Atlantic Richfield Company

Chuck Carmel
Environmental Business Manager

PO Box 1257
San Ramon, CA 94583
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RECEIVED

3:55 pm, Apr 30, 2010

Alameda County
Environmental Health

30 April 2010

Re: First Quarter 2010 Semi-Annual Ground-Water Monitoring Report
Former BP Service Station #11104
1716 Webster Street
Alameda, California
ACEH Case #RO0000281

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

Submitted by,

Chuck Carmel
Environmental Business Manager

Attachment

First Quarter 2010 Semi-Annual
Ground-Water Monitoring Report
Former BP Service Station #11104
1716 Webster Street, Alameda, California
ACEH Case #RO0000281

Prepared for

Mr. Chuck Carmel
Environmental Business Manager
Atlantic Richfield Company
P.O. Box 1257
San Ramon, California 94583

Prepared by

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

1324 Mangrove Avenue, Suite 212
Chico, California 95926
(530) 566-1400
www.broadbentinc.com

30 April 2010

Project No. 06-88-644

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
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BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

30 April 2010

Project No. 06-88-644

Atlantic Richfield Company
P.O. Box 1257
San Ramon, California 94583
Submitted via ENFOS

Attn.: Mr. Chuck Carmel

Re: First Quarter 2010 Semi-Annual Ground-Water Monitoring Report, Former BP Service Station #11104, 1716 Webster Street, Alameda, Alameda County, California
ACEH Case #RO0000281

Dear Mr. Carmel:

Provided herein is the *First Quarter 2010 Semi-Annual Ground-Water Monitoring Report* for Former BP Service Station #11104 located at 1716 Webster Street, Alameda, California (Site). This report presents a summary of results from semi-annual ground-water monitoring conducted at the Site during the First Quarter of 2010.

Should you have questions regarding the work performed or results obtained, please do not hesitate to contact me at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.
Senior Engineer

Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp site)
Ms. Shelby Lathrop, ConocoPhillips, 76 Broadway, Sacramento, California 95818
Electronic copy uploaded to GeoTracker

STATION #11104 SEMI-ANNUAL GROUND-WATER MONITORING REPORT

Facility: #11104 Address:	1716 Webster Street, Alameda, California
BP Environmental Business Manager:	Mr. Chuck Carmel
Consulting Co./Contact Persons:	Broadbent & Associates, Inc./Rob Miller & Tom Venus (530) 566-1400
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case #RO0000281
Consultant Project No.:	06-88-644

WORK PERFORMED THIS QUARTER (First Quarter 2010):

1. Prepared and submitted *Fourth Quarter 2010 Status Report* (BAI, 1/22/2010).
2. Conducted semi-annual ground-water monitoring/sampling for First Quarter 2010 on 18 February 2010. Work performed by BAI.

WORK PROPOSED FOR NEXT QUARTER (Second Quarter 2010):

1. Prepare and submit this *First Quarter 2010 Semi-Annual Ground-Water Monitoring Report* (contained herein).
2. No environmental work activities are scheduled to be conducted at the Site during the Second Quarter 2010.

RESULTS SUMMARY:

Current phase of project:	**Ground-water monitoring/sampling**
Frequency of ground-water monitoring:	**Semi-Annually (1Q & 3Q): Wells MW-1 through MW-5 and RW-1**
Frequency of ground-water sampling:	**Semi-Annually (1Q & 3Q): Wells MW-1 and RW-1** **Annually (1Q): Wells MW-2 through MW-5**
Is free product (FP) present on-site:	**No**
Current remediation techniques:	**NA**
Depth to ground water (below TOC):	**4.57 ft (RW-1) to 5.80 ft (MW-3)**
General ground-water flow direction:	**North-Northwest**
Approximate hydraulic gradient:	**0.008 ft/ft**

DISCUSSION:

First Quarter 2010 semi-annual ground-water monitoring and sampling was conducted at Station #11104 by BAI on 18 February 2010. Water levels were gauged in the six wells associated with Station #11104. No irregularities were noted during water level gauging at Station #11104. Depth to water measurements at the Site ranged from 4.57 ft at well RW-1 to 5.80 ft at MW-3. Resulting ground-water surface elevations at the Site ranged from 7.58 ft above datum (assigned) in well MW-3 to 6.02 ft at well MW-5. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the north-northwest at 0.008 ft/ft. Ground-water monitoring field data sheets are provided within Appendix A. Measured depths to ground water and respective ground-water elevations are summarized in Table 1. Current and historic ground-water flow directions and gradients are provided within Table 3. A Site Location Map is provided as Drawing 1.

Consistent with the current ground-water monitoring schedule for the Site, water samples were collected from Station #11104 wells MW-1 through MW-5, and RW-1. No irregularities were encountered during sampling at the Site. Samples were submitted under chain-of-custody protocol to

Calscience Environmental Laboratories, Inc. (Garden Grove, California) for analysis of Gasoline Range Organics (GRO, C6-12) by EPA Method 8015B; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Di-Isopropyl Ether (DIPE), Tert-Amyl Methyl Ether (TAME), Tert-Butyl Alcohol (TBA), 1,2-Dibromo-methane (EDB), 1,2-Dichloroethane (1,2-DCA), and Ethanol by EPA Method 8260B. No significant irregularities were reported during analysis of the samples. Ground-water sampling field data sheets and the laboratory analytical report, including chain-of-custody documentation, are provided in Appendix A.

Gasoline range organics (GRO) were detected above the laboratory reporting limits in one of the six wells sampled (MW-1) at a concentration of 2,700 micrograms per liter (µg/L). Benzene was detected above the laboratory reporting limit in MW-1 at a concentration of 32 µg/L. Toluene was detected above the laboratory reporting limit in well MW-1 at a concentration of 7.6 µg/L. Ethylbenzene was detected above the laboratory reporting limit in well MW-1 at a concentration of 42 µg/L. Total Xylenes were detected above the laboratory reporting in MW-1 at a concentration of 95 µg/L. MTBE was detected above the laboratory reporting limit in two of the six wells sampled at concentrations of 48 µg/L in well MW-1 and 6.1 µg/L in well RW-1. TBA was detected above the laboratory reporting limit in well MW-1 at a concentration of 160 µg/L. TAME was detected above the laboratory reporting limit in well MW-1 at a concentration of 2.8 µg/L. The remaining fuel constituents were not detected above their respective laboratory reporting limits in the six wells sampled this quarter. Historic laboratory analytical results for the Site are summarized in Table 1 and Table 2. The most recent GRO, Benzene, and MTBE concentrations are also presented in Drawing 2. Ground-water monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix B.

CONCLUSIONS AND RECOMMENDATIONS:

Ground-water elevations were between the historic minimum and maximum values for each well gauged this quarter at Station #11104. The potentiometric ground-water flow direction and gradient of 0.008 ft/ft to the north-northwest was generally consistent with historical data. Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well.

Conestoga-Rover & Associates (CRA) has historically sampled nearby Chevron Station #9-0290 quarterly. Recently, CRA modified the ground-water monitoring and sampling schedule at Chevron Station #9-0290 to occur semi-annually during the second and fourth calendar quarters of the year. Due to this modification, co-monitoring analytical data from Chevron Station #9-0290 was not available for inclusion in the First Quarter 2010 Semi-Annual Ground-Water Monitoring Report for Station #11104. Former BP Station #11104 has been monitored and sampled during the first and third calendar quarters since 1996. BAI recommends that BP Service Station #11104 continue semi-annual monitoring during the first and third calendar quarters of the year. If the data from joint monitoring is considered imperative, BAI recommends that CRA be directed by ACEH to modify the recently changed sampling schedule at Chevron Station #9-0290 from the second and fourth calendar quarters of the year to the first and third calendar quarters. Unless directed by ACEH, no change to the monitoring program at Station #11104 is presently deemed warranted or recommended.

CLOSURE:

The findings presented in this report are based upon: observations of BAI field personnel (see Appendices A), the points investigated, and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (Garden Grove, California). Our services were performed in

accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company (a BP affiliated company). It is possible that variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

ATTACHMENTS:

Drawing 1. Site Location Map, Station #11104, 1716 Webster Street, Alameda, California

Drawing 2. Ground-Water Elevation Contour and Analytical Summary Map, 18 February 2010, Station #11104, 1716 Webster Street, Alameda, California

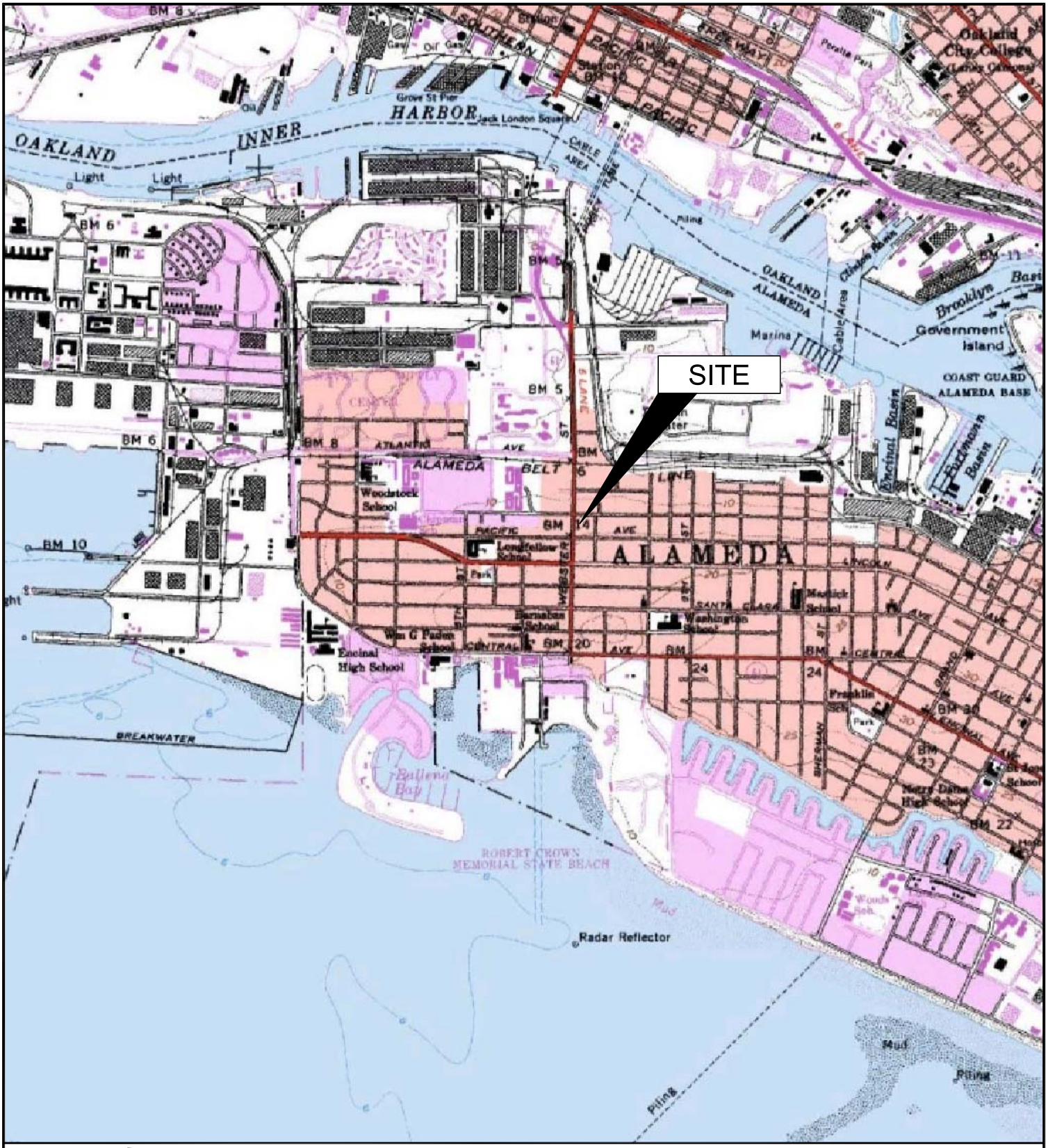
Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #11104, 1716 Webster St., Alameda, California

Table 2. Summary of Fuel Additives Analytical Data, Station #11104, 1716 Webster St., Alameda, California

Table 3. Historical Ground-Water Flow Direction and Gradient, Station #11104, 1716 Webster St., Alameda, California

Appendix A. BAI Ground-Water Sampling Data Package (Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Analytical Report with Chain-of-Custody Documentation, and Field Procedures)

Appendix B. GeoTracker Upload Confirmation Receipts



N

0 2000 4000

APPROXIMATE SCALE (ft)

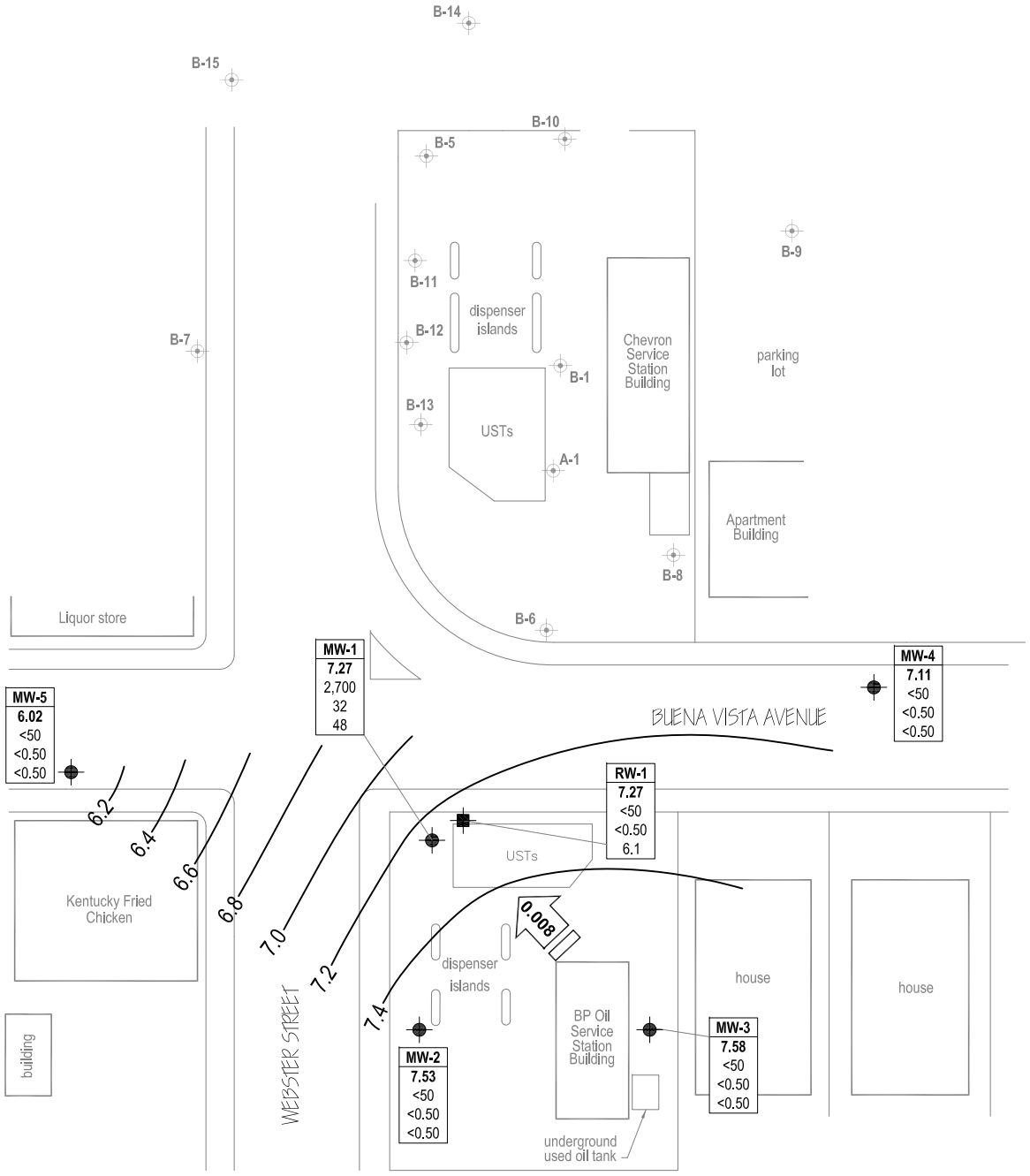
IMAGE SOURCE: USGS

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 06-88-644 Date: 9/1/09

Station #11104
1716 Webster Street
Alameda, California

Site Location Map

Drawing
1



LEGEND

- Monitoring well
- Ground-water recovery well
- Chevron monitoring well
- 0.008 — Ground-water flow direction and gradient (ft/MSL)
- 7.0 — Ground-water elevation contour (Feet above site datum)
- Well — Well designation
- ELEV — Ground-water elevation (ft/MSL)
- GRO / Benzene / MTBE — GRO, Benzene and MTBE concentrations in ground water (µg/L)
- < — Not detected at or above laboratory reporting limits
- NM/NS — Not Measured/Not sampled
- NA — Not Analyzed
- * — Elevation not used for contouring

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

N

0 60 120
SCALE (ft)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California
Project No.: 06-88-644 Date: 04/19/10

Station #11104
1716 Webster Street
Alameda, California

Ground-Water Elevation Contour and Analytical Summary Map
18 February 2010

Drawing
2

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-1															
7/21/1992	--	11.98	5.91	--	6.07	34,000	7,000	1,700	2,500	6,900	--	--	--	--	
10/20/1992	--	11.98	6.66	--	5.32	--	--	--	--	--	--	--	--	--	
3/5/1993	--	11.98	4.56	--	7.42	--	--	--	--	--	--	--	--	--	
4/1/1993	--	11.98	4.57	--	7.41	--	--	--	--	--	--	--	--	--	
7/9/1993	--	11.98	--	--	--	79,000	16,000	1,500	2,200	7,700	12,952	--	PACE	--	c, d, k
7/9/1993	--	11.98	5.25	--	6.73	77,000	15,000	1,400	2,100	7,400	11,919	--	PACE	--	c, k
10/8/1993	--	11.98	6.01	--	5.97	42,000	7,100	270	2,700	4,700	--	--	PACE	--	k
1/6/1994	--	11.98	6.24	--	5.74	45,000	12,000	4,300	3,000	6,700	--	--	PACE	--	k
4/26/1994	--	11.98	5.26	--	6.72	39,000	6,500	500	1,800	1,200	16,663	6.3	PACE	--	c, k
7/25/1994	--	11.98	5.60	--	6.38	38,000	6,300	240	1,500	1,100	26,428	1.7	PACE	--	c, k
10/13/1994	--	11.98	6.15	--	5.83	25,000	6,300	130	1,300	830	--	2.3	PACE	--	k
10/13/1994	--	11.98	--	--	--	25,000	7,300	120	1,200	740	--	--	PACE	--	d, k
1/17/1995	--	11.98	4.19	--	7.79	7,800	3,100	1,100	460	850	--	7.9	ATI	--	
1/17/1995	--	11.98	--	--	--	8,400	3,100	1,200	470	1,000	--	--	ATI	--	d
3/31/1995	--	11.98	4.48	--	7.50	37,000	6,700	6,900	1,200	4,500	--	6.4	ATI	--	
3/31/1995	--	11.98	--	--	--	40,000	6,900	7,300	1,300	5,000	--	--	ATI	--	d
5/1/1995	--	11.98	4.39	--	7.59	--	--	--	--	--	--	--	--	--	
7/12/1995	--	11.98	5.02	--	6.96	29,000	7,000	300	1,500	3,900	--	7.2	ATI	--	
7/12/1995	--	11.98	--	--	--	29,000	6,600	380	1,500	3,900	--	--	ATI	--	d
10/12/1995	--	11.98	--	--	--	20,000	3,500	310	1,100	3,000	14,000	--	ATI	--	d
10/12/1995	--	11.98	5.68	--	6.30	20,000	3,400	310	1,100	3,000	15,000	6.3	ATI	--	
2/27/1996	--	11.98	4.18	--	7.80	18,000	4,400	2,900	860	2,380	5,500	7.9	SPL	--	
5/8/1996	--	11.98	4.89	--	7.09	--	--	--	--	--	--	--	--	--	
5/9/1996	--	11.98	--	--	--	14,000	2,300	1,900	540	3,340	2,700	6.1	SPL	--	
8/9/1996	--	11.98	5.13	--	6.85	--	--	--	--	--	--	--	--	--	
8/12/1996	--	11.98	--	--	--	13,000	2,800	190	1,300	3,040	1,800	7.1	SPL	--	
11/7/1996	--	11.98	5.65	--	6.33	12,000	2,100	35	<25	<25	2,100	7.2	SPL	--	
2/10/1997	--	11.98	--	--	--	180,000	2,100	<500	<500	<500	160,000	--	SPL	--	d
2/10/1997	--	11.98	4.80	--	7.18	180,000	1,900	<500	<500	<500	160,000	6.8	SPL	--	
8/4/1997	--	11.98	5.69	--	6.29	14,000	2,700	<50	1,200	1,220	250,000	7.2	SPL	--	
8/4/1997	--	11.98	--	--	--	<25000	2,600	<50	1,200	1,100	260,000	--	SPL	--	d

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-1 Cont.															
1/27/1998	--	11.98	3.96	--	8.02	390,000	4,400	4,300	1,600	2,890	490,000	6.4	SPL	--	
9/2/1998	--	11.98	5.03	--	6.95	230,000	3,900	<50	1,900	1,000	230,000	6.3	SPL	--	
2/24/1999	--	11.98	4.94	--	7.04	82,000	3,000	520	2,600	3,200	190000/200000	--	SPL	--	h
8/30/1999	--	11.98	6.31	--	5.67	11,000	2,100	<25	1,800	580	48,000	--	SPL	--	
2/21/2000	--	11.98	4.47	--	7.51	12,000 i	1,200	250	930	1,800	31,000	--	PACE	--	i
8/8/2000	--	11.98	5.59	--	6.39	4,500	160	2.8	76	88	60,000	--	PACE	--	
2/12/2001	--	11.98	6.04	--	5.94	14,000	363	<12.5	108	293	18,000	--	PACE	--	
8/13/2001	--	11.98	6.44	--	5.54	14,000	161	17.1	255	545	5,590	--	PACE	--	
2/4/2002	--	11.98	4.49	--	7.49	17,000	176	57.9	538	1,670	2,470	--	PACE	--	
8/29/2002	--	11.98	5.22	--	6.76	4,800 l	180	43	130	540	3,100	--	SEQ	--	l
2/5/2003	--	11.98	5.43	--	6.55	770	29	9.8	4.2	47	590 m,n	--	SEQ	--	m,n
8/14/2003	--	11.98	6.34	--	5.64	5,400	210	<50	90	200	4,500	--	SEQ	--	p
02/12/2004	P	11.98	4.55	--	7.43	2,600	140	20	87	170	1,200	--	SEQM	6.8	
08/12/2004	P	11.98	5.22	--	6.76	5,700	500	12	41	1,400	260	--	SEQM	6.3	
02/10/2005	P	11.98	4.48	--	7.50	2,400	120	10	72	110	730	--	SEQM	6.1	
08/11/2005	P	11.98	4.60	--	7.38	4,600	500	13	44	870	190	--	SEQM	6.8	
02/09/2006	P	11.98	4.47	--	7.51	2,600	180	12	96	230	380	--	SEQM	7.0	
8/10/2006	--	11.98	4.77	--	7.21	7,000	720	17	62	870	47	--	TAMC	6.7	
2/8/2007	P	11.98	5.13	--	6.85	2,200	100	6.3	53	120	130	5.52	TAMC	6.82	
8/8/2007	P	11.98	5.47	--	6.51	1,500	78	4.9	43	120	140	4.32	TAMC	7.04	t (BZ, EBZ, XYLENES, MTBE)
2/22/2008	P	11.98	4.40	--	7.58	4,400	130	71	390	1,200	59	5.01	CEL	7.06	
8/13/2008	P	11.98	5.55	--	6.43	7,500	220	16	130	1,600	370	0.48	CEL	8.13	
2/11/2009	P	11.98	5.51	--	6.47	1,900	26	<2.0	15	35	68	0.57	CEL	6.62	
8/27/2009	P	11.98	5.45	--	6.53	3,300	37	2.4	9.5	650	20	0.61	CEL	7.51	
2/18/2010	**P**	**11.98**	**4.71**	**--**	**7.27**	**2,700**	**32**	**7.6**	**42**	**95**	**48**	**0.81**	**CEL**	**6.80**	
MW-2															
7/21/1992	--	12.98	6.44	--	6.54	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
10/20/1992	--	12.98	7.39	--	5.59	--	--	--	--	--	--	--	--	--	
3/5/1993	--	12.98	4.91	--	8.07	--	--	--	--	--	--	--	--	--	
4/1/1993	--	12.98	4.92	--	8.06	--	--	--	--	--	--	--	--	--	

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-2 Cont.															
7/9/1993	--	12.98	5.60	--	7.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	k
10/8/1993	--	12.98	6.50	--	6.48	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	k
10/8/1993	--	12.98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	d, k
1/6/1994	--	12.98	6.25	--	6.73	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	k
4/26/1994	--	12.98	5.73	--	7.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0	7.5	PACE	--	k
7/25/1994	--	12.98	6.07	--	6.91	<50	<0.5	<0.5	<0.5	<0.5	11.59	2.4	PACE	--	k
10/13/1994	--	12.98	6.80	--	6.18	<50	<0.5	<0.5	<0.5	<0.5	--	2.4	PACE	--	k
1/17/1995	--	12.98	5.10	--	7.88	--	--	--	--	--	--	--	--	--	
3/31/1995	--	12.98	4.69	--	8.29	<50	<0.50	<0.50	<0.50	<1.0	--	7.3	ATI	--	
5/1/1995	--	12.98	5.23	--	7.75	--	--	--	--	--	--	--	--	--	
7/12/1995	--	12.98	5.40	--	7.58	--	--	--	--	--	--	--	--	--	
10/12/1995	--	12.98	6.06	--	6.92	<50	<0.50	<0.50	<0.50	<1.0	<5.0	6.9	ATI	--	
2/27/1996	--	12.98	4.66	--	8.32	<50	<0.5	<1	<1	<1	<10	8.7	SPL	--	
5/8/1996	--	12.98	5.28	--	7.70	--	--	--	--	--	--	--	--	--	
8/9/1996	--	12.98	5.59	--	7.39	<50	<0.5	<1.0	<1.0	<1.0	<10	7.8	SPL	--	
11/7/1996	--	12.98	6.11	--	6.87	--	--	--	--	--	--	--	--	--	
2/10/1997	--	12.98	5.26	--	7.72	--	--	--	--	--	--	--	--	--	
8/4/1997	--	12.98	6.14	--	6.84	<50	<0.5	<1.0	<1.0	<1.0	<10	6.5	SPL	--	
1/27/1998	--	12.98	4.42	--	8.56	--	--	--	--	--	--	--	--	--	
9/2/1998	--	12.98	5.47	--	7.51	100	0.56	3.6	<1.0	3	110	6.9	SPL	--	
2/24/1999	--	12.98	5.12	--	7.86	<50	<1.0	<1.0	<1.0	<1.0	8.2	--	SPL	--	
8/30/1999	--	12.98	6.60	--	6.38	--	--	--	--	--	--	--	--	--	
2/21/2000	--	12.98	4.64	--	8.34	<50	<0.5	<0.5	<0.5	<0.5	0.72	--	PACE	--	
2/12/2001	--	12.98	5.13	--	7.85	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	PACE	--	
2/4/2002	--	12.98	5.63	--	7.35	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	PACE	--	
8/29/2002	--	12.98	5.79	--	7.19	--	--	--	--	--	--	--	--	--	
2/5/2003	--	12.98	5.61	--	7.37	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	SEQ	--	n
8/14/2003	--	12.98	--	--	--	--	--	--	--	--	--	--	--	--	o
02/12/2004	P	12.98	5.19	--	7.79	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.4	p
08/12/2004	--	12.98	6.17	--	6.81	--	--	--	--	--	--	--	--	--	
02/10/2005	P	12.98	5.01	--	7.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	5.9	

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MTBE				
MW-2 Cont.															
08/11/2005	--	12.98	6.39	--	6.59	--	--	--	--	--	--	--	--	--	
02/09/2006	P	12.98	4.80	--	8.18	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.8	
8/10/2006	--	12.98	6.18	--	6.80	--	--	--	--	--	--	--	--	--	
2/8/2007	P	12.98	5.67	--	7.31	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.94	TAMC	7.04	
8/8/2007	--	12.98	6.00	--	6.98	--	--	--	--	--	--	--	--	--	
2/22/2008	P	12.98	5.15	--	7.83	52	<0.50	<0.50	<0.50	<0.50	<0.50	5.81	CEL	7.12	
8/13/2008	--	12.98	6.20	--	6.78	--	--	--	--	--	--	--	--	--	
2/11/2009	P	12.98	6.02	--	6.96	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.90	CEL	6.73	
8/27/2009	--	12.98	6.12	--	6.86	--	--	--	--	--	--	--	--	--	
2/18/2010	**P**	**12.98**	**5.45**	**--**	**7.53**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.31**	**CEL**	**6.56**	
MW-3															
7/21/1992	--	13.38	7.07	--	6.31	<50	0.95	<0.5	<0.5	<0.5	--	--	--	--	e
10/20/1992	--	13.38	8.06	--	5.32	--	--	--	--	--	--	--	--	--	
3/5/1993	--	13.38	5.16	--	8.22	--	--	--	--	--	--	--	--	--	
4/1/1993	--	13.38	5.25	--	8.13	--	--	--	--	--	--	--	--	--	
7/9/1993	--	13.38	5.80	--	7.58	<50	0.6	<0.5	<0.5	<0.5	--	--	PACE	--	k
10/8/1993	--	13.38	7.17	--	6.21	<50	0.6	<0.5	<0.5	<0.5	--	--	PACE	--	k
1/6/1994	--	13.38	6.94	--	6.44	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	k
4/26/1994	--	13.38	6.18	--	7.20	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.1	PACE	--	k
7/25/1994	--	13.38	6.67	--	6.71	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.2	PACE	--	k
10/13/1994	--	13.38	7.43	--	5.95	<50	<0.5	<0.5	<0.5	<0.5	--	2.1	PACE	--	k
1/17/1995	--	13.38	5.07	--	8.31	--	--	--	--	--	--	--	--	--	
3/31/1995	--	13.38	4.03	--	9.35	<50	<0.50	<0.50	<0.50	<1.0	--	6.6	ATI	--	
5/1/1995	--	13.38	4.94	--	8.44	--	--	--	--	--	--	--	--	--	
7/12/1995	--	13.38	5.80	--	7.58	--	--	--	--	--	--	--	--	--	
10/12/1995	--	13.38	6.64	--	6.74	<50	<0.50	<0.50	<0.50	<1.0	<5.0	6.4	ATI	--	
2/27/1996	--	13.38	4.75	--	8.63	<50	<0.5	<1	<1	<1	<10	8.5	SPL	--	
5/8/1996	--	13.38	5.86	--	7.52	--	--	--	--	--	--	--	--	--	
8/9/1996	--	13.38	5.70	--	7.68	<50	<0.5	<1.0	<1.0	<1.0	<10	7.9	SPL	--	
11/7/1996	--	13.38	6.21	--	7.17	--	--	--	--	--	--	--	--	--	

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-3 Cont.															
2/10/1997	--	13.38	5.14	--	8.24	--	--	--	--	--	--	--	--	--	
8/4/1997	--	13.38	6.01	--	7.37	<50	<0.5	<1.0	<1.0	<1.0	<10	6.6	SPL	--	
1/27/1998	--	13.38	4.30	--	9.08	--	--	--	--	--	--	--	--	--	
9/2/1998	--	13.38	5.80	--	7.58	<50	<0.5	2.2	<1.0	<1.0	<10	6.6	SPL	--	
2/24/1999	--	13.38	4.34	--	9.04	<50	<1.0	<1.0	<1.0	<1.0	<1.0	--	SPL	--	
8/30/1999	--	13.38	6.59	--	6.79	--	--	--	--	--	--	--	--	--	
2/21/2000	--	13.38	4.56	--	8.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	PACE	--	
2/12/2001	--	13.38	4.98	--	8.40	--	--	--	--	--	--	--	--	--	j
2/4/2002	--	13.38	6.11	--	7.27	--	--	--	--	--	--	--	--	--	j
8/29/2002	--	13.38	6.22	--	7.16	--	--	--	--	--	--	--	--	--	j
2/5/2003	--	13.38	--	--	--	--	--	--	--	--	--	--	--	--	f
8/14/2003	--	13.38	--	--	--	--	--	--	--	--	--	--	--	--	o
02/12/2004	P	13.38	4.94	--	8.44	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.0	p
08/12/2004	--	13.38	6.22	--	7.16	--	--	--	--	--	--	--	--	--	
02/10/2005	P	13.38	5.45	--	7.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	5.1	
08/11/2005	--	13.38	5.77	--	7.61	--	--	--	--	--	--	--	--	--	r
02/09/2006	P	13.38	5.17	--	8.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.7	
8/10/2006	--	13.38	5.86	--	7.52	--	--	--	--	--	--	--	--	--	
2/8/2007	P	13.38	6.00	--	7.38	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.34	TAMC	7.04	
8/8/2007	--	13.38	6.68	--	6.70	--	--	--	--	--	--	--	--	--	
2/22/2008	P	13.38	5.38	--	8.00	54	<0.50	<0.50	<0.50	<0.50	<0.50	3.81	CEL	6.87	
8/13/2008	--	13.38	6.37	--	7.01	--	--	--	--	--	--	--	--	--	
2/11/2009	P	13.38	6.70	--	6.68	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.79	CEL	7.18	
8/27/2009	--	13.38	6.78	--	6.60	--	--	--	--	--	--	--	--	--	
2/18/2010	**P**	**13.38**	**5.80**	**--**	**7.58**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.39**	**CEL**	**6.12**	
MW-4															
3/5/1993	--	11.80	4.81	--	6.99	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
4/1/1993	--	11.80	4.80	--	7.00	--	--	--	--	--	--	--	--	--	
7/9/1993	--	11.80	5.54	--	6.26	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	k
10/8/1993	--	11.80	6.28	--	5.52	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	k

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-4 Cont.															
1/6/1994	--	11.80	5.82	--	5.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	PACE	--	k
4/26/1994	--	11.80	5.50	--	6.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	7.4	PACE	--	k
7/25/1994	--	11.80	5.83	--	5.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	7.2	PACE	--	k
10/13/1994	--	11.80	6.26	--	5.54	<50	<0.5	<0.5	<0.5	<0.5	--	6.7	PACE	--	k
1/17/1995	--	11.80	4.19	--	7.61	--	--	--	--	--	--	--	--	--	
3/31/1995	--	11.80	3.96	--	7.84	<50	<0.50	<0.50	<0.50	<1.0	--	7.1	ATI	--	
5/1/1995	--	11.80	4.49	--	7.31	--	--	--	--	--	--	--	--	--	
7/12/1995	--	11.80	5.16	--	6.64	--	--	--	--	--	--	--	--	--	
10/12/1995	--	11.80	5.80	--	6.00	<50	<0.50	<0.50	<0.50	<1.0	<5.0	6.9	ATI	--	
2/27/1996	--	11.80	4.22	--	7.58	<50	<0.5	<1	<1	<1	<10	8.9	SPL	--	
5/8/1996	--	11.80	5.00	--	6.80	--	--	--	--	--	--	--	--	--	
8/9/1996	--	11.80	5.13	--	6.67	<50	<0.5	<1.0	<1.0	<1.0	<10	8.5	SPL	--	
11/7/1996	--	11.80	5.65	--	6.15	--	--	--	--	--	--	--	--	--	
2/10/1997	--	11.80	4.81	--	6.99	--	--	--	--	--	--	--	--	--	
8/4/1997	--	11.80	5.72	--	6.08	<50	<0.5	<1.0	<1.0	<1.0	<10	6.4	SPL	--	
1/27/1998	--	11.80	4.06	--	7.74	--	--	--	--	--	--	--	--	--	
9/2/1998	--	11.80	4.89	--	6.91	<50	<0.5	<1.0	<1.0	<1.0	<10	5.8	SPL	--	
2/24/1999	--	11.80	3.89	--	7.91	<50	<1.0	<1.0	<1.0	<1.0	<1.0	--	SPL	--	
8/30/1999	--	11.80	5.62	--	6.18	--	--	--	--	--	--	--	--	--	
2/21/2000	--	11.80	4.00	--	7.80	<50	<0.5	<0.5	<0.5	<0.5	0.66	--	PACE	--	
2/12/2001	--	11.80	4.93	--	6.87	<50	<0.5	<0.5	<0.5	<0.5	0.982	--	PACE	--	
2/4/2002	--	11.80	4.49	--	7.31	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	PACE	--	
8/29/2002	--	11.80	5.38	--	6.42	--	--	--	--	--	--	--	--	--	
2/5/2003	--	11.80	4.50	--	7.30	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	SEQ	--	n
8/14/2003	--	11.80	--	--	--	--	--	--	--	--	--	--	--	--	o
02/12/2004	P	11.80	4.41	--	7.39	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.3	p
08/12/2004	--	11.80	5.20	--	6.60	--	--	--	--	--	--	--	--	--	
02/10/2005	P	11.80	4.43	--	7.37	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	5.5	
08/11/2005	--	11.80	5.09	--	6.71	--	--	--	--	--	--	--	--	--	
02/09/2006	P	11.80	4.32	--	7.48	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.8	
7/26/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

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Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-4 Cont.															
8/10/2006	--	11.80	5.07	--	6.73	--	--	--	--	--	--	--	--	--	
2/8/2007	P	11.80	5.10	--	6.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.63	TAMC	7.07	
8/8/2007	--	11.80	5.55	--	6.25	--	--	--	--	--	--	--	--	--	
2/22/2008	P	11.80	4.35	--	7.45	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.61	CEL	6.88	
8/13/2008	--	11.80	5.70	--	6.10	--	--	--	--	--	--	--	--	--	
2/11/2009	P	11.80	6.58	--	5.22	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.66	CEL	6.36	
8/27/2009	--	11.80	5.64	--	6.16	--	--	--	--	--	--	--	--	--	
2/18/2010	**P**	**11.80**	**4.69**	**--**	**7.11**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.92**	**CEL**	**6.37**	
MW-5															
4/1/1993	--	11.62	4.77	--	6.85	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
7/9/1993	--	11.62	5.40	--	6.22	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	k
10/8/1993	--	11.62	5.87	--	5.75	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	k
1/6/1994	--	11.62	5.75	--	5.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	PACE	--	k
4/26/1994	--	11.62	5.49	--	6.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	7.1	PACE	--	k
7/25/1994	--	11.62	5.69	--	5.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	6.6	PACE	--	k
10/13/1994	--	11.62	6.03	--	5.59	<50	<0.5	<0.5	<0.5	<0.5	--	3.0	PACE	--	k
1/17/1995	--	11.62	4.74	--	6.88	--	--	--	--	--	--	--	--	--	
3/31/1995	--	11.62	4.58	--	7.04	<50	<0.50	<0.50	<0.50	<1.0	--	7.1	ATI	--	
5/1/1995	--	11.62	4.79	--	6.83	--	--	--	--	--	--	--	--	--	
7/12/1995	--	11.62	5.32	--	6.30	--	--	--	--	--	--	--	--	--	
10/12/1995	--	11.62	5.70	--	5.92	<50	<0.50	<0.50	<0.50	<1.0	<5.0	6.7	ATI	--	
2/27/1996	--	11.62	--	--	--	--	--	--	--	--	--	--	--	--	f
5/8/1996	--	11.62	4.91	--	6.71	--	--	--	--	--	--	--	--	--	
8/9/1996	--	11.62	5.01	--	6.61	<50	<0.5	<1.0	<1.0	<1.0	<10	7.7	SPL	--	
11/7/1996	--	11.62	5.54	--	6.08	--	--	--	--	--	--	--	--	--	
2/10/1997	--	11.62	4.66	--	6.96	--	--	--	--	--	--	--	--	--	
8/4/1997	--	11.62	5.51	--	6.11	<50	<0.5	<1.0	<1.0	<1.0	<10	6.9	SPL	--	
1/27/1998	--	11.62	4.01	--	7.61	--	--	--	--	--	--	--	--	--	
9/2/1998	--	11.62	5.17	--	6.45	<50	<0.5	<1.0	<1.0	<1.0	<10	6.4	SPL	--	
2/24/1999	--	11.62	4.52	--	7.10	<50	<1.0	<1.0	<1.0	<1.0	<1.0	--	SPL	--	

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Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-5 Cont.															
8/30/1999	--	11.62	6.02	--	5.60	--	--	--	--	--	--	--	--	--	
2/21/2000	--	11.62	4.62	--	7.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	PACE	--	
2/12/2001	--	11.62	4.80	--	6.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	PACE	--	
2/4/2002	--	11.62	4.63	--	6.99	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	PACE	--	
8/29/2002	--	11.62	5.15	--	6.47	--	--	--	--	--	--	--	--	--	
2/5/2003	--	11.62	4.36	--	7.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	SEQ	--	
8/14/2003	--	11.62	--	--	--	--	--	--	--	--	--	--	--	--	o
02/12/2004	--	11.62	--	--	--	--	--	--	--	--	--	--	--	--	f
08/12/2004	--	11.62	4.91	--	6.71	--	--	--	--	--	--	--	--	--	
02/10/2005	P	11.62	4.54	--	7.08	<50	<0.50	<0.50	<0.50	<0.50	0.90	--	SEQM	6.1	
08/11/2005	--	11.62	4.92	--	6.70	--	--	--	--	--	--	--	--	--	
02/09/2006	--	11.62	--	--	--	--	--	--	--	--	--	--	--	--	s
8/10/2006	--	11.62	5.07	--	6.55	--	--	--	--	--	--	--	--	--	
2/8/2007	P	11.62	5.10	--	6.52	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.01	TAMC	7.20	
8/8/2007	--	11.62	5.42	--	6.20	--	--	--	--	--	--	--	--	--	
2/22/2008	P	11.62	4.20	--	7.42	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.52	CEL	7.25	
8/13/2008	--	11.62	5.27	--	6.35	--	--	--	--	--	--	--	--	--	
2/11/2009	P	11.62	4.81	--	6.81	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.87	CEL	6.71	
8/27/2009	--	11.62	4.99	--	6.63	--	--	--	--	--	--	--	--	--	
2/18/2010	**P**	**11.62**	**5.60**	**--**	**6.02**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.35**	**CEL**	**6.87**	
QC-2															
7/9/1993	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	g,k
10/8/1993	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	g,k
1/6/1994	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	PACE	--	g,k
4/26/1994	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	PACE	--	g,k
7/25/1994	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	PACE	--	g,k
10/13/1994	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	PACE	--	g,k
1/17/1995	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1	--	--	ATI	--	g
3/31/1995	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	ATI	--	g
7/12/1995	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	ATI	--	g

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
QC-2 Cont.															
10/12/1995	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	--	ATI	--	g
2/27/1996	--	--	--	--	--	<50	<0.5	<1	<1	<1	<10	--	SPL	--	g
5/9/1996	--	--	--	--	--	<50	<0.5	<1	<1	<1	<10	--	SPL	--	g
RW-1															
1/6/1994	--	11.84	--	--	--	24,000	3,700	210	830	2,000	4,562	--	PACE	--	c,d,k
1/6/1994	--	11.84	5.59	--	6.25	23,000	3,800	210	840	2,100	4,663	--	PACE	--	c,k
4/26/1994	--	11.84	5.21	--	6.63	24,000	3,500	120	800	1,700	8,145	6.4	PACE	--	c,k
4/26/1994	--	11.84	--	--	--	22,000	3,300	110	700	1,700	6,909	--	PACE	--	c,d,k
7/25/1994	--	11.84	5.52	--	6.32	31,000	4,800	290	1,100	1,700	<5.0	5.5	PACE	--	c,k
7/25/1994	--	11.84	--	--	--	28,000	4,400	240	960	1,400	20,608	--	PACE	--	c,d,k
10/13/1994	--	11.84	6.05	--	5.79	20,000	4,200	46	990	440	--	6.8	PACE	--	k
1/17/1995	--	11.84	4.02	--	7.82	9,600	1,500	65	300	2,700	--	7.7	ATI	--	
3/31/1995	--	11.84	3.81	--	8.03	16,000	1,500	780	370	2,000	--	7.8	ATI	--	
5/1/1995	--	11.84	4.21	--	7.63	--	--	--	--	--	--	--	--	--	
7/12/1995	--	11.84	4.93	--	6.91	22,000	3,700	150	950	2,800	--	7.2	ATI	--	
10/12/1995	--	11.84	5.46	--	6.38	30,000	1,600	1,500	1,700	8,500	4,300	7.0	ATI	--	
2/27/1996	--	11.84	--	--	--	1,600	30	23	38	420	50	--	SPL	--	d
2/27/1996	--	11.84	4.00	--	7.84	1,800	30	24	41	440	52	7.7	SPL	--	
5/8/1996	--	11.84	4.65	--	7.19	--	--	--	--	--	--	--	--	--	
5/9/1996	--	11.84	--	--	--	2,900	15	15	78	700	<50	--	SPL	--	d
5/9/1996	--	11.84	--	--	--	3,200	19	19	97	800	<50	7.1	SPL	--	
8/9/1996	--	11.84	4.96	--	6.88	--	--	--	--	--	--	--	--	--	
8/12/1996	--	11.84	--	--	--	6,900	210	270	390	1,920	<100	7.9	SPL	--	
8/12/1996	--	11.84	--	--	--	8,200	270	330	450	2,330	<100	--	SPL	--	d
11/7/1996	--	11.84	--	--	--	6,800	360	45	<10	<10	500	--	SPL	--	d
11/7/1996	--	11.84	5.50	--	6.34	6,100	320	45	<10	<10	430	6.9	SPL	--	
2/10/1997	--	11.84	3.85	--	7.99	170,000	<120	<250	<250	<250	150,000	6.7	SPL	--	
8/4/1997	--	11.84	4.72	--	7.12	<25000	580	450	630	3,700	230,000	6.9	SPL	--	
1/27/1998	--	11.84	3.80	--	8.04	52,000	380	330	490	2,970	38,000	6.1	SPL	--	
1/27/1998	--	11.84	--	--	--	51,000	380	300	480	2,980	36,000	--	SPL	--	d

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
RW-1 Cont.															
9/2/1998	--	11.84	--	--	--	280,000	2,400	<50	1,400	3,170	270,000	--	SPL	--	d
9/2/1998	--	11.84	4.91	--	6.93	260,000	2,500	56	1,400	3,070	250,000	6.6	SPL	--	
2/24/1999	--	11.84	4.16	--	7.68	120	<1.0	<1.0	1.5	13	130/140	--	SPL	--	h
8/30/1999	--	11.84	5.52	--	6.32	3,100	320	<25	120	28	60,000	--	SPL	--	
2/21/2000	--	11.84	3.68	--	8.16	340 i	8.6	1.8	11	66	2,500	--	PACE	--	i
8/8/2000	--	11.84	4.85	--	6.99	1,600	3.2	<0.5	0.82	1.2	19,000	--	PACE	--	
2/12/2001	--	11.84	4.26	--	7.58	1,500	1.33	<0.5	<0.5	5.69	2,420	--	PACE	--	
8/13/2001	--	11.84	5.34	--	6.50	290	<0.5	<0.5	<0.5	<1.5	314	--	PACE	--	
2/4/2002	--	11.84	4.08	--	7.76	570	9.15	0.874	19.2	83.8	97.4	--	PACE	--	
8/29/2002	--	11.84	5.12	--	6.72	<50	0.59	<0.50	<0.50	<0.50	19	--	SEQ	--	
2/5/2003	--	11.84	5.21	--	6.63	<50	<0.50	<0.50	0.68	1.7	18	--	SEQ	--	n
8/14/2003	--	11.84	5.07	--	6.77	<500	<5.0	<5.0	<5.0	5.4	490	--	SEQ	--	p
02/12/2004	P	11.84	4.19	--	7.65	120	1.6	<1.0	3.0	4.1	51	--	SEQM	5.9	
08/12/2004	P	11.84	5.11	--	6.73	170	6.9	<0.50	4.5	10	57	--	SEQM	6.0	
02/10/2005	P	11.84	4.15	--	7.69	64	1.6	<0.50	0.94	<0.50	39	--	SEQM	5.9	
08/11/2005	P	11.84	4.82	--	7.02	480	6.5	<0.50	7.0	14	40	--	SEQM	6.5	
02/09/2006	P	11.84	3.95	--	7.89	<50	1.3	<0.50	0.83	0.80	7.8	--	SEQM	6.9	
8/10/2006	--	11.84	4.90	--	6.94	780	43	<1.0	150	200	9.9	--	TAMC	6.5	
2/8/2007	P	11.84	5.03	--	6.81	140	4.0	<1.0	<1.0	1.8	14	4.17	TAMC	6.99	
8/8/2007	P	11.84	5.40	--	6.44	150	4.4	<0.50	<0.50	1.9	3.0	3.92	TAMC	6.91	
2/22/2008	P	11.84	4.13	--	7.71	120	0.87	<0.50	<0.50	<0.50	13	3.68	CEL	6.78	
8/13/2008	P	11.84	5.50	--	6.34	1,900	60	2.2	4.1	670	9.0	0.45	CEL	8.72	
2/11/2009	P	11.84	5.35	--	6.49	220	14	<0.50	<0.50	<0.50	6.2	0.54	CEL	6.92	
8/27/2009	P	11.84	5.40	--	6.44	630	11	0.87	<0.50	180	9.9	0.58	CEL	7.23	
2/18/2010	**NP**	**11.84**	**4.57**	**--**	**7.27**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**6.1**	**1.08**	**CEL**	**6.73**	

ABBREVIATIONS AND SYMBOLS:
DO = Dissolved oxygen
ft bgs = Feet below ground surface
ft MSL = Feet above mean sea level
GRO = Gasoline range organics, range C4-C12
mg/L = Milligrams per liter
MTBE = Methyl tert-butyl ether
NP = Well not purged prior to sampling
P = Well purged prior to sampling
TPH-g = Total petroleum hydrocarbons as gasoline
µg/L = Micrograms per liter
--/--- = Not applicable/available/analyzed/measured
< = Not detected at or above specified laboratory reporting limit
PACE = Pace Analytical Services, Inc.
ATI = Analytical Technologies, Inc.
SPL = Southern Petroleum Laboratories
SEQ/SEQM = Sequoia Analytical/Sequoia Morgan Hill (Laboratories)
CEL = CalScience Environmental Laboratories, Inc.
TOC = Top of casing measured in ft MSL
DTW = Depth to water measured in ft bgs
GWE = Groundwater elevation measured in ft MSL

FOOTNOTES:
a = TOC elevations surveyed in reference to USGS benchmark 14.108 ft MSL at northwest corner of Webster Street and Pacific Avenue.
b = Groundwater elevations in ft MSL.
c = A copy of the documentation for this data is included in Appendix C of Alisto report 10-155-07-001
d = Blind duplicate.
e = Sample also analyzed for cadmium, nickel, chromium, lead, and zinc. None were detected above the reported detection limit.
f = Well inaccessible.
g = Travel blank.
h = MTBE by EPA Methods 8020/8260.
i = Gasoline does not include MTBE.
j = Unable to sample.
k = A copy of the documentation for this data can be found in Baline Tech Services report 010813-N-2. No chromatograms could be located for MTBE data from wells MW-2,MW-3, MW-4, MW-5, and QC-2, sampled on July 9, 1993; all wells sampled on October 8, 1993; wells MW-1, MW-2, and MW-3, sampled on January 6, 1994; and all wells sampled on October 13, 1994.
l = Chromatogrom Pattern: Gasoline C6-C10.
m = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
n = The closing calibration was outside acceptance limits by 1% high. This should be considered inevaluating the result. The avg. % difference for all analytes met the 15% requirement and the QC suggests that calibration linearity is not a factor.
o = The original scope of work only called for annual gauging of well. This issue has been addressed, and in the future, gauging of this well will be semi-annual 1st and 3rd quarter.
p = Groundwater samples analyzed by EPA Method 8260B for TPH-g, BTEX, and MTBE.
q = Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential inclusion of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.
r = Possible obstruction in well.
s = Car parked over well.
t = Sample > 4x spike concentration.

NOTES:
During the second quarter of 2002, URS Corporation assumed groundwater monitoring activities for BP.

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008. The analysis for GRO was changed to EPA method 8015B (C6-C12) for samples collected from the time period February 5, 2008 through the present.

Note: The data within this table collected prior to April 2006 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.

Table 2. Summary of Fuel Additives Analytical Data

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
8/14/2003	<10,000	<2,000	4,500	<50	<50	89	<50	<50	a
02/12/2004	<2,000	960	1,200	<10	<10	33	<10	<10	
08/12/2004	<1,000	730	260	<5.0	<5.0	9.3	<5.0	<5.0	
02/10/2005	<1,000	2,300	730	<5.0	<5.0	26	<5.0	<5.0	b
08/11/2005	<1,000	460	190	<5.0	<5.0	10	<5.0	<5.0	
02/09/2006	<3,000	400	380	<5.0	<5.0	18	<5.0	<5.0	b, c
8/10/2006	<3,000	<200	47	<5.0	<5.0	<5.0	<5.0	<5.0	
2/8/2007	<3,000	210	130	<5.0	<5.0	7.8	<5.0	<5.0	
8/8/2007	<300	190	140	<0.50	<0.50	8.7	<0.50	<0.50	d (MTBE)
2/22/2008	<300	51	59	<0.50	<0.50	3.1	<0.50	<0.50	
8/13/2008	<3,000	340	370	<5.0	<5.0	22	<5.0	<5.0	
2/11/2009	<1,200	480	68	<2.0	<2.0	3.4	<2.0	<2.0	
8/27/2009	<1,200	180	20	<2.0	<2.0	<2.0	<2.0	<2.0	
2/18/2010	**<1,200**	**160**	**48**	**<2.0**	**<2.0**	**2.8**	**<2.0**	**<2.0**	
MW-2									
8/14/2003	--	--	--	--	--	--	--	--	
02/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/12/2004	--	--	--	--	--	--	--	--	
02/10/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
08/11/2005	--	--	--	--	--	--	--	--	
02/09/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b, c
2/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/22/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/11/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-3									
8/14/2003	--	--	--	--	--	--	--	--	
02/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/12/2004	--	--	--	--	--	--	--	--	
02/10/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b

Table 2. Summary of Fuel Additives Analytical Data

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3 Cont.									
08/11/2005	--	--	--	--	--	--	--	--	
02/09/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/22/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/11/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-4									
8/14/2003	--	--	--	--	--	--	--	--	
02/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/12/2004	--	--	--	--	--	--	--	--	
02/10/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b, c
08/11/2005	--	--	--	--	--	--	--	--	
02/09/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/22/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/11/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-5									
8/14/2003	--	--	--	--	--	--	--	--	
02/12/2004	--	--	--	--	--	--	--	--	
08/12/2004	--	--	--	--	--	--	--	--	
02/10/2005	<100	<20	0.90	<0.50	<0.50	<0.50	<0.50	<0.50	b, c
08/11/2005	--	--	--	--	--	--	--	--	
02/09/2006	--	--	--	--	--	--	--	--	
2/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/22/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/11/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
RW-1									
8/14/2003	<1,000	<200	490	<5.0	<5.0	11	<5.0	<5.0	a

Table 2. Summary of Fuel Additives Analytical Data

Station #11104, 1716 Webster St., Alameda, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
RW-1 Cont.									
02/12/2004	<200	83	51	<1.0	<1.0	1.2	<1.0	<1.0	
08/12/2004	<100	500	57	<0.50	<0.50	1.0	<0.50	<0.50	
02/10/2005	<100	69	39	<0.50	<0.50	0.68	<0.50	<0.50	b, c
08/11/2005	<100	390	40	<0.50	<0.50	1.3	<0.50	<0.50	c
02/09/2006	<300	31	7.8	<0.50	<0.50	<0.50	<0.50	<0.50	
8/10/2006	<600	190	9.9	<1.0	<1.0	<1.0	<1.0	<1.0	
2/8/2007	<600	220	14	<1.0	<1.0	<1.0	<1.0	<1.0	
8/8/2007	<300	170	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	
2/22/2008	<300	56	13	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2008	<300	38	9.0	<0.50	<0.50	<0.50	<0.50	<0.50	
2/11/2009	<300	69	6.2	<0.50	<0.50	<0.50	<0.50	<0.50	
8/27/2009	<300	100	9.9	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	**<300**	**<10**	**6.1**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

ABBREVIATIONS AND SYMBOLS:
TBA = tert-Butyl alcohol
MTBE = Methyl tert-butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
TAME = tert-Amyl Methyl ether
1,2-DCA = 1,2-Dibromoethane
EDB = 1,2-Dichloroethane
µg/L = Micrograms per liter
< = Not detected at or above specified laboratory reporting limit
-- = Not sampled/analyzed

FOOTNOTES
a = The continuing calibration was outside of client contractual acceptance limits by 3.4% low. However, it was within the method acceptance limit. The data should still be useful for its intended purpose.
b = Possible high bias for 1,2-DCA due to CCV falling outside acceptance criteria.
c = Callibration verification for ethanol was within method limits but outside contract limits.
d = Sample > 4x spike concentration.

NOTES:
All fuel oxygenate compounds analyzed using EPA Method 8260B.

Note: The data within this table collected prior to April 2006 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.

Table 3. Historical Ground-Water Flow Direction and Gradient

Station #11104, 1716 Webster St., Alameda, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
2/9/2006	North-Northwest	0.007
8/10/2006	North-Northwest	0.007
2/8/2007	North-Northwest	0.007
8/8/2007	North-Northwest	0.004
2/22/2008	North-Northwest	0.003
8/13/2008	North-Northwest	0.007
2/11/2009	Northeast	0.004
8/27/2009	Northeast	0.004
2/18/2010	**North-Northwest**	**0.008**

Note: The data within this table collected prior to April 2006 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.

APPENDIX A

BAI GROUND-WATER SAMPLING DATA PACKAGE
(Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Analytical Report with Chain-Of-Custody Documentation, and Field Procedures)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

DAILY REPORT
Page 1 of 1

Project: BP 11104 Project No.: 06-88-644

Field Representative(s): T. Geddes E. Farrar Day: Thursday Date: 2/18/10

Time Onsite: From: 1149 To: 1440; 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: Fog 50

Equipment In Use: 6 bailers, DTW probe, temp/ph/cond meter, DO meter

Visitors: _____

TIME:	WORK DESCRIPTION:
1149	Arrive 11104
1440	Depart 11104
1500	Arrive GSO Oakland
1515	Depart GSO
1618	Arrive office
	5
	4
	4.5
	4
	4
	21.5 gal

Signature: _____

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

FIELD DATA REPORT

DATE: 2/18/10
PERSONNEL: J. Galdes E Farrar
WEATHER: Fog

PROJECT NO.: 0688.644
COMMENTS:

Equip:	Geosquirt	Tubing	Bailers	DO	wli	Ec/pH

Well ID	Time	MEASURING POINT	DTW (FT)	PRODUCT THICKNESS	pH	Cond. (X100)	Temp. (C/F)	DO (mg/l)	Redox (mV)	Iron (mg/l)	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
MW-1	1232	TOC	4.71									
MW-2	1225	↓	5.45									
MW-3	1215		5.80									
MW-4	1221		4.69									
MW-5	1425		5.60									
RW-1	1232		4.57									Screen @ 2.78 ft

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-1
Project Name/Location: DP 11104 — Project #: 06-88-644
Sampler's Name: T. Gridley E. Farrar — Date: 2/18/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		15.53	feet
Depth to Water:	-	4.71	feet
Water Column Thickness:	=	10.82	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	1.73	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	5.19	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): ____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1244	0.81	-129		651.9	60.0	7.00	
2	1248	X	X	X	646.6	60.2	6.83	
5	1253	0.13	~~0.13~~ X	X	658.8	60.7	6.80	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 5 gallons
Depth to Water at Sample Collection: 4.73 feet
Sample Collection Time: 1300
Purged Dry? (Y / N)

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-2
Project Name/Location: DP 11104 Project #: 06-88-644
Sampler's Name: T Geddes & Farrar Date: 2/18/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2"	inch
Total Well Depth:		15.25	feet
Depth to Water:	-	5.45	feet
Water Column Thickness:	=	9.8	feet
Unit Casing Volume*:	x	.16	gallon / foot
Casing Water Volume:	=	1.5	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	4.7	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1343	1.31	62		4736	62.8	6.52	
2	1347	x	x	x	4759	63.8	6.54	
4	1351	2.03	x	x	429.3	64.1	6.56	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 4 gallons
Depth to Water at Sample Collection: 7.20 feet
Sample Collection Time: 1355
Purged Dry? (Y (N))

Comments: DTB 15.25

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-3
Project Name/Location: DP 11104 Project #: 06.88.644
Sampler's Name: T. Geddes R. Farrer Date: 2/18/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		15.03	feet
Depth to Water:	-	5.80	feet
Water Column Thickness:	=	9.28	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	1.48	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	4.45	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1320	1.39	32		789.9	58.5	6.33	
2	1323	X	X	X	790.8	59.2	6.15	
3.5	1326	X	X	X	799.5	59.5	6.12	
4.5	1328	X	X	X	803.4	59.6	6.12	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4.5 gallons
Depth to Water at Sample Collection: 7.80 feet
Sample Collection Time: 1335
Purged Dry? (Y / N)

Comments: TD 15.68

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-4
Project Name/Location: BP 11104 — Project #: 06-88-644
Sampler's Name: T. Geddes E. Favror — Date: 2/18/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		14.62	feet
Depth to Water:	-	4.69	feet
Water Column Thickness:	=	9.93	feet
Unit Casing Volume*:	x	1.5	gallon / foot
Casing Water Volume:	=	15	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	4.7	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1401	0.92	-3		389.4	62.0	6.44	
2	1405	X	X	X	365.7	61.9	6.36	
3	1408	X	X	X	387.2	62.3	6.36	
4	1410	X 1.21	X	X	394.7	62.5	6.37	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4 gallons
Depth to Water at Sample Collection: 5.58 feet
Sample Collection Time: 1415 — Purged Dry? (Y / (N))

Comments: OTB 14.72

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-5
Project Name/Location: BP 11104 — Project #: 06-88-644
Sampler's Name: T. Geddes E. Farrar — Date: 2/18/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		15.00 *	feet
Depth to Water:	-	5.60	feet
Water Column Thickness:	=	9.4	feet
Unit Casing Volume*:	x	.16	gallon / foot
Casing Water Volume:	=	1.5	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	4.5	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1425	1.35	-12		289.3	59.8	6.39	
2.5	1429	X	X	X	284.9	60.1	6.84	
4	1432	3.87	X	X	311.6	60.5	6.87	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4 gallons
Depth to Water at Sample Collection: 8.79 feet
Sample Collection Time: 1435
Purged Dry? (Y (N))

Comments: DTB 14.73

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: RW-1
Project Name/Location: ZD 11104 Project #: 06.88.644
Sampler's Name: T. Golden E. Farmer Date: 2/16/10
Purging Equipment: —
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 6" inch
Total Well Depth: 22.62 feet
Depth to Water: - 4.57 feet
Water Column Thickness: = feet
Unit Casing Volume*: x gallon / foot
Casing Water Volume: = gallons
Casing Volume: x 3 each
Estimated Purge Volume: = gallons
Free product measurement (if present):

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1245	1.08	-82		395.8	60.9	6.73	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
Depth to Water at Sample Collection: 4.57 feet
Sample Collection Time: 1245 Purged Dry? (Y / (N))

Comments: Screen to 2.78' below TOC
No PWSC

NO. 857334

NON-HAZARDOUS WASTE DATA FORM

1. BESI #

GENERATOR

2. Generator's Name and Mailing Address

BP WEST COAST PRODUCTS, LLC
P.O. BOX 80249
RANCHO SANTA MARGARITA, CA 92688

Generator's Site Address (if different than mailing address)

BP 11104
1716 Webster street
Alameda, CA

Generator's Phone: (949) 460-5200

24-HOUR EMERGENCY PHONE: (949) 699-3706

3. Transporter 1 Company Name — Phone #

Broadbent & Associates, Inc. — (530) 566-1400

4. Transporter 2 Company Name — Phone #

Gomes Excavating — (707) 374-2881

5. Designated Facility Name and Site Address — Phone #

INTRAT, INC.
1105 AIRPORT RD #C
RIO VISTA, CA 94571

(530) 753-1829

6. Waste Shipping Name and Description	7. Containers No.	7. Containers Type	8. Total Quantity	9. Unit Wt/Vol	10. Profile No.
A. NON-HAZARDOUS WATER	1	TT	21.5	G	
B.					
C.					
D.					

11. Special Handling Instructions and Additional Information

WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

WELL PURGING / DECON WATER

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this data form are non-hazardous.

Generator's/Offeror's Printed/Typed Name: Eric Farrar — Signature — Month: 2 — Day: 18 — Year: 10

TRANSPORTER

13. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Farrar — Signature — Month: 2 — Day: 22 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

FACILITY

14. Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR (ORIGINAL)

Calscience Environmental Laboratories, Inc.

March 04, 2010

Tom Venus
Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Subject: **Calscience Work Order No.: 10-02-1648**
Client Reference: ARCO 11104

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/19/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.	Date Received: 02/19/10
1324 Mangrove Ave, Ste 212	Work Order No: 10-02-1648
Chico, CA 95926-2642	Preparation: EPA 5030B
	Method: EPA 8015B (M)

Project: ARCO 11104

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**10-02-1648-1-E**	**02/18/10 13:00**	**Aqueous**	**GC 11**	**02/19/10**	**02/20/10 04:42**	**100219B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	2700	250	5		ug/L
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	106	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**10-02-1648-2-E**	**02/18/10 13:55**	**Aqueous**	**GC 11**	**02/19/10**	**02/20/10 05:16**	**100219B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	89	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**10-02-1648-3-E**	**02/18/10 13:35**	**Aqueous**	**GC 11**	**02/19/10**	**02/20/10 05:49**	**100219B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	89	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**10-02-1648-4-E**	**02/18/10 14:15**	**Aqueous**	**GC 11**	**02/19/10**	**02/20/10 06:23**	**100219B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	90	38-134			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/19/10
Work Order No: 10-02-1648
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 11104

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**10-02-1648-5-E**	**02/18/10 14:35**	**Aqueous**	**GC 11**	**02/19/10**	**02/20/10 06:57**	**100219B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW-1	**10-02-1648-6-E**	**02/18/10 12:45**	**Aqueous**	**GC 11**	**02/19/10**	**02/20/10 07:30**	**100219B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-757**	**N/A**	**Aqueous**	**GC 11**	**02/19/10**	**02/19/10 20:15**	**100219B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	38-134	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/19/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1648
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L
Project: ARCO 11104			Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**10-02-1648-1-A**	**02/18/10 13:00**	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10 13:13**	**100226L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	32	2.0	4		Methyl-t-Butyl Ether (MTBE)	48	2.0	4	
1,2-Dibromoethane	ND	2.0	4		Tert-Butyl Alcohol (TBA)	160	40	4	
1,2-Dichloroethane	ND	2.0	4		Diisopropyl Ether (DIPE)	ND	2.0	4	
Ethylbenzene	42	2.0	4		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	4	
Toluene	7.6	2.0	4		Tert-Amyl-Methyl Ether (TAME)	2.8	2.0	4	
Xylenes (total)	95	2.0	4		Ethanol	ND	1200	4	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	106	80-128			Dibromofluoromethane	106	80-127		
Toluene-d8	106	80-120			1,4-Bromofluorobenzene	99	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**10-02-1648-2-A**	**02/18/10 13:55**	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10 12:43**	**100226L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	105	80-128			Dibromofluoromethane	107	80-127		
Toluene-d8	94	80-120			1,4-Bromofluorobenzene	89	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**10-02-1648-3-A**	**02/18/10 13:35**	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10 16:40**	**100226L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	107	80-128			Dibromofluoromethane	108	80-127		
Toluene-d8	101	80-120			1,4-Bromofluorobenzene	91	68-120		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/19/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1648
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L
Project: ARCO 11104			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**10-02-1648-4-A**	**02/18/10 14:15**	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10 17:10**	**100226L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	112	80-128			Dibromofluoromethane	109	80-127		
Toluene-d8	96	80-120			1,4-Bromofluorobenzene	90	68-120		

MW-5	**10-02-1648-5-A**	**02/18/10 14:35**	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10 17:39**	**100226L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	112	80-128			Dibromofluoromethane	110	80-127		
Toluene-d8	99	80-120			1,4-Bromofluorobenzene	89	68-120		

RW-1	**10-02-1648-6-A**	**02/18/10 12:45**	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10 18:09**	**100226L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	6.1	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	114	80-128			Dibromofluoromethane	112	80-127		
Toluene-d8	95	80-120			1,4-Bromofluorobenzene	88	68-120		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/19/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1648
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L

Project: ARCO 11104

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-1,241**	**N/A**	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10 12:13**	**100226L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	108	80-128			Dibromofluoromethane	104	80-127		
Toluene-d8	95	80-120			1,4-Bromofluorobenzene	89	68-120		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/19/10
Work Order No: 10-02-1648
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project ARCO 11104

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-02-1665-1	**Aqueous**	**GC 11**	**02/19/10**	**02/19/10**	**100219S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	104	93	38-134	11	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/19/10
Work Order No: 10-02-1648
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO 11104

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-2	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10**	**100226S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	114	121	76-124	6	0-20	
Carbon Tetrachloride	112	127	74-134	12	0-20	
Chlorobenzene	109	115	80-120	6	0-20	
1,2-Dibromoethane	110	117	80-120	6	0-20	
1,2-Dichlorobenzene	103	112	80-120	8	0-20	
1,1-Dichloroethene	115	110	73-127	5	0-20	
Ethylbenzene	115	119	78-126	3	0-20	
Toluene	110	115	80-120	5	0-20	
Trichloroethene	111	116	77-120	4	0-20	
Vinyl Chloride	108	107	72-126	1	0-20	
Methyl-t-Butyl Ether (MTBE)	112	116	67-121	3	0-49	
Tert-Butyl Alcohol (TBA)	109	109	36-162	0	0-30	
Diisopropyl Ether (DIPE)	107	113	60-138	5	0-45	
Ethyl-t-Butyl Ether (ETBE)	113	121	69-123	6	0-30	
Tert-Amyl-Methyl Ether (TAME)	109	116	65-120	6	0-20	
Ethanol	111	105	30-180	6	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.	Date Received: N/A
1324 Mangrove Ave, Ste 212	Work Order No: 10-02-1648
Chico, CA 95926-2642	Preparation: EPA 5030B
	Method: EPA 8015B (M)

Project: ARCO 11104

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-757	**Aqueous**	**GC 11**	**02/19/10**	**02/19/10**	**100219B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	112	114	78-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: N/A
Work Order No: 10-02-1648
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 11104

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,241	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10**	**100226L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	109	111	80-120	73-127	2	0-20	
Carbon Tetrachloride	114	110	74-134	64-144	4	0-20	
Chlorobenzene	107	108	80-120	73-127	0	0-20	
1,2-Dibromoethane	107	112	79-121	72-128	4	0-20	
1,2-Dichlorobenzene	106	105	80-120	73-127	1	0-20	
1,1-Dichloroethene	117	107	78-126	70-134	9	0-28	
Ethylbenzene	115	116	80-120	73-127	1	0-20	
Toluene	110	110	80-120	73-127	0	0-20	
Trichloroethene	106	107	79-127	71-135	1	0-20	
Vinyl Chloride	107	93	72-132	62-142	14	0-20	
Methyl-t-Butyl Ether (MTBE)	109	103	69-123	60-132	5	0-20	
Tert-Butyl Alcohol (TBA)	97	100	63-123	53-133	3	0-20	
Diisopropyl Ether (DIPE)	105	99	59-137	46-150	5	0-37	
Ethyl-t-Butyl Ether (ETBE)	106	104	69-123	60-132	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	103	112	70-120	62-128	9	0-20	
Ethanol	95	96	28-160	6-182	1	0-57	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

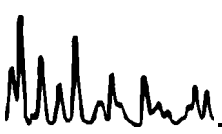
Glossary of Terms and Qualifiers

Work Order Number: 10-02-1648

Qualifier	Definition
AX	Sample too dilute to quantify surrogate.
BA	Relative percent difference out of control.
BA,AY	BA = Relative percent difference out of control. AY = Matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
BZ	Sample preserved improperly.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG,AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH,AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM,AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN,AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.

Work Order Number: 10-02-1648

Qualifier	Definition
LW	Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

1648

BP/ARC Project Name: ARCO 11104 **Req Due Date (mm/dd/yy):** STD-TAT **Rush TAT:** Yes ___ No X

BP/ARC Facility No: 11104 **Lab Work Order Number:**

Lab Name: Cal science	BP/ARC Facility Address: 1716 Webster Street	Consultant/Contractor: Broadbent & Associates, Inc.
Lab Address: 7440 Lincoln Way	City, State, ZIP Code: Alameda, CA 94501	Consultant/Contractor Project No: 06-88-644-5-822
Lab PM: Richard Villafania	Lead Regulatory Agency: ACEH	Address: 1324 Mangrove Ave. Ste. 212, Chico, CA 95926
Lab Phone: 714-895-5494 / 714-895-7501 (fax)	California Global ID No.: T0600101651	Consultant/Contractor PM: Tom Venus
Lab Shipping Accnt: 9255	Enfos Proposal No: 00G8-0004	Phone: 530-566-1400 / 530-566-1401 (fax)
Lab Bottle Order No:	Accounting Mode: Provision X OOC-BU ___ OOC-RM ___	Email EDD To: tvenus@broadbentinc.com
Other Info:	Stage: Operate (5) Activity: Monitoring/MNA (22)	Invoice To: BP/ARC X Contractor ___
BP/ARC EBM: Chuck Carmel		
EBM Phone: 925-275-3803		
EBM Email: charles.carmel@bp.com		

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: GRO (8015)	BTEX (8260)	5 Oxys (8260)	EDB (8260)	1,2-DCA (8260)	Ethanol (8260)				
1	MW-1	2/18/10	1300		X			6				X			X	X	X	X	X	X				
2	MW-2		1255		X			6				X			X	X	X	X	X	X				
3	MW-3		1335		X			6				X			X	X	X	X	X	X				
4	MW-4		1415		X			6				X			X	X	X	X	X	X				
5	MW-5		1435		X			6				X			X	X	X	X	X	X				
6	RW-1	↓	1245		X			6				X			X	X	X	X	X	X				
7	TB - 11104 - 100218	2/18/10			X			2				X												

Report Type & QC Level: Standard X; Full Data Package ___

Comments: Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

ON HOLD

Sampler's Name: Tracy Geddes	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: BAI	[illegible] / BAI	2/18/10	1500	[illegible] CE	2/19/10	1000
Shipment Method: GSO Ship Date: 2/18/10						
Shipment Tracking No: 106193652						

Special Instructions:

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

PLEASE PRESS FIRMLY

GSO GOLDEN STATE OVERNIGHT

1-800-322-5555

WWW.GSO.COM

SHIPPING AIR BILL

PACKAGE LABEL

1 FROM

DATE 2/18/10

COMPANY BAI

ADDRESS 875 Cotting Ln

ADDRESS STE/ ROOM F

CITY Vacaville ZIP CODE 95688

SENDERS NAME Paul Cobbum PHONE NUMBER

2 TO

COMPANY

NAME PHONE NUMBER

ADDRESS

ADDRESS STE/ ROOM

CITY ZIP CODE

3 YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

SPECIAL INSTRUCTIONS

4 PACKAGE INFORMATION

☐ LETTER (MAX 8 OZ)

☐ PACKAGE (WT) _____

☐ DECLARED VALUE $_____

☐ COD AMOUNT $_____ (CASH NOT ACCEPTED)

5 DELIVERY SERVICE ☐ PRIORITY OVERNIGHT BY 10:30 AM ☐ EARLY PRIORITY BY 8:00 AM ☐ SATURDAY DELIVERY

*DELIVERY TIMES MAY BE LATER IN SOME AREAS • CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGHT.

6 RELEASE SIGNATURE _____ SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

7

8 PICK UP INFORMATION _____ TIME DRIVER # ROUTE #

106193652

PEEL OFF HERE

106193652

9 GSO TRACKING NUMBER

3491

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-02- 1 6 4 8

SAMPLE RECEIPT FORM

Cooler 1 **of** 1

CLIENT: BROADBENT + ASSOCIATES, INC. **DATE:** 02/19/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.6 °C + 0.5 °C (CF) = 2.1 °C ☑ **Blank** ☐ **Sample**

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter ☐ Metals Only ☐ PCBs Only **Initial:** WB

CUSTODY SEALS INTACT:

☑ Cooler	☐_____	☐ No (Not Intact)	☐ Not Present	☐ N/A	**Initial:** WB
☐ Sample	☐_____	☐ No (Not Intact)	☑ Not Present		**Initial:**

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** (6) ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 100128B **Checked by:**

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSC

Preservative: **h:** HCL **n:** HNO3 **na$_2$:** $Na_2S_2O_3$ **Na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:**

BROADBENT & ASSOCIATES INC. FIELD PROCEDURES

A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

Field protocols have been implemented to enhance the accuracy and reliability of data collection, ground-water sample collection, transportation and laboratory analysis. Discussion of these protocols is provided below.

A.1.1 Water Level & Free-Product Measurement

Prior to ground-water sample collection from each monitoring well, the presence of separate-phase hydrocarbons (SPH or free product, FP) and depth to ground water shall be measured. Depth to ground water will be measured with a standard water level indicator that has been decontaminated prior to its use in accordance with procedures discussed below. Depth to groundwater will be gauged from a saw cut notch at the top of the well casing on each well head. Where FP is suspected, the initial gauging will be done with an oil-water interface probe. Once depth to water has been measured, the first retrieval of a new disposable bailer will be scrutinized for the presence of SPH/FP.

A.1.2 Monitoring Well Purging

Subsequent to measuring depth to ground water and prior to the collection of ground-water samples, purging of standing water within the monitoring will be performed if called for. Consistent with the American Society for Testing and Materials (ASTM) Standard D6452-99, Section 7.1, the well will be purged of approximately three wetted-casing volumes of water, or until the well is dewatered, or until monitored field parameters indicate stabilization. The well will be purged using a pre-cleaned disposable bailer or submersible pump and disposable plastic tubing dedicated to each individual well. The well will be purged at a low flow rate to minimize the possibility of purging the well dry. So that the sample collected is representative of formation water, several field parameters will be monitored during the purging process. The sample will not be collected until these parameters (i.e. temperature, pH, and conductivity) have stabilized to within 10% of the previously measured value. If a well is purged dry, the sample should not be collected until the well has recovered to a minimum 50% of its initial volume.

A.1.3 Ground-Water Sample Collection

Once the wells are satisfactorily purged, water samples will be collected from each well. Water samples for organic analyses will be collected using a pre-cleaned, new, disposable bailer and transferred into the appropriate, new, laboratory-prepared containers such that no head space or air bubbles are present in the sample container (if appropriate to the analysis). The samples will be properly labeled (i.e. sample identification, sampler initials, date/time of collection, site location, requested analyses), placed in an ice chest with bagged ice or ice substitute, and delivered to the contracted analytical laboratory.

A.1.4 Surface Water Sample Collection

Unless specified otherwise, surface water samples will be collected from mid-depth in the central area of the associated surface water body. Water samples will be collected into appropriate, new, laboratory-prepared containers by dipping the container into the surface water unless the container has a preservative present. If a sample preservative is present, a new, cleaned non-preserved surrogate container will be used to obtain the sample which will then be directly transferred into a new, laboratory-provided, preserved container. Samples will be properly labeled and transported as described above.

A.1.5 Decontamination Protocol

Prior to use in each well, re-usable ground-water sampling equipment (e.g., water level indicator, oil-interface probe, purge pump, etc.) will be decontaminated. Decontamination protocol will include thoroughly cleaning with a solution of Liquinox, rinsing with clean water, and final rinsing with control water (potable water of known quality, distilled, or de-ionized water). Pre-cleaned new disposable bailers and disposable plastic tubing will be dedicated to each individual well.

A.1.6 Chain of Custody Procedures

Sample identification documents will be carefully prepared so identification and chain of custody can be maintained and sample disposition can be controlled. The sample identification documents include Chain-of-Custody (COC) records and Daily Field Report forms. Chain of custody procedures are outlined below.

Field Custody Procedures

The field sampler is individually responsible for the care and custody of the samples collected until they are properly transferred.

Samples will have unique labels. The information on these labels will correspond to the COC which shows the identification of individual samples and the contents of the shipping container. The original COC will accompany the shipment and a copy will be retained by the field sampler.

Transfer of Custody and Shipment

A COC will accompany samples during transfer and shipment. When transferring samples, the individual relinquishing and the individual receiving the samples will each sign, date, and note the time on the COC. This documents the sample custody transfer.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis, with a separate COC accompanying each shipment. Shipments will be accompanied by the original COC. Samples will be delivered by BAI personnel to the laboratory, or shipped by responsible courier. When a shipping courier is utilized, the sample shipment number will be identified on the COC.

A.1.7 Field Records

In addition to sample identification numbers and COC records, Daily Field Report records will be maintained by field staff to provide daily records of significant events, observations, and measurements during field investigations. These documents will contain observed information such as: the personnel present, site conditions, sampling procedures, measurement procedures, calibration records, equipment used, supplies used, etc. Field measurements will be recorded on the appropriate forms. Entries on the data forms will be signed and dated. The data forms will be kept as permanent file records.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Type:	**GEO_WELL**
Submittal Title:	**1Q10 GEO_WELL 11104**
Facility Global ID:	**T0600101651**
Facility Name:	**BP #11104**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**3/19/2010 12:05:04 PM**
Confirmation Number:	**7038849830**

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Type:	**EDF - Monitoring Report - Quarterly**
Submittal Title:	**1Q10 GW Monitoring**
Facility Global ID:	**T0600101651**
Facility Name:	**BP #11104**
File Name:	**10021648.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**3/19/2010 12:06:34 PM**
Confirmation Number:	**8533135831**

VIEW QC REPORT

VIEW DETECTIONS REPORT