
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	<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	<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	<0.5	<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	<0.5	<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	<0.5	<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	<0.5	<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	<0.5	<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	<0.5	<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	<0.5	<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	<0.5	<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	<0.5	<1.0	<0.5	<0.5	<250	--		
MW-10	2/29/2008		12.53	8.2	--	4.33	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<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	<0.5	<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	<1.0	<250	--		
MW-10	12/23/2008		12.53	8.6	--	3.93	--	<50	<1.0	<1.0	<1.0	<1.0	2.7	<5.0	<1.0	<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	<5.0	<1.0	<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	<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	<0.50	<100	1.81		
MW-10	6/29/2010		12.53	8.43	--	4.1	--	<50	<0.50	<0.50	<0.50	<1.0	1.6	<4.0	<0.50	<0.50	<0.50	<0.50	<100	1	(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	<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	--	5.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
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	--	--	--	--	--	--	1.34		
MW-10	12/13/2013		12.53	8.10	--	4.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)	
MW-10	6/30/2014		12.53	7.87	--	4.66	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	1.17	

Table 2
Historical Groundwater Monitoring and Analytical Results
CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-11	4/25/2005		14.55	9.29	--	5.26	--	<50	<0.5	<0.5	<0.5	<0.5	<20	<0.5	<0.5	<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	<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	<0.5	<1.0	<0.5	<0.5	--	<100	--	
MW-11	3/23/2006		14.55	8.75	--	5.8	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<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	<0.5	<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	<0.5	<1.0	<0.5	<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	<0.5	<1.0	<0.5	<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	<0.5	<1.0	<0.5	<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	<0.5	<1.0	<0.5	<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	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-11	11/21/2007		14.55	10.64	--	3.91	--	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<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	<0.5	<1.0	<0.5	<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	<0.5	<1.0	<0.5	<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	<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	<1.0	<1.0	<250	--	
MW-11	3/9/2009		14.55	9.5	--	5.05	--	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-11	5/28/2009		14.55	10.4	--	4.15	--	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<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	<5.0	<0.50	<1.0	<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	<0.50	<0.50	<100	0.47	
MW-11	12/30/2010		14.55	9.22	--	5.33	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<250	0.63	
MW-11	6/29/2011		14.55	9.40	--	5.15	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	0.75		
MW-11	1/30/2012		14.55	9.49	--	5.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-11	6/27/2012		14.55	9.70	--	4.85	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	1.13		
MW-11	12/7/2012		14.55	8.85	--	5.7	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)		
MW-11	6/6/2013		14.55	10.03	--	4.52	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	1.62		
MW-11	12/13/2013		14.55	10.25	--	4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)		
MW-11	6/30/2014		14.55	10.12	--	4.43	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	1.45		

Table 2
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CA-11126
1700 Powell St, Emeryville, CA 94608

Well ID	Date	Type	TOC (ft)	DTW (ft)	Measured LNAPL Thickness	GW Elev (ft)	DRO (µg/L)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
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Notes:

ft = feet

TOC = Top of casing (surveyed)

DTW = Depth to water

LNAPL = Light non-aqueous phase liquid

GW Elev = Calculated groundwater elevation; adjusted assuming a specific gravity of 0.75 for SPH when present.

DRO = Diesel range organics

GRO = Gasoline range organics

ORO = Motor oil range organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes, total

MTBE = Methyl tert-butyl ether

TBA = Tert-butyl alcohol

1,2-DCA = 1,2-Dichloroethane

DIPE = Diisopropyl ether

ETBE = Ethyl tert-butyl ether

EDB = Ethylene dibromide

TAME = Tert-amyl methyl ether

DO = Dissolved oxygen; rounded to the nearest tenth

VOCs = Volatile organic compounds

SPH = Separate phase hydrocarbons

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

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 = Well not sampled this event in accordance with groundwater sampling schedule.

1. Post-May 2005 TOC and groundwater elevations surveyed relative to an established benchmark with an elevation of 8.11 feet above mean sea level. Wells were resurveyed to the North American Vertical Datum of 1988 (NAVD '88) in May 2005.

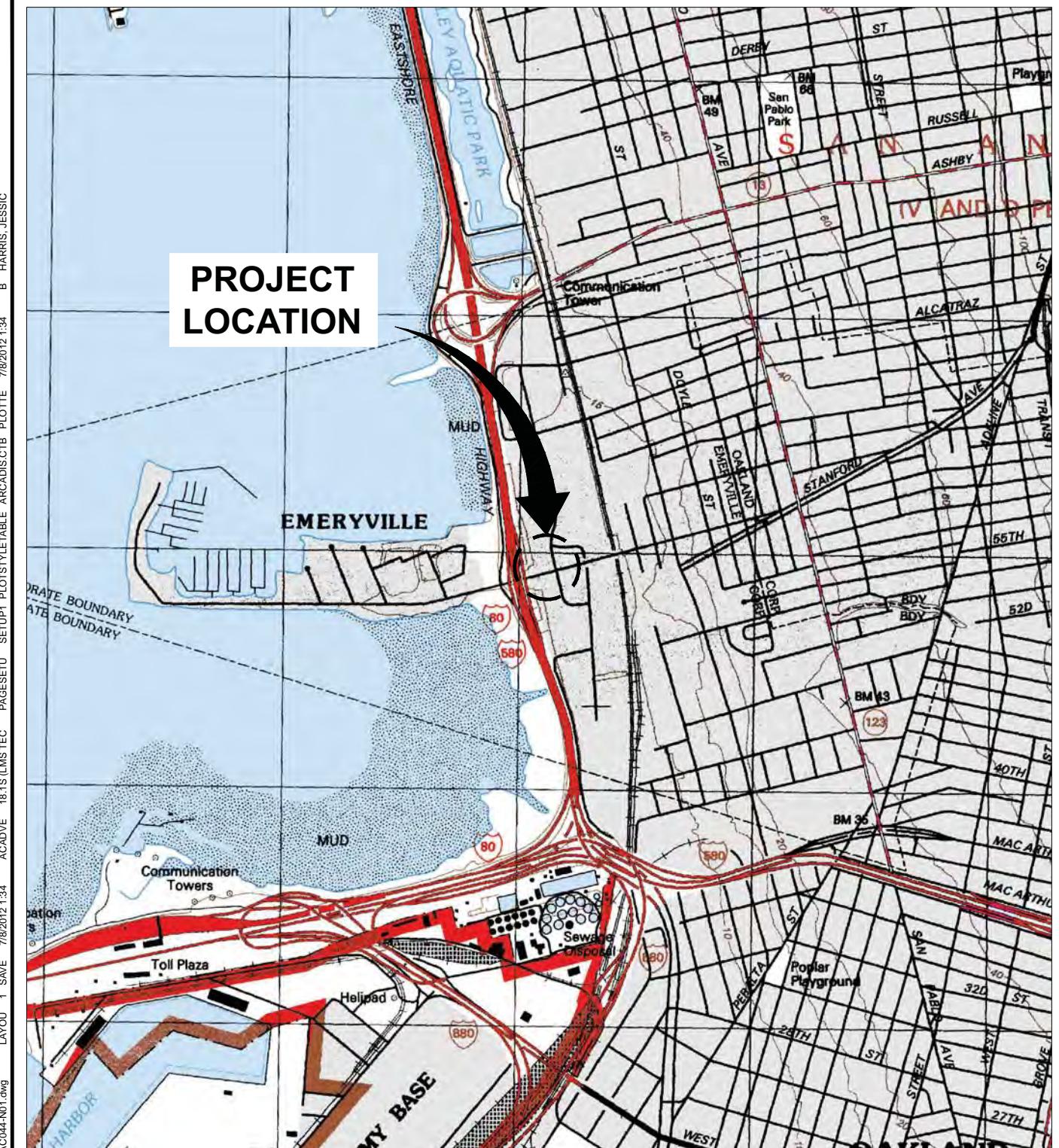
2. All TOC and groundwater elevations starting in May 2005 are listed with respect to NAVD '88

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

4. 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

0 2000' 4000'
Approximate Scale: 1 in. = 200



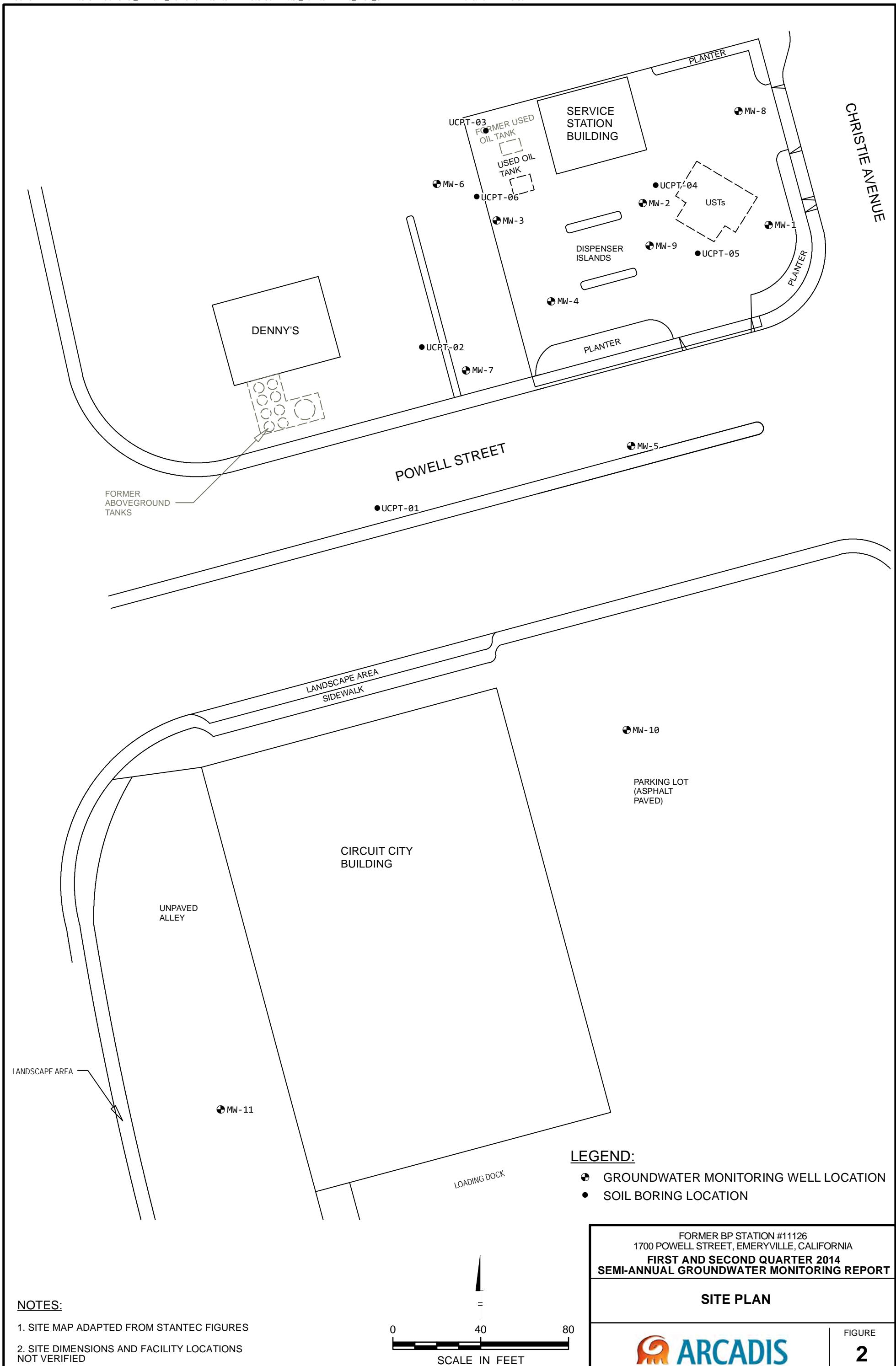
FORMER BP STATION #11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

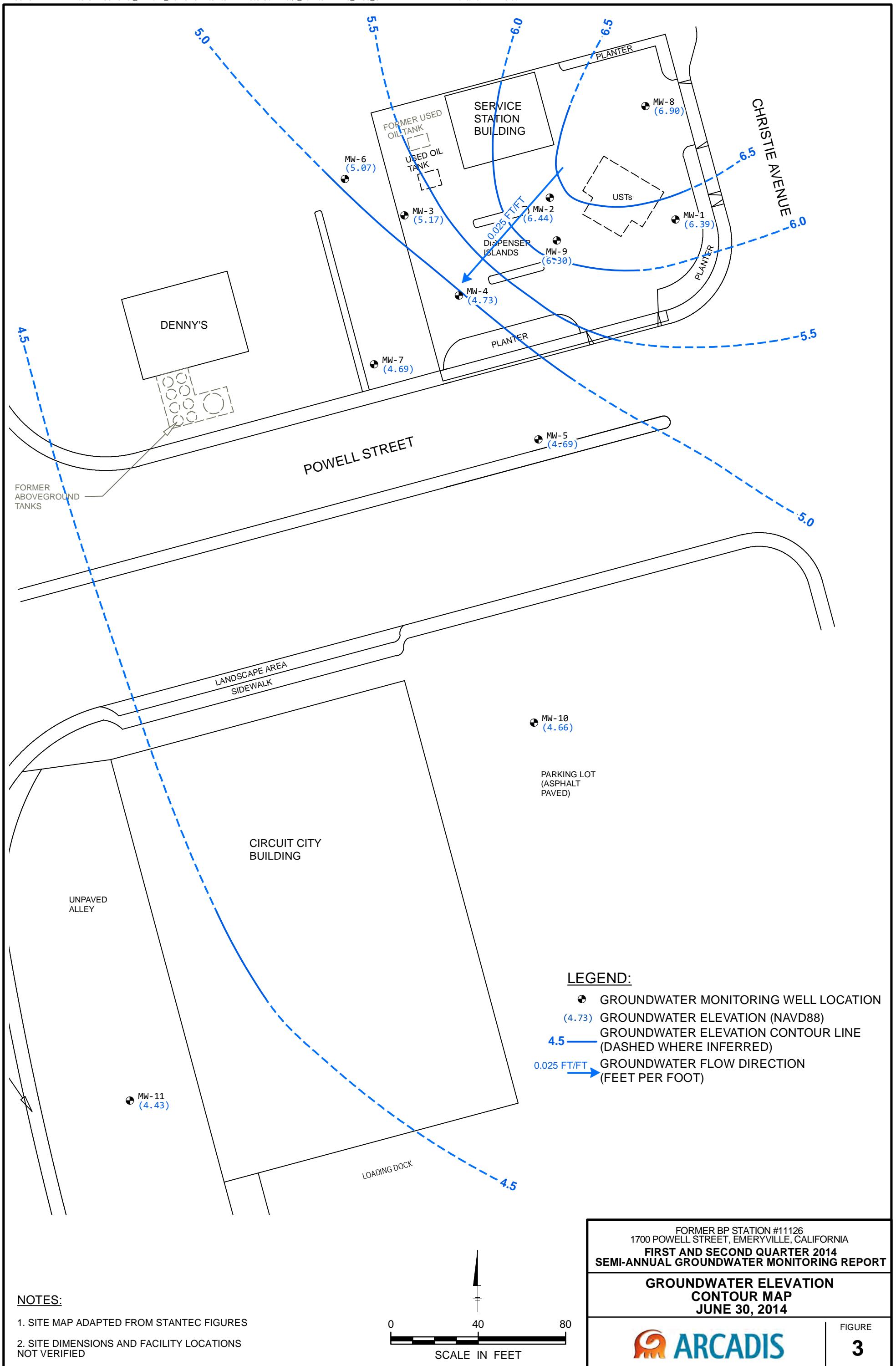
SITE VICINITY MAP

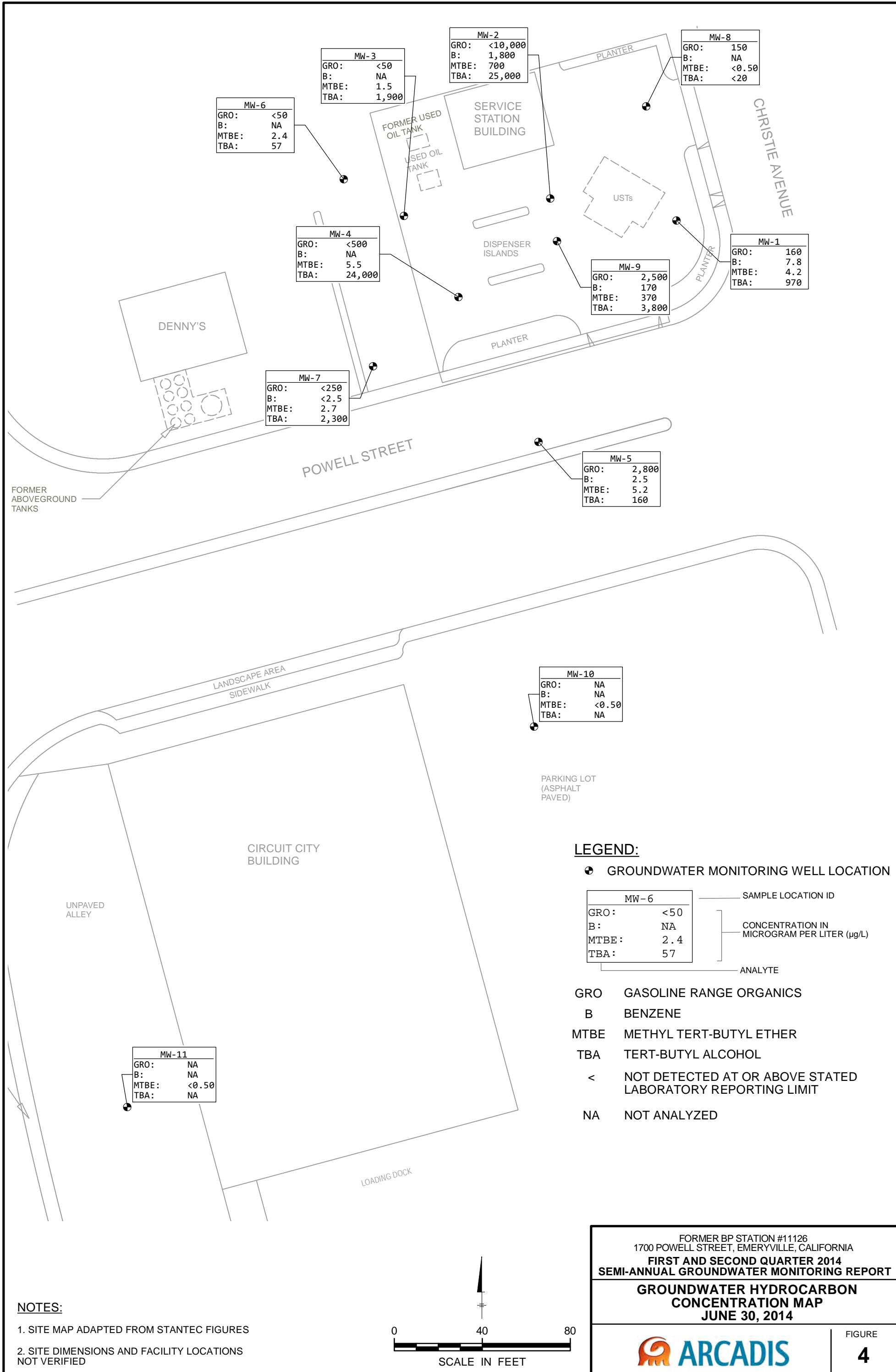
 ARCADIS

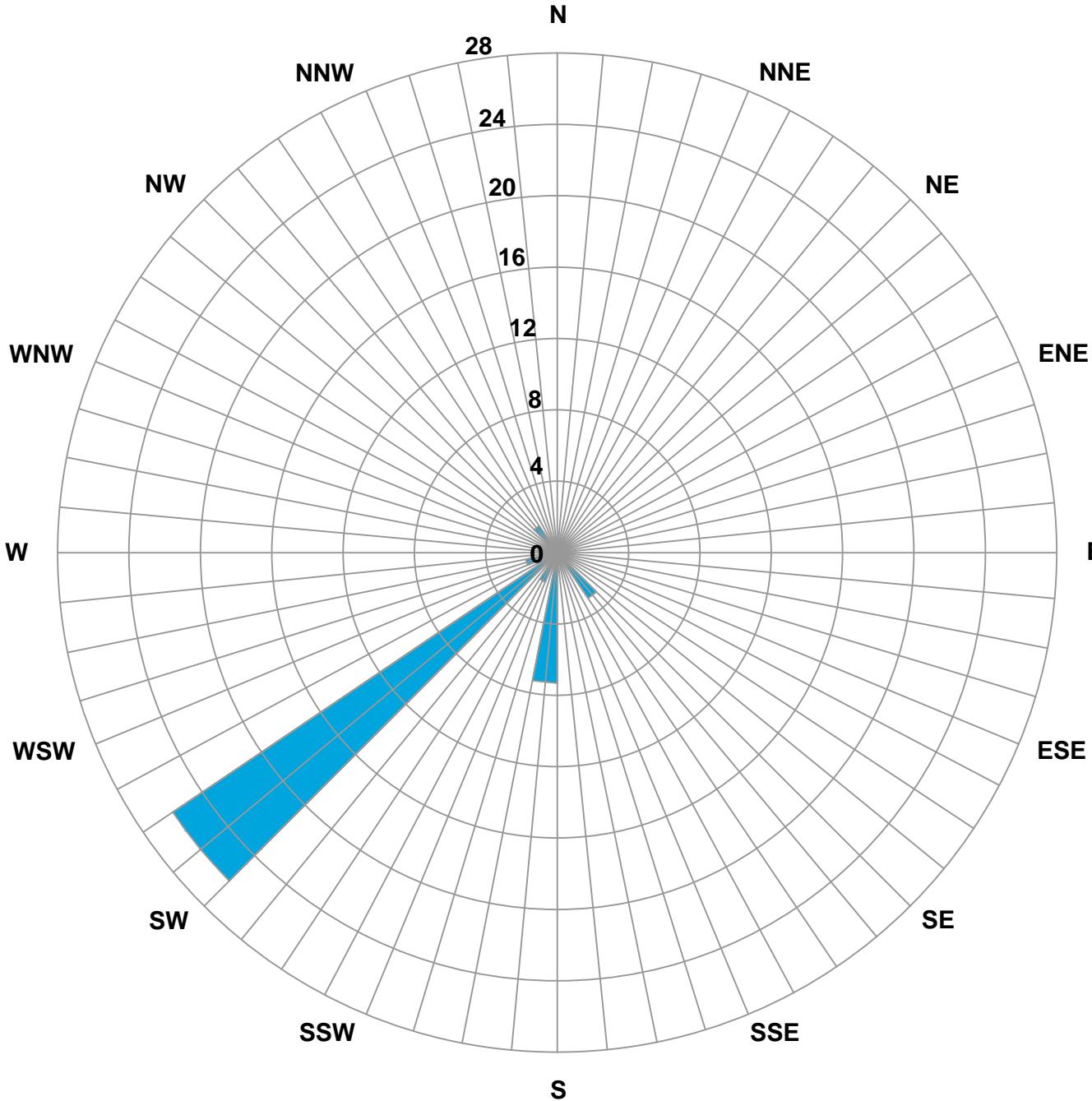
FIGURE

1









LEGEND

CONCENTRIC CIRCLES REPRESENT 45 MONITORING EVENTS CONDUCTED BETWEEN THE FIRST QUARTER 2001 AND THE SECOND QUARTER 2014.

■ GROUNDWATER FLOW DIRECTION

FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA
**FIRST AND SECOND QUARTER 2014
SEMI-ANNUAL GROUNDWATER MONITORING REPORT**

**GROUNDWATER FLOW DIRECTION
ROSE DIAGRAM**





Appendix A

Previous Investigations and Site
History Summary

Former BP Station No. 11126

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 ($\mu\text{g}/\text{L}$), with the highest detections in the vicinity of the pump islands and east of the USTs (TES 1989; SECOR 2007).

Former BP Station No. 11126

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).

Former BP Station No. 11126

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-dichlorethane (1,2-DCE) (EMCON 1994). EMCON personnel returned to the site on December 5, 1994 to inspect the fuel dispensers for the presence of spill containment boxes, and for indications of leakage (EMCON 1994). Grab soil samples collected from beneath the fuel dispensers (TD-1, TD-2, TD-3 and TD-4) also contained detectable concentrations of TPHg and TPHd (SECOR 2007).

In 1999, SECOR observed the removal of one 550-gallon, fiberglass, waste oil UST, along with a clarifier and two hoists (Hoist No. 1 and Hoist No. 2) from the former service bays as part of site remodeling activities on April 28, 1999 (SECOR 1999). The waste oil UST and Hoist No. 2, were removed from two separate excavations, and the clarifier and Hoist No. 1 were removed from one excavation. One soil sample collected from the waste oil UST excavation contained detectable concentrations of TPHd, TPHg, benzene, and total petroleum hydrocarbons as motor oil (TPHo). A grab groundwater sample collected from 7.5 ft bgs from the waste oil UST excavation contained detectable concentrations of TPHd, TPHo, benzene, and methyl tertiary butyl ether (MTBE). Soil samples collected from beneath the former clarifier (4 ft bgs), former Hoist No. 1 (8 ft bgs), and the former Hoist No. 2 (8 ft bgs) also contained detectable concentrations of TPHg, TPHd, TPHo, benzene, and lead. 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

Former BP Station No. 11126

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 $\mu\text{g/L}$), 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

Former BP Station No. 11126

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 HydropunchTM 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

Former BP Station No. 11126

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.

**Appendix A
Previous Investigation
and Site History
Summary**

Former BP Station No. 11126

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



DAILY REPORT

Page 1 of 1

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

Field Representative(s): Alex Martinez Day: Mondary Date: 6/30/14

Time Onsite: From: 0640 To: 1300; From: _____ To: _____; From: _____ To: _____

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

Weather: Sunny

Equipment In Use: Peri pump, H₂O meter, USL meter

Visitors: None

TIME:	WORK DESCRIPTION:
0640	Arrived onsite
0645	Began gaging of wells around site
0800	Set up Mw-11
0835	Set up @ Mw-10
0905	Set up Mw-3
0930	Set up Mw-6
0955	Set up @ Mw-7
1025	Set up Mw-4. Statewide arrived onsite
1050	Set up Mw-5
1115	Set up Mw-1
1140	Set up Mw-4
1205	Set up Mw-8
1300	offsite
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Signature: Alex Martinez



GROUNDWATER MONITORING SITE SHEET

Page 1 of 12Project: Arcadis 11126Project No.: 09-88-662 Date: 6/30/14Field Representative: AMElevation: 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				0702	1	-	3.77	11.55	
Mw-2	11				0748	1	-	4.95	12.83	Hydrocarbon odor
Mw-3	3				0746	1	-	5.56	11.64	
Mw-4	6				0754	1	-	5.85	11.04	
Mw-5	7				1051	1	-	5.49	12.51	Gauged once traffic control arrived.
Mw-6	4				0730	1	-	5.94	11.90	Foul (sewage) odor
Mw-7	5				0725	1	-	5.42	13.46	
Mw-8	10				0655	1	-	4.18	13.90	
Mw-9	9				0717	1	-	4.75	14.17	Lt. hydrocarbon color
Mw-10	2				0758	1	-	7.87	17.05	
Mw-11	1				0802	1	-	10.12	16.90	

* 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: Asf

Revision: 8/19/11


GROUNDWATER SAMPLING DATA SHEET

 Page 2 of 12

Project: Arcadis 1126 Project No.: 09-88-667 Date: 6/30/14
 Field Representative: AM Start Time: - End Time: - Total Time (minutes): -
 Well ID: MW-1

PURGE EQUIPMENT		<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell				
<input checked="" type="checkbox"/> Disp. Tubing		<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:				
WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments: <input checked="" type="checkbox"/> Good Improvement Needed (<i>circle one</i>)								
PURGING/SAMPLING METHOD		Predetermined Well Volume	<input checked="" type="checkbox"/> Low-Flow	Other: (<i>circle one</i>)				
PREDETERMINED WELL VOLUME		<div style="text-align: center;"> </div>						
Casing Diameter Unit Volume (gal/ft) (<i>circle one</i>)		LOW-FLOW Previous Low-Flow Purge Rate: <u>11.25</u> (lpm) Total Well Depth (a): <u>3.77</u> (ft) Initial Depth to Water (b): <u>3.77</u> (ft) $\text{Pump In-take Depth} = b + (a-b)/2$: <u>7.66</u> (ft) $\text{Maximum Allowable Drawdown} = (a-b)/8$: <u>0.97</u> (ft) Low-Flow Purge Rate: <u>0.25</u> (Lpm)* Comments: _____						
1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other:								
4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()								
Total Well Depth (a): _____ (ft)								
Initial Depth to Water (b): _____ (ft)								
Water Column Height (WCH) = (a - b): _____ (ft)								
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)								
Three Casing Volumes = WCV x 3: _____ (gal)								
Five Casing Volumes = WCV x 5: _____ (gal)								
Pump Depth (if pump used): _____ (ft)								
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal on 6	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1124	0.0	25.93	6.87	0.751	0.23	5	18.5	
1126	0.5	25.84	7.04	0.755	0.24	-88	12.6	
1128	1.0	25.03	7.04	0.761	0.24	-114	17.4	
1130	1.5	24.77	7.02	0.765	0.23	-137	0.0	
1132	2.0	24.77	6.99	0.779	0.23	-142	4.4	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD			<input checked="" type="checkbox"/> Low Flow & Parameters Stable			<input type="checkbox"/> 3 Casing Volumes & Parameters Stable	<input type="checkbox"/> 5 Casing Volumes	
Other: _____								

SAMPLE COLLECTION RECORD				GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>4.75</u> (ft)				Parameter	Time	Measurement
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing				DO (mg/L)		
<input checked="" type="checkbox"/> Disp. Pump Tubing Other: _____				Ferrous Iron (mg/L)		
Sample ID: <u>MW-1</u>	Sample Collection Time: <u>1135</u> (24:00)			Redox Potential (mV)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved)	Liter Amber			Alkalinity (mg/L)		
Other: _____	Other: _____			Other: _____		
Other: _____	Other: _____			Other: _____		

 Signature: Jeff Morris

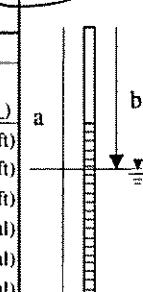
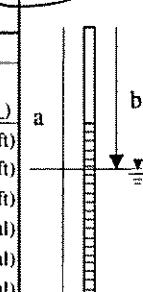
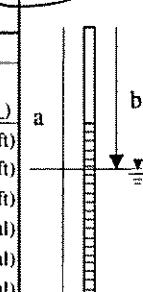
Revision: 3/15/2013



GROUNDWATER SAMPLING DATA SHEET

Page 3 of 12

Project: Arcadis 11126 Project No.: 09-58-662 Date: 6/30/14
 Field Representative: AM
 Well ID: Mw-2 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT		Disp. Bailer	120V Pump	<input checked="" type="checkbox"/> Flow Cell												
<input checked="" type="checkbox"/> Disp. Tubing		12V Pump	<input type="checkbox"/> Peristaltic Pump	Other/ID#:												
WELL HEAD INTEGRITY (cap, lock, vault, etc.) <input checked="" type="checkbox"/> Improvement Needed (circle one)		Comments: <u>Belts missing</u>														
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow	Other: (circle one)												
PREDETERMINED WELL VOLUME		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Casing Diameter Unit Volume (gal/ft) (circle one)</td> <td style="width: 50%; text-align: center;">  </td> </tr> <tr> <td>1" (0.04)</td> <td>1.25" (0.08)</td> </tr> <tr> <td>4" (0.66)</td> <td>6" (1.50)</td> </tr> <tr> <td>2" (0.17)</td> <td>8" (2.60)</td> </tr> <tr> <td>3" (0.38)</td> <td>12" (5.81)</td> </tr> <tr> <td>Other: _____</td> <td>_____ _____</td> </tr> </table>			Casing Diameter Unit Volume (gal/ft) (circle one)		1" (0.04)	1.25" (0.08)	4" (0.66)	6" (1.50)	2" (0.17)	8" (2.60)	3" (0.38)	12" (5.81)	Other: _____	_____ _____
Casing Diameter Unit Volume (gal/ft) (circle one)																
1" (0.04)	1.25" (0.08)															
4" (0.66)	6" (1.50)															
2" (0.17)	8" (2.60)															
3" (0.38)	12" (5.81)															
Other: _____	_____ _____															
Total Well Depth (a): _____ (ft)		Previous Low-Flow Purge Rate: <u>12.53</u> (lpm)														
Initial Depth to Water (b): _____ (ft)		Total Well Depth (a): <u>4.95</u> (ft)														
Water Column Height (WCH) = (a - b): _____ (ft)		Initial Depth to Water (b): <u>8.79</u> (ft)														
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)		Pump In-take Depth = b + (a-b)/2: <u>0.88</u> (ft)														
Three Casing Volumes = WCV x 3: _____ (gal)		Maximum Allowable Drawdown = (a-b)/8: <u>0.25</u> (lpm)*														
Five Casing Volumes = WCV x 5: _____ (gal)		Comments: _____														
Pump Depth (if pump used): _____ (ft)		*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.														

GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal or	Temperature °C	pH	Conductivity μS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1234	0.0	29.54	6.67	1.34	2.22	-77	0.0	
1236	0.5	29.47	6.71	1.37	1.11	-117	0.0	
1238	1.0	27.52	6.73	1.40	0.75	-140	0.0	
1240	1.5	26.85	6.73	1.42	0.65	-153	0.0	
1242	2.0	26.75	6.72	1.42	0.57	-158	0.0	

Previous Stabilized Parameters

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

SAMPLE COLLECTION RECORD		GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>5.10</u> (ft)	Parameter			Time
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing <input checked="" type="checkbox"/> Disp. Pump Tubing Other: _____	DO (mg/L)			Measurement
Sample ID: <u>Mw-2</u> Sample Collection Time: <u>1245</u> (24:00)	Ferrous Iron (mg/L)			
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____	Redox Potential (mV)			
	Alkalinity (mg/L)			
	Other:			
	Other:			

Signature: Allyson

Revision: 3/15/2013


GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/30/14
 Field Representative: AM
 Well ID: MW-3 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	Disp. Bailer	120V Pump	Flow Cell
<input checked="" type="checkbox"/> Disp. Tubing	12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments:	
<input checked="" type="checkbox"/> Good	Improvement Needed	(circle one)	
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow Other: (circle one)
PREDETERMINED WELL VOLUME			
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)			
<u>11.64</u> (ft)			
Total Well Depth (a):			
<u>5.56</u> (ft)			
Initial Depth to Water (b):			
<u>3.60</u> (ft)			
Pump In-take Depth = b + (a-b)/2:			
<u>0.76</u> (ft)			
Maximum Allowable Drawdown = (a-b)/8:			
<u>0.25</u> (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
0914	0.0	22.83	7.05	4.24	2.23	52	0.0	
0916	0.5	22.63	7.17	3.56	2.07	12	0.0	
0919	1.0	22.64	7.27	2.50	1.65	40	0.0	
0920	1.5	22.67	7.29	1.81	1.27	72	0.0	
0922	2.0	22.69	7.22	1.61	1.09	83	0.0	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD			<input checked="" type="checkbox"/> Low Flow & Parameters Stable	<input type="checkbox"/> 3 Casing Volumes & Parameters Stable	<input type="checkbox"/> 5 Casing Volumes
			Other:		
SAMPLE COLLECTION RECORD			GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>5.63</u> (ft)			Parameter	Time	Measurement
Sample Collected Via: <input checked="" type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing			DO (mg/L)		
<input checked="" type="checkbox"/> Disp. Pump Tubing Other:			Ferrous Iron (mg/L)		
Sample ID: <u>MW-3</u> Sample Collection Time: <u>0925</u> (24:00)			Redox Potential (mV)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber			Alkalinity (mg/L)		
<u>2</u> Other: <u>1 L NP Amber</u> Other:			Other:		
Other:			Other:		

 Signature: Alf

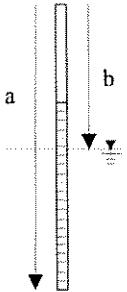
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GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/30/14
Field Representative: AM
Well ID: Mw-4 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	Disp. Bailer	120V Pump	Flow Cell
<input checked="" type="checkbox"/> Disp. Tubing	12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments:	
<input checked="" type="checkbox"/> Good	Improvement Needed	(circle one)	
PURGING/SAMPLING METHOD Predetermined Well Volume <input type="checkbox"/> Low Flow <input type="checkbox"/> 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): <u>41.04</u> (ft)			
Initial Depth to Water (b): <u>5.85</u> (ft)			
Pump In-take Depth = b + (a-b)/2: <u>8.44</u> (ft)			
Maximum Allowable Drawdown = (a-b)/8: <u>0.64</u> (ft)			
Low-Flow Purge Rate: <u>0.25</u> (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.			

Time (24:00)	Cumulative Vol. gal on ①	Temperature °C	pH	Conductivity $\mu\text{S or mS}$	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1027	0.0	27.40	7.45	1.92	0.20	-16	12.8	
1028	0.5	29.46	7.37	1.40	0.18	-105	8.1	
1031	1.0	25.70	7.31	1.42	0.20	-152	4.5	
1033	1.5	25.07	7.26	1.44	0.21	-167	1.9	
1055	2.0	24.50	7.25	1.95	0.22	-175	0.0	

Previous Stabilized Parameters	Low Flow & Parameters Stable	3 Casing Volumes & Parameters Stable	5 Casing Volumes
	<input checked="" type="checkbox"/> Other:		
SAMPLE COLLECTION RECORD		GEOCHEMICAL PARAMETERS	
Depth to Water at Sampling: <u>7.97</u> (ft)			
Sample Collected Via: <input checked="" type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing	Parameter	Time	Measurement
<input checked="" type="checkbox"/> Disp. Pump Tubing Other:	DO (mg/L)		
Sample ID: <u>Mw-4</u> Sample Collection Time: <u>1035</u> (24:00)	Ferrous Iron (mg/L)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) Liter Amber	Redox Potential (mV)		
<u>2</u> Other: <u>1 L NP Amber</u> Other:	Alkalinity (mg/L)		
Other:	Other:		
Other:	Other:		

Signature: Andy Thompson

Revision: 3/15/2013


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Project: Arcadis 11126 Project No.: 09-58-662 Date: 6/30/14
 Field Representative: AM
 Well ID: MW-5 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	Disp. Bailer	120V Pump	Flow Cell
<input checked="" type="checkbox"/> Disp. Tubing	12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments:	
<input checked="" type="checkbox"/> Leed	Improvement Needed (circle one)		
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low Flow Other: (circle one)
PREDETERMINED WELL VOLUME			LOW-FLOW
Casing Diameter Unit Volume (gal/ft) (circle one)			Previous Low-Flow Purge Rate: (lpm)
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38) Other: <u> </u>
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81) " ()
Total Well Depth (a):		(ft)	Total Well Depth (a): <u>12.51</u> (ft)
Initial Depth to Water (b):		(ft)	Initial Depth to Water (b): <u>5.49</u> (ft)
Water Column Height (WCH) = (a - b):		(ft)	Pump In-take Depth = b + (a-b)/2: <u>9.00</u> (ft)
Water Column Volume (WCV) = WCH x Unit Volume:		(gal)	Maximum Allowable Drawdown = (a-b)/8: <u>0.87</u> (ft)
Three Casing Volumes = WCV x 3:		(gal)	Low-Flow Purge Rate: <u>0.25</u> (lpm)*
Five Casing Volumes = WCV x 5:		(gal)	Comments:
Pump Depth (if pump used):		(ft)	*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.

GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal on (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1054	0.0	25.18	7.16	0.934	0.28	-89	0.0	
1056	0.5	24.99	7.73	0.936	0.26	-143	0.0	
1058	1.0	25.17	7.39	0.932	0.24	-152	0.0	
1100	1.5	25.38	7.30	0.931	0.21	-156	0.0	
1102	2.0	25.43	7.15	0.927	0.23	-153	0.0	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD		<input checked="" type="checkbox"/> Low Flow & Parameters Stable	<input checked="" type="checkbox"/> 3 Casing Volumes & Parameters Stable	<input checked="" type="checkbox"/> 5 Casing Volumes
		Other:		
SAMPLE COLLECTION RECORD				
Depth to Water at Sampling: <u>6.45</u> (ft)			Parameter	
Sample Collected Via: <input checked="" type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing			Time	Measurement
<input type="checkbox"/> Disp. Pump Tubing Other:			DO (mg/L)	
Sample ID: <u>MW-5</u> Sample Collection Time: <u>1105</u> (24:00)			Ferrous Iron (mg/L)	
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber			Redox Potential (mV)	
<input checked="" type="checkbox"/> Other: <u>1 L NP Amber</u> Other: _____			Alkalinity (mg/L)	
<input type="checkbox"/> Other: _____			Other:	
			Other:	

 Signature: Any mark

Revision: 3/15/2013


GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/30/14
 Field Representative: AM
 Well ID: MW-6 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT	<input checked="" type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell					
<input checked="" type="checkbox"/> Disp. Tubing	<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:					
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments:						
<input checked="" type="checkbox"/> Good	Improvement Needed (circle one)							
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow Other: (circle one)					
PREDETERMINED WELL VOLUME			LOW-FLOW					
Casing Diameter Unit Volume (gal/ft) (circle one)			Previous Low-Flow Purge Rate: (lpm)					
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	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 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 <input checked="" type="checkbox"/>	Temperature °C	pH	Conductivity µS or <input checked="" type="checkbox"/>	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0937	0.0	24.25	6.58	2.59	1.05	+3	765	Foul odor
0939	0.5	24.93	5.97	2.61	0.65	-3	719	
0941	1.0	25.20	5.90	2.53	0.29	-24	589	
0943	1.5	25.23	6.05	2.39	0.18	-99	462	
0945	2.0	25.28	6.17	2.27	0.18	-66	399	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD <input checked="" type="checkbox"/> Low Flow & Parameters Stable <input type="checkbox"/> 3 Casing Volumes & Parameters Stable <input type="checkbox"/> 5 Casing Volumes								
Other:								

SAMPLE COLLECTION RECORD		GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>7.18</u> (ft)	Parameter	Time	Measurement	
Sample Collected Via: <input checked="" type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing	DO (mg/L)			
<input checked="" type="checkbox"/> Disp. Pump Tubing Other:	Ferrous Iron (mg/L)			
Sample ID: <u>MW-6</u> Sample Collection Time: <u>0945</u> (24:00)	Redox Potential (mV)			
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber	Alkalinity (mg/L)			
<u>2</u> Other: <u>1 L NP Amber</u> Other:	Other:			
Other:	Other:			

 Signature: Alay Sandoval

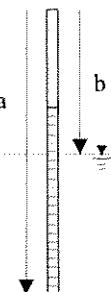
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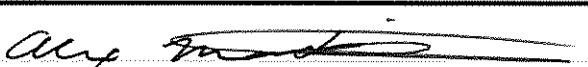


GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 6/30/14
 Field Representative: AM
 Well ID: MW-7 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT		<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell				
<input checked="" type="checkbox"/> Disp. Tubing		<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:				
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____						
<input checked="" type="checkbox"/> Improvement Needed (circle one)								
PURGING/SAMPLING METHOD		Predetermined Well Volume	<input checked="" type="checkbox"/> Low-Flow	Other: (circle one)				
PREDETERMINED WELL VOLUME		 Previous Low-Flow Purge Rate: _____ (lpm) Total Well Depth (a): <u>13.46</u> (ft) Initial Depth to Water (b): <u>5.47</u> (ft) Pump In-take Depth = b + (a-b)/2: <u>9.44</u> (ft) Maximum Allowable Drawdown = (a-b)/8: <u>1.00</u> (ft) Low-Flow Purge Rate: <u>0.25</u> (lpm)* Comments: _____						
Casing Diameter Unit Volume (gal/ft) (circle one)		1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____	4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()					
Total Well Depth (a):		(ft)						
Initial Depth to Water (b):		(ft)						
Water Column Height (WCH) = (a - b):		(ft)						
Water Column Volume (WCV) = WCH x Unit Volume:		(gal)						
Three Casing Volumes = WCV x 3:		(gal)						
Five Casing Volumes = WCV x 5:		(gal)						
Pump Depth (if pump used):		(ft)						
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal or <u>0</u>	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1001	0.0	25.57	6.49	3.60	0.25	-18	0.0	
1003	0.5	26.14	6.79	3.63	0.24	-101	0.0	
1005	1.0	26.30	6.87	3.73	0.23	-126	0.0	
1007	1.5	26.41	6.92	3.66	0.23	-141	0.0	
1009	2.0	26.48	6.94	3.75	0.23	-150	0.0	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD		<input checked="" type="checkbox"/> Low Flow & Parameters Stable		3 Casing Volumes & Parameters Stable		5 Casing Volumes		
		Other:						
SAMPLE COLLECTION RECORD						GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>5.65</u> (ft)						Parameter	Time	Measurement
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing						DO (mg/L)		
<input checked="" type="checkbox"/> Disp. Pump Tubing Other: _____						Ferrous Iron (mg/L)		
Sample ID: <u>MW-7</u>		Sample Collection Time: <u>1010</u> (24:00)				Redox Potential (mV)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved)		Liter Amber				Alkalinity (mg/L)		
<u>2</u> Other: <u>1 LND Amber</u>		Other: _____				Other:		
Other: _____		Other: _____				Other:		

Signature: Arc 

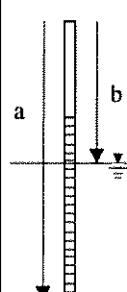
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Project: Arcadis Project No.: 09-87-612 Date: 6/30/14
 Field Representative:
 Well ID: MW-8 Start Time: - End Time: - Total Time (minutes): -

PURGE EQUIPMENT		Disp. Bailer	120V Pump	<input checked="" type="checkbox"/> Flow Cell				
<input checked="" type="checkbox"/> Disp. Tubing		12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:				
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: <u>Bolts broken</u>						
Good	<input type="checkbox"/> Improvement Needed	(circle one)						
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow	Other: (circle one)				
PREDETERMINED WELL VOLUME		<div style="text-align: center; margin-bottom: 10px;">  a b </div> LOW-FLOW						
Casing Diameter Unit Volume (gal/ft) (circle one)		Previous Low-Flow Purge Rate: <u>1.3 gpm</u> (lpm) Total Well Depth (a): <u>13.90</u> (ft) Initial Depth to Water (b): <u>4.18</u> (ft) Pump In-take Depth = b + (a-b)/2: <u>9.04</u> (ft) Maximum Allowable Drawdown = (a-b)/8: <u>1.21</u> (ft) Low-Flow Purge Rate: <u>0.25</u> (lpm)* Comments: _____						
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) " ()		Water Column Height (WCH) = (a - b): _____ (ft) Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal) Three Casing Volumes = WCV x 3: _____ (gal) Five Casing Volumes = WCV x 5: _____ (gal) Pump Depth (if pump used): _____ (ft)						
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal or <u>0</u>	Temperature °C	pH	Conductivity μS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1210	0.0	28.45	7.13	0.470	0.4	+109	0.0	
1212	0.5	28.35	7.06	0.468	0.20	+189	0.0	
1214	1.0	28.26	7.00	0.465	0.19	+174	0.0	
1216	1.5	28.29	6.96	0.460	0.20	+180	0.0	
1218	2.0	28.48	6.43	0.461	0.20	+182	0.0	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD		<input checked="" type="checkbox"/> Low Flow & Parameters Stable	<input type="checkbox"/> 3 Casing Volumes & Parameters Stable	<input type="checkbox"/> 5 Casing Volumes
		<u>Other:</u>		
SAMPLE COLLECTION RECORD				
Depth to Water at Sampling: <u>4.32</u> (ft)				
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing				
<input checked="" type="checkbox"/> Disp. Pump Tubing Other: _____				
Sample ID: <u>MW-8</u>		Sample Collection Time: <u>1210</u> (24:00)		
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved)		<input type="checkbox"/> Liter Amber		
<u>2</u> Other: <u>1 LNPA Amber</u>		<input type="checkbox"/> Other: _____		
<u>1</u> Other: _____		<input type="checkbox"/> Other: _____		

Signature: Alyssa Woods

Revision: 3/15/2013



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Page 10 of 12Project: Arcadis 11126Field Representative: AMWell ID: MW-9Start Time: —Project No.: 09-89-662Date: 6/30/14

PURGE EQUIPMENT		<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell				
<input checked="" type="checkbox"/> Disp. Tubing	<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:					
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____						
<u>Good</u> Improvement Needed (circle one)								
PURGING/SAMPLING METHOD		Predetermined Well Volume	<input checked="" type="checkbox"/> Low-Flow	Other: _____ (circle one)				
PREDETERMINED WELL VOLUME								
Casing Diameter Unit Volume (gal/ft) (circle one)		Previous Low-Flow Purge Rate: <u>14.12</u> (lpm) Total Well Depth (a): <u>14.12</u> (ft) Initial Depth to Water (b): <u>4.25</u> (ft) Pump In-take Depth = b + (a-b)/2: <u>9.18</u> (ft) Maximum Allowable Drawdown = (a-b)/8: <u>1.23</u> (ft) Low-Flow Purge Rate: <u>0.25</u> (lpm)* Comments: _____						
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) " ()		Water Column Height (WCH) = (a - b): _____ (ft) Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal) Three Casing Volumes = WCV x 3: _____ (gal) Five Casing Volumes = WCV x 5: _____ (gal) Pump Depth (if pump used): _____ (ft)						
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal or	Temperature °C	pH	Conductivity μS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1148	0.0	26.49	6.92	1.01	1.03	-97	0.0	
1150	0.5	25.26	6.83	1.02	1.02	-123	0.0	
1152	1.0	25.19	6.79	1.02	0.80	-138	0.0	
1154	1.5	25.94	6.76	1.01	0.55	-148	0.0	
1156	2.0	25.96	6.74	1.01	0.47	-134	0.0	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD			<input checked="" type="checkbox"/> Low Flow & Parameters Stable			<input type="checkbox"/> 3 Casing Volumes & Parameters Stable	<input type="checkbox"/> 5 Casing Volumes	
			Other: _____					
SAMPLE COLLECTION RECORD					GEOCHEMICAL PARAMETERS			
Depth to Water at Sampling: <u>4.95</u> (ft)					Parameter	Time	Measurement	
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing					DO (mg/L)			
<input checked="" type="checkbox"/> Disp. Pump Tubing Other: _____					Ferrous Iron (mg/L)			
Sample ID: <u>MW-9</u> Sample Collection Time: <u>12:00</u> (24:00)					Redox Potential (mV)			
Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber					Alkalinity (mg/L)			
Other: _____					Other: _____			
Other: _____					Other: _____			

Signature: Aly - H

Revision: 3/15/2013


GROUNDWATER SAMPLING DATA SHEET

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 Project: Arcadis 11126

 Project No.: 09-88-662

 Date: 6/30/14

 Field Representative: AM

 Well ID: Mw-10

 Start Time: -

 End Time: -

 Total Time (minutes): -

PURGE EQUIPMENT		<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> 120V Pump	<input checked="" type="checkbox"/> Flow Cell				
<input checked="" type="checkbox"/> Disp. Tubing	<input type="checkbox"/> 12V Pump	<input checked="" type="checkbox"/> Peristaltic Pump	Other/ID#:					
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments:						
<u>good</u> Improvement Needed (circle one)								
PURGING/SAMPLING METHOD		Predetermined Well Volume	<input checked="" type="checkbox"/> Low-Flow	Other: (circle one)				
PREDETERMINED WELL VOLUME			LOW-FLOW					
Casing Diameter Unit Volume (gal/ft) (circle one) 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								
Previous Low-Flow Purge Rate: _____ lpm Total Well Depth (a): <u>17.05</u> ft Initial Depth to Water (b): <u>7.87</u> ft Pump In-take Depth = b + (a-b)/2: <u>12.46</u> ft Maximum Allowable Drawdown = (a-b)/8: <u>1.14</u> ft Low-Flow Purge Rate: <u>0.25</u> lpm* Comments: _____								
<small>*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.</small>								
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal or <input checked="" type="checkbox"/>	Temperature °C	pH	Conductivity µS or <input checked="" type="checkbox"/>	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
<u>0844</u>	<u>0.0</u>	<u>22.42</u>	<u>6.50</u>	<u>2.94</u>	<u>3.01</u>	<u>-7</u>	<u>0.8</u>	
<u>0946</u>	<u>0.5</u>	<u>22.59</u>	<u>6.66</u>	<u>2.93</u>	<u>1.02</u>	<u>-119</u>	<u>0.6</u>	
<u>0948</u>	<u>1.0</u>	<u>22.75</u>	<u>6.80</u>	<u>2.93</u>	<u>1.24</u>	<u>-144</u>	<u>0.0</u>	
<u>0850</u>	<u>1.5</u>	<u>22.90</u>	<u>6.87</u>	<u>2.92</u>	<u>1.23</u>	<u>-153</u>	<u>0.0</u>	
<u>0852</u>	<u>2.0</u>	<u>23.04</u>	<u>6.91</u>	<u>2.92</u>	<u>1.17</u>	<u>-160</u>	<u>0.0</u>	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD <input checked="" type="checkbox"/> Low Flow & Parameters Stable <input type="checkbox"/> 3 Casing Volumes & Parameters Stable <input type="checkbox"/> 5 Casing Volumes Other: _____								
SAMPLE COLLECTION RECORD					GEOCHEMICAL PARAMETERS			
Depth to Water at Sampling: <u>7.90</u> ft Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing <input checked="" type="checkbox"/> Disp. Pump Tubing Other: _____					Parameter	Time	Measurement	
Sample ID: <u>Mw-10</u> Sample Collection Time: <u>0855</u> (24:00) Containers (#): <u>3</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber Other: _____ Other: _____ Other: _____ Other: _____					DO (mg/L)			
					Ferrous Iron (mg/L)			
					Redox Potential (mV)			
					Alkalinity (mg/L)			
					Other:			
					Other:			

 Signature: Alvarez

Revision: 3/15/2013


GROUNDWATER SAMPLING DATA SHEET

 Page 12 of 12

 Project: Arcadis 11126

 Project No.: 09-88-662

 Date: 6/30/14

 Field Representative: AM

 Well ID: Mw-11

 Start Time: -

 End Time: -

 Total Time (minutes): -

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

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

Comments:

Good Improvement Needed (circle one)

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

PREDETERMINED WELL VOLUME

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)

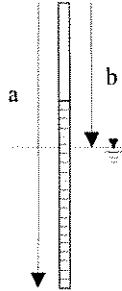
Water Column Height (WCH) = (a - b): (ft)

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): 16.90 (ft)

 Initial Depth to Water (b): 10.17 (ft)

 Pump In-take Depth = b + (a-b)/2: 13.51 (ft)

 Maximum Allowable Drawdown = (a-b)/8: 0.84 (ft)

 Low-Flow Purge Rate: 0.13 (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 on ①	Temperature °C	pH	Conductivity µS or ③	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0620	21-760.0	21.74	6.74	0.499	3.37	174	0.0	
0822	0.5	21.68	6.67	0.499	2.96	156	0.0	
0824	1.0	21.67	6.70	0.499	2.33	116	0.0	
0826	1.5	21.66	6.75	0.497	1.92	77	0.0	
0827	2.0	21.66	6.79	0.497	1.67	44	0.0	
0830	2.5	21.66	6.82	0.497	1.45	11	0.0	

Previous Stabilized Parameters

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

SAMPLE COLLECTION RECORD			GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>10.18</u> (ft)			Parameter		
Sample Collected Via:	<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> Dedicated Pump Tubing	DO (mg/L)	Time	Measurement
<input checked="" type="checkbox"/> Disp. Pump Tubing	Other:		Ferrous Iron (mg/L)		
Sample ID: <u>Mw-11</u>	Sample Collection Time: <u>0830</u> (24:00)		Redox Potential (mV)		
Containers (#): <u>63</u> VOA	(<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved)	Liter Amber	Alkalinity (mg/L)		
Other:		Other:	Other:		
Other:		Other:	Other:		

Signature:

Revision: 3/15/2013

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Kristene Tidwell					Site Contact/Sampler: Alex Martinez		Date:					COC No:				
Broadbent & Associates, Inc. 4820 Business Center Drive, Suite 110 Fairfield, CA 94534 Phone: 707-455-7290 Fax: 707-863-9046 Project Name: Arcadis 11126 1700 Powell Street, Emeryville, CA PO # GP09BPNA.C044	Tel/Fax: 707-455-7290 / 707-863-9046					Analysis Turnaround Time		Lab Contact: Dimple Sharma					Carrier:		of COCs		
						Calendar (C) or Work Days (W)										Job No.	
						TAT if different from Below										SDG No.	
						<input checked="" type="checkbox"/> 2 weeks											
						<input type="checkbox"/> 1 week											
						<input type="checkbox"/> 2 days											
						<input type="checkbox"/> 1 day											
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	GRO by 8015M	DRO by 8015M w/Silica Gel Cleanup	MTBE by 8015M	BTLEX, 5 FO, 1,2-DCA & EDB by 8260	TAME, Fuel Oxy's, TBA, MTBE & TAME by 8260	Fuel Oxy's, TBA, MTBE & TAME by 8260		Sample Specific Notes:		
MW-1		6/30/2014	1135	GRAB	AQ	3	X			X							
MW-2		6/30/2014	1245	GRAB	AQ	3	X		X								
MW-3		6/30/2014	0925	GRAB	AQ	5	X X				X						
MW-4		6/30/2014	1035	GRAB	AQ	5	X X				X						
MW-5		6/30/2014	1105	GRAB	AQ	5	X X			X							
MW-6		6/30/2014	0945	GRAB	AQ	5	X X				X						
MW-7		6/30/2014	1010	GRAB	AQ	5	X X			X							
MW-8		6/30/2014	1220	GRAB	AQ	5	X X				X						
MW-9		6/30/2014	1200	GRAB	AQ	3	X			X							
MW-10		6/30/2014	0855	GRAB	AQ	3		X									
MW-11		6/30/2014	0830	GRAB	AQ	3			X								
TB-11126-06302014		--	--	--	AQ	2										On Hold	
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Special Instructions:																	
Relinquished by: 	Company: GRAB			Date/Time: 1410		Received by:		Company: TAP			Date/Time: 6/30/14 1410						
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: 720-58352-1

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:

7/11/2014 3:40:28 PM

Dimple Sharma, Senior Project Manager

(925)484-1919

dimple.sharma@testamericainc.com

LINKS

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The
Expert

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www.testamericainc.com

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

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

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Definitions/Glossary

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

TestAmerica Job ID: 720-58352-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.	1
□	Listed under the "D" column to designate that the result is reported on a dry weight basis	2
%R	Percent Recovery	3
CFL	Contains Free Liquid	4
CNF	Contains no Free Liquid	5
DER	Duplicate error ratio (normalized absolute difference)	6
Dil Fac	Dilution Factor	7
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	8
DLC	Decision level concentration	9
MDA	Minimum detectable activity	10
EDL	Estimated Detection Limit	11
MDC	Minimum detectable concentration	12
MDL	Method Detection Limit	13
ML	Minimum Level (Dioxin)	14
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)	

Case Narrative

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

TestAmerica Job ID: 720-58352-1

Job ID: 720-58352-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-58352-1

Comments

No additional comments.

Receipt

The samples were received on 6/30/2014 2:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-1

Lab Sample ID: 720-58352-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	4.2		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
Benzene	7.8		0.50		ug/L	1		MS	
Toluene	0.58		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
Gasoline Range Organics (GRO) -C6-C12	160		50		ug/L	1		MS	
TBA	970		20		ug/L	1		8260B/CA_LUFT	Total/NA
								MS	

Client Sample ID: MW-2

Lab Sample ID: 720-58352-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	700		100		ug/L	200		8260B/CA_LUFT	Total/NA
Benzene	1800		100		ug/L	200		MS	
Ethylbenzene	140		100		ug/L	200		8260B/CA_LUFT	Total/NA
TBA	25000		4000		ug/L	200		MS	
								8260B/CA_LUFT	Total/NA
								MS	

Client Sample ID: MW-3

Lab Sample ID: 720-58352-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	1.5		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
TBA	1900		100		ug/L	5		8260B/CA_LUFT	Total/NA
								MS	

Client Sample ID: MW-4

Lab Sample ID: 720-58352-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	5.5		5.0		ug/L	10		8260B/CA_LUFT	Total/NA
TBA	24000		400		ug/L	20		MS	
Diesel Range Organics [C10-C28]	800		50		ug/L	1		8260B/CA_LUFT	Total/NA
								MS	
								8015B	Silica Gel Cleanup

Client Sample ID: MW-5

Lab Sample ID: 720-58352-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	5.2		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
Benzene	2.5		0.50		ug/L	1		MS	
Toluene	0.67		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
Xylenes, Total	3.9		1.0		ug/L	1		MS	
Gasoline Range Organics (GRO) -C6-C12	2800		50		ug/L	1		8260B/CA_LUFT	Total/NA
								MS	

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-5 (Continued)

Lab Sample ID: 720-58352-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TBA	160		20		ug/L	1		8260B/CA_LUFT	Total/NA
Diesel Range Organics [C10-C28]	340		56		ug/L	1		MS 8015B	Silica Gel Cleanup

Client Sample ID: MW-6

Lab Sample ID: 720-58352-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	2.4		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
TBA	57		20		ug/L	1		8260B/CA_LUFT	Total/NA
Diesel Range Organics [C10-C28]	300		53		ug/L	1		MS 8015B	Silica Gel Cleanup

Client Sample ID: MW-7

Lab Sample ID: 720-58352-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	2.7		2.5		ug/L	5		8260B/CA_LUFT	Total/NA
TBA	2300		100		ug/L	5		8260B/CA_LUFT	Total/NA
Diesel Range Organics [C10-C28]	130		50		ug/L	1		MS 8015B	Silica Gel Cleanup

Client Sample ID: MW-8

Lab Sample ID: 720-58352-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO) -C6-C12	150		50		ug/L	1		8260B/CA_LUFT	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 720-58352-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	370		2.5		ug/L	5		8260B/CA_LUFT	Total/NA
Benzene	170		2.5		ug/L	5		8260B/CA_LUFT	Total/NA
Ethylbenzene	4.0		2.5		ug/L	5		8260B/CA_LUFT	Total/NA
Toluene	12		2.5		ug/L	5		8260B/CA_LUFT	Total/NA
Xylenes, Total	10		5.0		ug/L	5		8260B/CA_LUFT	Total/NA
Gasoline Range Organics (GRO) -C6-C12	2500		250		ug/L	5		8260B/CA_LUFT	Total/NA
TBA	3800		100		ug/L	5		8260B/CA_LUFT	Total/NA
TAME	13		2.5		ug/L	5		8260B/CA_LUFT	Total/NA

Client Sample ID: MW-10

Lab Sample ID: 720-58352-10

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-11

Lab Sample ID: 720-58352-11

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-1

Lab Sample ID: 720-58352-1

Date Collected: 06/30/14 11:35

Matrix: Water

Date Received: 06/30/14 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	4.2		0.50		ug/L		07/01/14 14:32		1
Benzene	7.8		0.50		ug/L		07/01/14 14:32		1
Ethylbenzene	ND		0.50		ug/L		07/01/14 14:32		1
Toluene	0.58		0.50		ug/L		07/01/14 14:32		1
Xylenes, Total	ND		1.0		ug/L		07/01/14 14:32		1
Gasoline Range Organics (GRO) -C6-C12	160		50		ug/L		07/01/14 14:32		1
TBA	970		20		ug/L		07/01/14 14:32		1
TAME	ND		0.50		ug/L		07/01/14 14:32		1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99			67 - 130			07/01/14 14:32		1
1,2-Dichloroethane-d4 (Surr)	96			72 - 130			07/01/14 14:32		1
Toluene-d8 (Surr)	101			70 - 130			07/01/14 14:32		1

TestAmerica Pleasanton

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-2

Lab Sample ID: 720-58352-2

Date Collected: 06/30/14 12:45

Matrix: Water

Date Received: 06/30/14 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	700		100		ug/L			07/01/14 15:01	200
Benzene	1800		100		ug/L			07/01/14 15:01	200
EDB	ND		100		ug/L			07/01/14 15:01	200
1,2-DCA	ND		100		ug/L			07/01/14 15:01	200
Ethylbenzene	140		100		ug/L			07/01/14 15:01	200
Toluene	ND		100		ug/L			07/01/14 15:01	200
Xylenes, Total	ND		200		ug/L			07/01/14 15:01	200
Gasoline Range Organics (GRO)	ND		10000		ug/L			07/01/14 15:01	200
-C6-C12									
TBA	25000		4000		ug/L			07/01/14 15:01	200
DIPE	ND		100		ug/L			07/01/14 15:01	200
TAME	ND		100		ug/L			07/01/14 15:01	200
Ethyl t-butyl ether	ND		100		ug/L			07/01/14 15:01	200
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96			67 - 130				07/01/14 15:01	200
1,2-Dichloroethane-d4 (Surr)	96			72 - 130				07/01/14 15:01	200
Toluene-d8 (Surr)	100			70 - 130				07/01/14 15:01	200

TestAmerica Pleasanton

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-3

Lab Sample ID: 720-58352-3

Date Collected: 06/30/14 09:25

Matrix: Water

Date Received: 06/30/14 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	1.5		0.50		ug/L			07/01/14 15:31	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			07/01/14 15:31	1
TBA	1900		100		ug/L			07/02/14 14:01	5
TAME	ND		0.50		ug/L			07/01/14 15:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					07/01/14 15:31	1
4-Bromofluorobenzene	98		67 - 130					07/02/14 14:01	5
1,2-Dichloroethane-d4 (Surr)	100		72 - 130					07/01/14 15:31	1
1,2-Dichloroethane-d4 (Surr)	97		72 - 130					07/02/14 14:01	5
Toluene-d8 (Surr)	100		70 - 130					07/01/14 15:31	1
Toluene-d8 (Surr)	100		70 - 130					07/02/14 14:01	5

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		07/07/14 07:56	07/07/14 18:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.05		0 - 5				07/07/14 07:56	07/07/14 18:58	1
p-Terphenyl	108		31 - 150				07/07/14 07:56	07/07/14 18:58	1

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-4

Date Collected: 06/30/14 10:35
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	5.5		5.0		ug/L			07/01/14 16:00	10
Gasoline Range Organics (GRO) -C6-C12	ND		500		ug/L			07/01/14 16:00	10
TBA	24000		400		ug/L			07/02/14 14:30	20
TAME	ND		5.0		ug/L			07/01/14 16:00	10

Surrogate

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130		07/01/14 16:00	10
4-Bromofluorobenzene	97		67 - 130		07/02/14 14:30	20
1,2-Dichloroethane-d4 (Surr)	97		72 - 130		07/01/14 16:00	10
1,2-Dichloroethane-d4 (Surr)	95		72 - 130		07/02/14 14:30	20
Toluene-d8 (Surr)	100		70 - 130		07/01/14 16:00	10
Toluene-d8 (Surr)	101		70 - 130		07/02/14 14:30	20

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]	800		50		ug/L		07/07/14 07:56	07/07/14 19:23	1
Surrogate									
Capric Acid (Surr)	0.07		0 - 5				07/07/14 07:56	07/07/14 19:23	1
p-Terphenyl	85		31 - 150				07/07/14 07:56	07/07/14 19:23	1

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-5

Lab Sample ID: 720-58352-5

Date Collected: 06/30/14 11:05

Matrix: Water

Date Received: 06/30/14 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	5.2		0.50		ug/L			07/01/14 16:29	1
Benzene	2.5		0.50		ug/L			07/01/14 16:29	1
Ethylbenzene	ND		0.50		ug/L			07/01/14 16:29	1
Toluene	0.67		0.50		ug/L			07/01/14 16:29	1
Xylenes, Total	3.9		1.0		ug/L			07/01/14 16:29	1
Gasoline Range Organics (GRO) -C6-C12	2800		50		ug/L			07/01/14 16:29	1
TBA	160		20		ug/L			07/02/14 14:59	1
TAME	ND		0.50		ug/L			07/01/14 16:29	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104			67 - 130				07/01/14 16:29	1
4-Bromofluorobenzene	96			67 - 130				07/02/14 14:59	1
1,2-Dichloroethane-d4 (Surr)	98			72 - 130				07/01/14 16:29	1
1,2-Dichloroethane-d4 (Surr)	95			72 - 130				07/02/14 14:59	1
Toluene-d8 (Surr)	107			70 - 130				07/01/14 16:29	1
Toluene-d8 (Surr)	108			70 - 130				07/02/14 14:59	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]	340		56		ug/L		07/07/14 07:56	07/07/14 19:47	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.07			0 - 5			07/07/14 07:56	07/07/14 19:47	1
p-Terphenyl	112			31 - 150			07/07/14 07:56	07/07/14 19:47	1

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-6

Lab Sample ID: 720-58352-6

Date Collected: 06/30/14 09:45

Matrix: Water

Date Received: 06/30/14 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	2.4		0.50		ug/L			07/01/14 15:25	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			07/01/14 15:25	1
TBA	57		20		ug/L			07/01/14 15:25	1
TAME	ND		0.50		ug/L			07/01/14 15:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130					07/01/14 15:25	1
1,2-Dichloroethane-d4 (Surr)	110		72 - 130					07/01/14 15:25	1
Toluene-d8 (Surr)	97		70 - 130					07/01/14 15:25	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]	300		53		ug/L		07/07/14 07:56	07/07/14 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5				07/07/14 07:56	07/07/14 20:12	1
p-Terphenyl	108		31 - 150				07/07/14 07:56	07/07/14 20:12	1

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-7

Lab Sample ID: 720-58352-7

Date Collected: 06/30/14 10:10

Matrix: Water

Date Received: 06/30/14 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	2.7		2.5		ug/L			07/01/14 15:54	5
Benzene	ND		2.5		ug/L			07/01/14 15:54	5
Ethylbenzene	ND		2.5		ug/L			07/01/14 15:54	5
Toluene	ND		2.5		ug/L			07/01/14 15:54	5
Xylenes, Total	ND		5.0		ug/L			07/01/14 15:54	5
Gasoline Range Organics (GRO) -C6-C12	ND		250		ug/L			07/01/14 15:54	5
TBA	2300		100		ug/L			07/01/14 15:54	5
TAME	ND		2.5		ug/L			07/01/14 15:54	5
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104			67 - 130				07/01/14 15:54	5
1,2-Dichloroethane-d4 (Surr)	110			72 - 130				07/01/14 15:54	5
Toluene-d8 (Surr)	96			70 - 130				07/01/14 15:54	5

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]	130		50		ug/L		07/07/14 07:56	07/07/14 20:36	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03			0 - 5			07/07/14 07:56	07/07/14 20:36	1
p-Terphenyl	104			31 - 150			07/07/14 07:56	07/07/14 20:36	1

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Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-8

Lab Sample ID: 720-58352-8

Date Collected: 06/30/14 12:20

Matrix: Water

Date Received: 06/30/14 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		0.50		ug/L			07/01/14 16:22	1
Gasoline Range Organics (GRO) -C6-C12	150		50		ug/L			07/01/14 16:22	1
TBA	ND		20		ug/L			07/01/14 16:22	1
TAME	ND		0.50		ug/L			07/01/14 16:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 130					07/01/14 16:22	1
1,2-Dichloroethane-d4 (Surr)	110		72 - 130					07/01/14 16:22	1
Toluene-d8 (Surr)	97		70 - 130					07/01/14 16:22	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		55		ug/L		07/07/14 07:56	07/07/14 21:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5				07/07/14 07:56	07/07/14 21:00	1
p-Terphenyl	109		31 - 150				07/07/14 07:56	07/07/14 21:00	1

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-9

Lab Sample ID: 720-58352-9

Date Collected: 06/30/14 12:00

Matrix: Water

Date Received: 06/30/14 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	370		2.5		ug/L			07/01/14 16:51	5
Benzene	170		2.5		ug/L			07/01/14 16:51	5
Ethylbenzene	4.0		2.5		ug/L			07/01/14 16:51	5
Toluene	12		2.5		ug/L			07/01/14 16:51	5
Xylenes, Total	10		5.0		ug/L			07/01/14 16:51	5
Gasoline Range Organics (GRO) -C6-C12	2500		250		ug/L			07/01/14 16:51	5
TBA	3800		100		ug/L			07/01/14 16:51	5
TAME	13		2.5		ug/L			07/01/14 16:51	5
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		106		67 - 130				07/01/14 16:51	5
1,2-Dichloroethane-d4 (Surr)		113		72 - 130				07/01/14 16:51	5
Toluene-d8 (Surr)		98		70 - 130				07/01/14 16:51	5

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Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-10

Date Collected: 06/30/14 08:55

Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-10

Matrix: Water

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

Analyst	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			07/01/14 17:19	1
<hr/>									
Surrogate									
4-Bromofluorobenzene	101		67 - 130				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		72 - 130					07/01/14 17:19	1
Toluene-d8 (Surr)	97		70 - 130					07/01/14 17:19	1

Client Sample Results

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-11

Date Collected: 06/30/14 08:30

Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-11

Matrix: Water

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

Analyst	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			07/01/14 23:32	1
<hr/>									
Surrogate									
4-Bromofluorobenzene	102		67 - 130				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		72 - 130					07/01/14 23:32	1
Toluene-d8 (Surr)	96		70 - 130					07/01/14 23:32	1

QC Sample Results

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

TestAmerica Job ID: 720-58352-1

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

Lab Sample ID: MB 720-162180/4

Matrix: Water

Analysis Batch: 162180

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

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
MTBE	ND		0.50		ug/L			07/01/14 08:41	1
Benzene	ND		0.50		ug/L			07/01/14 08:41	1
EDB	ND		0.50		ug/L			07/01/14 08:41	1
1,2-DCA	ND		0.50		ug/L			07/01/14 08:41	1
Ethylbenzene	ND		0.50		ug/L			07/01/14 08:41	1
Toluene	ND		0.50		ug/L			07/01/14 08:41	1
Xylenes, Total	ND		1.0		ug/L			07/01/14 08:41	1
Gasoline Range Organics (GRO)	ND		50		ug/L			07/01/14 08:41	1
-C6-C12									
TBA	ND		20		ug/L			07/01/14 08:41	1
DIPE	ND		0.50		ug/L			07/01/14 08:41	1
TAME	ND		0.50		ug/L			07/01/14 08:41	1
Ethyl t-butyl ether	ND		0.50		ug/L			07/01/14 08:41	1

MB MB

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	101		67 - 130			1
1,2-Dichloroethane-d4 (Surr)	95		72 - 130			1
Toluene-d8 (Surr)	101		70 - 130			1

Lab Sample ID: LCS 720-162180/5

Matrix: Water

Analysis Batch: 162180

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

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
	Added							
MTBE	25.0		25.1		ug/L		100	62 - 130
Benzene	25.0		26.6		ug/L		106	79 - 130
EDB	25.0		26.2		ug/L		105	70 - 130
1,2-DCA	25.0		24.4		ug/L		98	61 - 132
Ethylbenzene	25.0		26.2		ug/L		105	80 - 120
Toluene	25.0		25.6		ug/L		103	78 - 120
TBA	250		272		ug/L		109	70 - 130
DIPE	25.0		26.1		ug/L		105	69 - 134
TAME	25.0		27.1		ug/L		108	79 - 130
Ethyl t-butyl ether	25.0		27.2		ug/L		109	70 - 130

LCS LCS

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCS 720-162180/7

Matrix: Water

Analysis Batch: 162180

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

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
	Added							
Gasoline Range Organics (GRO)	500		515		ug/L		103	58 - 120
-C6-C12								

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QC Sample Results

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

TestAmerica Job ID: 720-58352-1

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

Lab Sample ID: LCS 720-162180/7

Matrix: Water

Analysis Batch: 162180

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

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	107		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 720-162180/6

Matrix: Water

Analysis Batch: 162180

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

Analyte	Spike		LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier							
MTBE	25.0	26.0		ug/L		104		62 - 130	4	20
Benzene	25.0	26.7		ug/L		107		79 - 130	0	20
EDB	25.0	26.5		ug/L		106		70 - 130	1	20
1,2-DCA	25.0	24.4		ug/L		98		61 - 132	0	20
Ethylbenzene	25.0	26.2		ug/L		105		80 - 120	0	20
Toluene	25.0	25.7		ug/L		103		78 - 120	0	20
TBA	250	281		ug/L		112		70 - 130	3	20
DIPE	25.0	26.4		ug/L		106		69 - 134	1	20
TAME	25.0	27.3		ug/L		109		79 - 130	1	20
Ethyl t-butyl ether	25.0	27.7		ug/L		111		70 - 130	2	20

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	94		72 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: LCSD 720-162180/8

Matrix: Water

Analysis Batch: 162180

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

Analyte	Spike		LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier							
Gasoline Range Organics (GRO) -C6-C12	500	529		ug/L		106		58 - 120	3	20

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	94		72 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: MB 720-162199/4

Matrix: Water

Analysis Batch: 162199

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

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methyl tert-butyl ether	ND		0.50	ug/L				07/01/14 11:18	1
MTBE	ND		0.50	ug/L				07/01/14 11:18	1
Benzene	ND		0.50	ug/L				07/01/14 11:18	1
Ethylbenzene	ND		0.50	ug/L				07/01/14 11:18	1
Toluene	ND		0.50	ug/L				07/01/14 11:18	1

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QC Sample Results

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

TestAmerica Job ID: 720-58352-1

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

Lab Sample ID: MB 720-162199/4

Matrix: Water

Analysis Batch: 162199

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

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Xylenes, Total	ND		1.0		ug/L			07/01/14 11:18	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			07/01/14 11:18	1
TBA	ND		20		ug/L			07/01/14 11:18	1
TAME	ND		0.50		ug/L			07/01/14 11:18	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	96		67 - 130		07/01/14 11:18	1
1,2-Dichloroethane-d4 (Surr)	107		72 - 130		07/01/14 11:18	1
Toluene-d8 (Surr)	98		70 - 130		07/01/14 11:18	1

Lab Sample ID: LCS 720-162199/5

Matrix: Water

Analysis Batch: 162199

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

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Added								
Methyl tert-butyl ether	25.0		26.0		ug/L		104	62 - 130	
MTBE	25.0		26.0		ug/L		104	62 - 130	
Benzene	25.0		23.8		ug/L		95	79 - 130	
Ethylbenzene	25.0		24.4		ug/L		98	80 - 120	
Toluene	25.0		24.8		ug/L		99	78 - 120	
TBA	250		237		ug/L		95	70 - 130	
TAME	25.0		26.8		ug/L		107	79 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	101		72 - 130
Toluene-d8 (Surr)	96		70 - 130

Lab Sample ID: LCS 720-162199/7

Matrix: Water

Analysis Batch: 162199

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

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Added								
Gasoline Range Organics (GRO) -C6-C12	500		449		ug/L		90	58 - 120	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	110		72 - 130
Toluene-d8 (Surr)	97		70 - 130

Lab Sample ID: LCSD 720-162199/6

Matrix: Water

Analysis Batch: 162199

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

Analyte	Spike		LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
	Added									
Methyl tert-butyl ether	25.0		24.9		ug/L		100	62 - 130	4	20

TestAmerica Pleasanton

QC Sample Results

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

TestAmerica Job ID: 720-58352-1

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

Lab Sample ID: LCSD 720-162199/6

Matrix: Water

Analysis Batch: 162199

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

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
		Added	Result	Qualifier							
MTBE		25.0	24.9		ug/L		100	62 - 130	4		20
Benzene		25.0	23.3		ug/L		93	79 - 130	2		20
Ethylbenzene		25.0	24.2		ug/L		97	80 - 120	1		20
Toluene		25.0	23.7		ug/L		95	78 - 120	4		20
TBA		250	240		ug/L		96	70 - 130	1		20
TAME		25.0	25.8		ug/L		103	79 - 130	4		20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		72 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: LCSD 720-162199/8

Matrix: Water

Analysis Batch: 162199

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

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
		Added	Result	Qualifier							
Gasoline Range Organics (GRO)		500	472		ug/L		94	58 - 120	5		20
-C6-C12											
Surrogate	LCSD	LCSD	Limits	Limits	Limits	Limits	Limits	Limits	Limits	Limits	Limits
	%Recovery	Qualifier									
4-Bromofluorobenzene	100		67 - 130								
1,2-Dichloroethane-d4 (Surr)	108		72 - 130								
Toluene-d8 (Surr)	98		70 - 130								

Lab Sample ID: 720-58352-6 MS

Matrix: Water

Analysis Batch: 162199

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
Methyl tert-butyl ether	2.4		25.0	29.1		ug/L		107	60 - 138		
MTBE	2.4		25.0	29.1		ug/L		107	60 - 138		
Benzene	ND		25.0	23.2		ug/L		93	60 - 140		
Ethylbenzene	ND		25.0	23.8		ug/L		95	60 - 140		
Toluene	ND		25.0	23.6		ug/L		94	60 - 140		
TBA	57		250	296		ug/L		96	60 - 140		
TAME	ND		25.0	28.5		ug/L		113	60 - 140		
Surrogate	MS	MS	Limits	Limits	Limits	Limits	Limits	Limits	Limits	Limits	Limits
	%Recovery	Qualifier									
4-Bromofluorobenzene	99		67 - 130								
1,2-Dichloroethane-d4 (Surr)	104		72 - 130								
Toluene-d8 (Surr)	100		70 - 130								

TestAmerica Pleasanton

QC Sample Results

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

TestAmerica Job ID: 720-58352-1

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

Lab Sample ID: 720-58352-6 MSD

Matrix: Water

Analysis Batch: 162199

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit		
	Result	Qualifier	Added	Result	Qualifier								
Methyl tert-butyl ether	2.4		25.0	28.4		ug/L		104	60 - 138	2	20		
MTBE	2.4		25.0	28.4		ug/L		104	60 - 138	2	20		
Benzene	ND		25.0	22.5		ug/L		90	60 - 140	3	20		
Ethylbenzene	ND		25.0	22.5		ug/L		90	60 - 140	5	20		
Toluene	ND		25.0	22.8		ug/L		91	60 - 140	3	20		
TBA	57		250	278		ug/L		88	60 - 140	7	20		
TAME	ND		25.0	27.2		ug/L		108	60 - 140	5	20		
Surrogate													
4-Bromofluorobenzene	100	%Recovery	Qualifier	Limits									
1,2-Dichloroethane-d4 (Surr)	103			67 - 130									
Toluene-d8 (Surr)	99			72 - 130									
Lab Sample ID: MB 720-162237/4													
Matrix: Water													
Analysis Batch: 162237													
Surrogate													
4-Bromofluorobenzene	100	%Recovery	Qualifier	Limits									
1,2-Dichloroethane-d4 (Surr)	107			67 - 130									
Toluene-d8 (Surr)	97			72 - 130									
Lab Sample ID: LCS 720-162237/5													
Matrix: Water													
Analysis Batch: 162237													
Surrogate													
4-Bromofluorobenzene	98	%Recovery	Qualifier	Limits									
1,2-Dichloroethane-d4 (Surr)	103			67 - 130									
Toluene-d8 (Surr)	98			72 - 130									
Lab Sample ID: LCSD 720-162237/6													
Matrix: Water													
Analysis Batch: 162237													
Surrogate													
4-Bromofluorobenzene	99	%Recovery	Qualifier	Limits									
1,2-Dichloroethane-d4 (Surr)	103			67 - 130									

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 162237

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
	Result	Qualifier									
Methyl tert-butyl ether	ND		0.50		ug/L			07/01/14 19:44	1		
Surrogate											
4-Bromofluorobenzene	100	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	107			67 - 130							
Toluene-d8 (Surr)	97			72 - 130							
Lab Sample ID: Lab Control Sample											
Matrix: Water											
Analysis Batch: 162237											
Surrogate											
4-Bromofluorobenzene	98	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	103			67 - 130							
Toluene-d8 (Surr)	98			72 - 130							

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 162237

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Added	Result	Qualifier						
Methyl tert-butyl ether	25.0	24.6		ug/L		98	62 - 130	2	20
Surrogate									
4-Bromofluorobenzene	99	%Recovery	Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)	103			67 - 130					

TestAmerica Pleasanton

QC Sample Results

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

TestAmerica Job ID: 720-58352-1

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

Lab Sample ID: LCSD 720-162237/6

Matrix: Water

Analysis Batch: 162237

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: 720-58352-11 MS

Matrix: Water

Analysis Batch: 162237

Client Sample ID: MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit ug/L	D	%Rec	%Rec.
Methyl tert-butyl ether	ND		25.0	25.4				102	60 - 138
Surrogate	MS %Recovery	MS Qualifier							Limits
4-Bromofluorobenzene	102			67 - 130					
1,2-Dichloroethane-d4 (Surr)	107			72 - 130					
Toluene-d8 (Surr)	99			70 - 130					

Lab Sample ID: 720-58352-11 MSD

Matrix: Water

Analysis Batch: 162237

Client Sample ID: MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit ug/L	D	%Rec	%Rec.	RPD
Methyl tert-butyl ether	ND		25.0	25.7				103	60 - 138	1
Surrogate	MSD %Recovery	MSD Qualifier							Limits	RPD
4-Bromofluorobenzene	100			67 - 130						
1,2-Dichloroethane-d4 (Surr)	105			72 - 130						
Toluene-d8 (Surr)	99			70 - 130						

Lab Sample ID: MB 720-162277/4

Matrix: Water

Analysis Batch: 162277

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit ug/L	D	Prepared	Analyzed	Dil Fac
MTBE	ND		0.50		ug/L			07/02/14 08:37	1
Benzene	ND		0.50		ug/L			07/02/14 08:37	1
Ethylbenzene	ND		0.50		ug/L			07/02/14 08:37	1
Toluene	ND		0.50		ug/L			07/02/14 08:37	1
Xylenes, Total	ND		1.0		ug/L			07/02/14 08:37	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			07/02/14 08:37	1
TBA	ND		20		ug/L			07/02/14 08:37	1
TAME	ND		0.50		ug/L			07/02/14 08:37	1
Surrogate	MB %Recovery	MB Qualifier					Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130					07/02/14 08:37	1
1,2-Dichloroethane-d4 (Surr)	93		72 - 130					07/02/14 08:37	1
Toluene-d8 (Surr)	102		70 - 130					07/02/14 08:37	1

TestAmerica Pleasanton

QC Sample Results

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

TestAmerica Job ID: 720-58352-1

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

Lab Sample ID: LCS 720-162277/5

Matrix: Water

Analysis Batch: 162277

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				Limits
MTBE	25.0	25.1		ug/L	101	62 - 130	
Benzene	25.0	25.9		ug/L	104	79 - 130	
Ethylbenzene	25.0	26.0		ug/L	104	80 - 120	
Toluene	25.0	25.1		ug/L	100	78 - 120	
TBA	250	286		ug/L	115	70 - 130	
TAME	25.0	26.3		ug/L	105	79 - 130	

LCS LCS

Surrogate	Spike	LCS	LCS	Limits
	Added	Result	Qualifier	
4-Bromofluorobenzene	98			67 - 130
1,2-Dichloroethane-d4 (Surr)	92			72 - 130
Toluene-d8 (Surr)	102			70 - 130

Lab Sample ID: LCS 720-162277/7

Matrix: Water

Analysis Batch: 162277

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				Limits
Gasoline Range Organics (GRO) -C6-C12	500	529		ug/L	106	58 - 120	

Surrogate	Spike	LCS	LCS	Limits
	Added	Result	Qualifier	
4-Bromofluorobenzene	100			67 - 130
1,2-Dichloroethane-d4 (Surr)	95			72 - 130
Toluene-d8 (Surr)	103			70 - 130

Lab Sample ID: LCSD 720-162277/6

Matrix: Water

Analysis Batch: 162277

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

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
MTBE	25.0	26.2		ug/L	105	62 - 130		4	20
Benzene	25.0	26.1		ug/L	105	79 - 130		1	20
Ethylbenzene	25.0	26.1		ug/L	104	80 - 120		0	20
Toluene	25.0	25.5		ug/L	102	78 - 120		1	20
TBA	250	278		ug/L	111	70 - 130		3	20
TAME	25.0	27.1		ug/L	108	79 - 130		3	20

Surrogate	Spike	LCSD	LCSD	Limits
	Added	Result	Qualifier	
4-Bromofluorobenzene	98			67 - 130
1,2-Dichloroethane-d4 (Surr)	94			72 - 130
Toluene-d8 (Surr)	102			70 - 130

TestAmerica Pleasanton

QC Sample Results

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

TestAmerica Job ID: 720-58352-1

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

Lab Sample ID: LCSD 720-162277/8

Matrix: Water

Analysis Batch: 162277

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
Gasoline Range Organics (GRO) -C6-C12	500	542		ug/L		108	58 - 120	2	2	20
Surrogate										
LCSD %Recovery LCSD Qualifier Limits										
4-Bromofluorobenzene 100 67 - 130										
1,2-Dichloroethane-d4 (Surr) 94 72 - 130										
Toluene-d8 (Surr) 103 70 - 130										

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

Lab Sample ID: MB 720-162464/1-A

Matrix: Water

Analysis Batch: 162462

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 162464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		07/07/14 07:56	07/07/14 14:00	1
Surrogate									
MB %Recovery MB Qualifier Limits Prepared Analyzed Dil Fac									
Capric Acid (Surr) 0.003 0 - 5 07/07/14 07:56 07/07/14 14:00 1									
p-Terphenyl 102 31 - 150 07/07/14 07:56 07/07/14 14:00 1									

Lab Sample ID: LCS 720-162464/2-A

Matrix: Water

Analysis Batch: 162462

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 162464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Diesel Range Organics [C10-C28]	2500	1840		ug/L		74	32 - 119
Surrogate							
LCS %Recovery LCS Qualifier Limits Prepared Analyzed Dil Fac							
p-Terphenyl 109 31 - 150 07/07/14 07:56 07/07/14 14:00 1							

Lab Sample ID: LCSD 720-162464/3-A

Matrix: Water

Analysis Batch: 162462

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 162464

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD
Diesel Range Organics [C10-C28]	2500	1680		ug/L		67	32 - 119	9
Surrogate								
LCSD %Recovery LCSD Qualifier Limits Prepared Analyzed RPD								
p-Terphenyl 107 31 - 150 07/07/14 07:56 07/07/14 14:00 35								

TestAmerica Pleasanton

QC Association Summary

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

TestAmerica Job ID: 720-58352-1

GC/MS VOA

Analysis Batch: 162180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58352-1	MW-1	Total/NA	Water	8260B/CA_LUFT MS	1
720-58352-2	MW-2	Total/NA	Water	8260B/CA_LUFT MS	2
720-58352-3	MW-3	Total/NA	Water	8260B/CA_LUFT MS	3
720-58352-4	MW-4	Total/NA	Water	8260B/CA_LUFT MS	4
720-58352-5	MW-5	Total/NA	Water	8260B/CA_LUFT MS	5
LCS 720-162180/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	6
LCS 720-162180/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	7
LCSD 720-162180/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	8
LCSD 720-162180/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	9
MB 720-162180/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	10

Analysis Batch: 162199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58352-6	MW-6	Total/NA	Water	8260B/CA_LUFT MS	1
720-58352-6 MS	MW-6	Total/NA	Water	8260B/CA_LUFT MS	2
720-58352-6 MSD	MW-6	Total/NA	Water	8260B/CA_LUFT MS	3
720-58352-7	MW-7	Total/NA	Water	8260B/CA_LUFT MS	4
720-58352-8	MW-8	Total/NA	Water	8260B/CA_LUFT MS	5
720-58352-9	MW-9	Total/NA	Water	8260B/CA_LUFT MS	6
720-58352-10	MW-10	Total/NA	Water	8260B/CA_LUFT MS	7
LCS 720-162199/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	8
LCS 720-162199/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	9
LCSD 720-162199/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	10
LCSD 720-162199/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	11
MB 720-162199/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	12

Analysis Batch: 162237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58352-11	MW-11	Total/NA	Water	8260B/CA_LUFT MS	1
720-58352-11 MS	MW-11	Total/NA	Water	8260B/CA_LUFT MS	2
720-58352-11 MSD	MW-11	Total/NA	Water	8260B/CA_LUFT MS	3

TestAmerica Pleasanton

QC Association Summary

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

TestAmerica Job ID: 720-58352-1

GC/MS VOA (Continued)

Analysis Batch: 162237 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-162237/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	5
LCSD 720-162237/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	6
MB 720-162237/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	7

Analysis Batch: 162277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58352-3	MW-3	Total/NA	Water	8260B/CA_LUFT MS	9
720-58352-4	MW-4	Total/NA	Water	8260B/CA_LUFT MS	10
720-58352-5	MW-5	Total/NA	Water	8260B/CA_LUFT MS	11
LCS 720-162277/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	12
LCS 720-162277/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	13
LCSD 720-162277/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	14
LCSD 720-162277/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-162277/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

GC Semi VOA

Analysis Batch: 162462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-162464/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	162464
LCSD 720-162464/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	162464
MB 720-162464/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	162464

Analysis Batch: 162463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58352-3	MW-3	Silica Gel Cleanup	Water	8015B	162464
720-58352-4	MW-4	Silica Gel Cleanup	Water	8015B	162464
720-58352-5	MW-5	Silica Gel Cleanup	Water	8015B	162464
720-58352-6	MW-6	Silica Gel Cleanup	Water	8015B	162464
720-58352-7	MW-7	Silica Gel Cleanup	Water	8015B	162464
720-58352-8	MW-8	Silica Gel Cleanup	Water	8015B	162464

Prep Batch: 162464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58352-3	MW-3	Silica Gel Cleanup	Water	3510C SGC	
720-58352-4	MW-4	Silica Gel Cleanup	Water	3510C SGC	
720-58352-5	MW-5	Silica Gel Cleanup	Water	3510C SGC	
720-58352-6	MW-6	Silica Gel Cleanup	Water	3510C SGC	
720-58352-7	MW-7	Silica Gel Cleanup	Water	3510C SGC	
720-58352-8	MW-8	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-162464/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-162464/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	

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QC Association Summary

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

TestAmerica Job ID: 720-58352-1

GC Semi VOA (Continued)

Prep Batch: 162464 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-162464/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

1

2

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TestAmerica Pleasanton

Lab Chronicle

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-1

Date Collected: 06/30/14 11:35
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	162180	07/01/14 14:32	PDR	TAL PLS

Client Sample ID: MW-2

Date Collected: 06/30/14 12:45
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		200	162180	07/01/14 15:01	PDR	TAL PLS

Client Sample ID: MW-3

Date Collected: 06/30/14 09:25
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	162180	07/01/14 15:31	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		5	162277	07/02/14 14:01	PDR	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			162464	07/07/14 07:56	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	162463	07/07/14 18:58	JL	TAL PLS

Client Sample ID: MW-4

Date Collected: 06/30/14 10:35
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	162180	07/01/14 16:00	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		20	162277	07/02/14 14:30	PDR	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			162464	07/07/14 07:56	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	162463	07/07/14 19:23	JL	TAL PLS

Client Sample ID: MW-5

Date Collected: 06/30/14 11:05
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	162180	07/01/14 16:29	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	162277	07/02/14 14:59	PDR	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			162464	07/07/14 07:56	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	162463	07/07/14 19:47	JL	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

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

TestAmerica Job ID: 720-58352-1

Client Sample ID: MW-6

Date Collected: 06/30/14 09:45
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	162199	07/01/14 15:25	PDR	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			162464	07/07/14 07:56	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	162463	07/07/14 20:12	JL	TAL PLS

Client Sample ID: MW-7

Date Collected: 06/30/14 10:10
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		5	162199	07/01/14 15:54	PDR	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			162464	07/07/14 07:56	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	162463	07/07/14 20:36	JL	TAL PLS

Client Sample ID: MW-8

Date Collected: 06/30/14 12:20
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	162199	07/01/14 16:22	PDR	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			162464	07/07/14 07:56	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	162463	07/07/14 21:00	JL	TAL PLS

Client Sample ID: MW-9

Date Collected: 06/30/14 12:00
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		5	162199	07/01/14 16:51	PDR	TAL PLS

Client Sample ID: MW-10

Date Collected: 06/30/14 08:55
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	162199	07/01/14 17:19	PDR	TAL PLS

Client Sample ID: MW-11

Date Collected: 06/30/14 08:30
Date Received: 06/30/14 14:10

Lab Sample ID: 720-58352-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	162237	07/01/14 23:32	PDR	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

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

TestAmerica Job ID: 720-58352-1

Laboratory References:

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

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Certification Summary

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

TestAmerica Job ID: 720-58352-1

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	01-31-16

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TestAmerica Pleasanton

Method Summary

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

TestAmerica Job ID: 720-58352-1

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

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Sample Summary

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

TestAmerica Job ID: 720-58352-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-58352-1	MW-1	Water	06/30/14 11:35	06/30/14 14:10
720-58352-2	MW-2	Water	06/30/14 12:45	06/30/14 14:10
720-58352-3	MW-3	Water	06/30/14 09:25	06/30/14 14:10
720-58352-4	MW-4	Water	06/30/14 10:35	06/30/14 14:10
720-58352-5	MW-5	Water	06/30/14 11:05	06/30/14 14:10
720-58352-6	MW-6	Water	06/30/14 09:45	06/30/14 14:10
720-58352-7	MW-7	Water	06/30/14 10:10	06/30/14 14:10
720-58352-8	MW-8	Water	06/30/14 12:20	06/30/14 14:10
720-58352-9	MW-9	Water	06/30/14 12:00	06/30/14 14:10
720-58352-10	MW-10	Water	06/30/14 08:55	06/30/14 14:10
720-58352-11	MW-11	Water	06/30/14 08:30	06/30/14 14:10

TestAmerica Pleasanton

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

720-58352

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
154672
TestAmerica Laboratories, Inc.

7/11/2014

Client Contact	Project Manager: Kristene Tidwell	Site Contact/Sampler: Alex Martinez	Date:	COC No:	
Broadbent & Associates, Inc. 4820 Business Center Drive, Suite 110 Fairfield, CA 94534 Phone: 707-455-7290 Fax: 707-863-9046 Project Name: Arcadis 11126 1700 Powell Street, Emeryville, CA P O # GP09BPNA.C044	Tel/Fax: 707-455-7290 / 707-863-9046 Analysis Turnaround Time Calendar (C) or Work Days (W) TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day	Lab Contact: Dimple Sharma	Carrier:	of COCs	
				Job No	
				SDG No.	
				Sample Specific Notes	
MW-1	6/30/2014 1135	GRAB AQ 3	X		
MW-2	6/30/2014 1245	GRAB AQ 3	X		
MW-3	6/30/2014 0925	GRAB AQ 5	X X		
MW-4	6/30/2014 1035	GRAB AQ 5	X X		
MW-5	6/30/2014 1105	GRAB AQ 5	X X		
MW-6	6/30/2014 0945	GRAB AQ 5	X X		
MW-7	6/30/2014 1010	GRAB AQ 5	X X		
MW-8	6/30/2014 1220	GRAB AQ 5	X X		
MW-9	6/30/2014 1200	GRAB AQ 3	X		
MW-10	6/30/2014 0855	GRAB AQ 3	X		
MW-11	6/30/2014 0830	GRAB AQ 3	X		
TB-11126-06302014	- - -	AQ 2		On Hold	
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4= HNO ₃ ; 5= NaOH; 6= Other					
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months		
Special Instructions: <i>0.6°C</i>					
Relinquished by: <i>Alex Martinez</i>	Company: TAO	Date/Time: 1410 6/30/14	Received by: <i>Outsourcer</i>	Company: TAO	Date/Time: 1410 6/30/14
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:



720-58352 Chain of Custody

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 720-58352-1

Login Number: 58352

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Gonzales, Justinn

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!

<u>Submittal Type:</u>	GEO_REPORT
<u>Report Title:</u>	First and Second Quarter 2014 Semi-Annual Groundwater Monitoring Report
<u>Report Type:</u>	Monitoring Report - Semi-Annually
<u>Report Date:</u>	8/6/2014
<u>Facility Global ID:</u>	T0600100208
<u>Facility Name:</u>	BP #11126
<u>File Name:</u>	CA-11126 BP - 1Q2Q2014 GWMR.pdf
<u>Organization Name:</u>	ARCADIS
<u>Username:</u>	ARCADISBP
<u>IP Address:</u>	70.39.231.183
<u>Submittal Date/Time:</u>	8/6/2014 2:53:39 PM
<u>Confirmation Number:</u>	4065055191

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