ARCADIS
Infrastructure, environment, facilities

ARCADIS U.S., Inc.
100 Montgomery Street, Suite 300
San Francisco, California 94105
Tel 415.374.2744
Fax 415.374.2745
www.arcadis-us.com

Re: Fourth Quarter 2009 Ground-Water Monitoring Report
Former BP Station #11124
3315 High Street
Oakland, California
ACEH Case #RO0000239

ENVIRONMENTAL

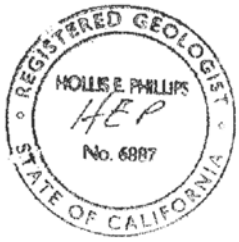
"I declare that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct."

Date:
01/19/2010

Submitted by:

ARCADIS U.S., Inc.

Hollis E. Phillips, PG
Project Manager



Contact:
Hollis E. Phillips

Phone:
415.374.2744 ext 13

Email:
Hollis.phillips@arcadis-us.com

Our ref:
GP09BPNA.C113

Fourth Quarter 2009 Ground-Water Monitoring Report
Former BP Station #11124
3315 High Street, Oakland, California
ACEH Case #RO0000239

Prepared for

Ms. Hollis Phillips, PG
Senior Geologist
ARCADIS-US, Inc.
100 Montgomery Street, Ste. 300
San Francisco, California 94104

On behalf of

Atlantic Richfield Company
PO 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

19 January 2010

Project No. 09-88-652

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
Voice (530) 566-1400
Fax (530) 566-1401

BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

19 January 2010

Project No. 09-88-652

ARCADIS-US, Inc.
100 Montgomery Street, Ste. 300
San Francisco, CA 94104

Attn.: Ms. Hollis Phillips, PG – Senior Geologist

Re: Fourth Quarter 2009 Ground-Water Monitoring Report, Former BP Station #11124, 3315 High Street, Oakland, California; ACEH Case # RO0000239

Dear Ms. Phillips:

Attached is the *Fourth Quarter 2009 Ground-Water Monitoring Report* for Former BP Station #11124 located at 3315 High Street, Oakland California (Site). This report presents a summary of results from ground-water monitoring and sampling conducted at the Site during the Fourth Quarter of 2009.

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

Sincerely,

BROADBENT & ASSOCIATES, INC.

Jason Duda
Project Scientist

Thomas A. Venus, P.E.
Senior Engineer

REGISTERED PROFESSIONAL ENGINEER
THOMAS A. VENUS
No. 54698
Expires 12-31-11
CIVIL
STATE OF CALIFORNIA

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 #11124 GROUND-WATER MONITORING REPORT

Facility: #11124 Address:	3315 High Street, Oakland, California
ARCADIS Project Manager:	Ms. Hollis Phillips, PG
Consulting Co./Contact Persons:	Broadbent & Associates, Inc.(BAI)/Jason Duda & Tom Venus (530) 566-1400
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case # RO0000239
Consultant Project No.:	09-88-652
Facility Permits/Permitting Agency:	None

WORK PERFORMED THIS QUARTER (Fourth Quarter 2009):

1. Submitted *Third Quarter 2009 Ground-Water Monitoring Report* (BAI, 10/5/2009).
2. Conducted ground-water monitoring/sampling for Fourth Quarter 2009. Work performed by BAI on 28 October 2009.

WORK PROPOSED FOR NEXT QUARTER (First Quarter 2010):

1. Prepared and submitted Fourth Quarter 2009 Ground-Water Monitoring Report (contained herein).
2. No environmental work is scheduled to be conducted at the Site during the First Quarter of 2010.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	**Ground-Water Monitoring/Sampling**
Frequency of ground-water monitoring:	**Semi-Annually (2Q & 4Q): Wells MW-1, MW-2, MW-4, MW-5 and MW-6**
Frequency of ground-water sampling:	**Semi-Annually (2Q & 4Q): Wells MW-1, MW-5 and MW-6** **Annually (2Q): Wells MW-2 and MW-4**
Is free product (FP) present on-site:	**No**
Current remediation techniques:	**NA**
Depth to ground water (below TOC):	**9.38 ft (MW-4) to 10.34 ft (MW-1)**
General ground-water flow direction:	**Southwest**
Approximate hydraulic gradient:	**0.01 ft/ft**

DISCUSSION:

Fourth quarter 2009 ground-water monitoring/sampling was conducted at Former BP Station #11124 on 28 October 2009 by BAI personnel. Water levels were gauged in the five wells at the Site. No irregularities were noted during water level gauging. Depth-to-water level measurements ranged from 9.38 ft at MW-4 to 10.34 ft at MW-1. Resulting ground-water surface elevations ranged from 147.00 ft above datum at well MW-1 to 144.96 ft at well MW-2. 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. A Site Location Map is provided as Drawing 1. Potentiometric ground-water elevation contours are presented in Drawing 2.

Consistent with the current ground-water sampling schedule, water samples were collected from wells MW-1, MW-5, and MW-6. No irregularities were reported during sampling. Samples were submitted to TestAmerica Laboratories, Inc. (Pleasanton, California) under chain-of-custody protocol for laboratory analysis of Gasoline Range Organics (GRO, C6-C12); Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX); Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Ethanol, 1,2-Dichloroethane (1,2-DCA), 1,2-Dibromomethane (EDB), Di-Isopropyl Ether (DIPE), Tert-Butyl Alcohol

(TBA), and Tert-Amyl Methyl Ether (TAME) by EPA Method 8260B. No significant irregularities were encountered during laboratory 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.

GRO was detected above the laboratory reporting limit in two of the three wells sampled at concentrations of 81 micrograms per liter (µg/L) in well MW-6 and 370 µg/L in well MW-5. MTBE was detected above the laboratory reporting limit in two of the three wells sampled at concentrations of 120 µg/L in well MW-6 and 830 µg/L in well MW-5. TBA was detected above the laboratory reporting limit in two of the three wells sampled at concentrations of 6.5 µg/L in well MW-6 and 37 µg/L in well MW-5. TAME was detected above the laboratory reporting limit in well MW-5 at a concentration of 3.1 µg/L. Remaining fuel constituents were not detected above their respective laboratory reporting limits in the three wells sampled this quarter. Historic laboratory analytical results 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 pages are provided in Appendix B.

CONCLUSIONS AND RECOMMENDATIONS:

Water level elevations were between historic minimum and maximum ranges for each well, as summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the southwest at approximately 0.01 ft/ft, consistent with historical data (see Table 3). Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well with the exception of a recorded historic maximum of TBA in well MW-6. No environmental work is currently scheduled to be conducted at the Site during the First Quarter of 2010. Semi-annual ground-water monitoring and sampling will be conducted during the Second Quarter of 2010.

CLOSURE:

The findings presented in this report are based upon: observations of BAI field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by TestAmerica Laboratories, Inc. (Pleasanton, 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 ARCADIS-US, Inc. and 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, Former BP Service Station #11124, 3315 High St., Oakland, California

Drawing 2. Ground-Water Elevation Contours and Analytical Summary Map, 28 October 2009, Former BP Service Station #11124, 3315 High Street, Oakland, California

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Former BP Service Station #11124, 3315 High St., Oakland, California

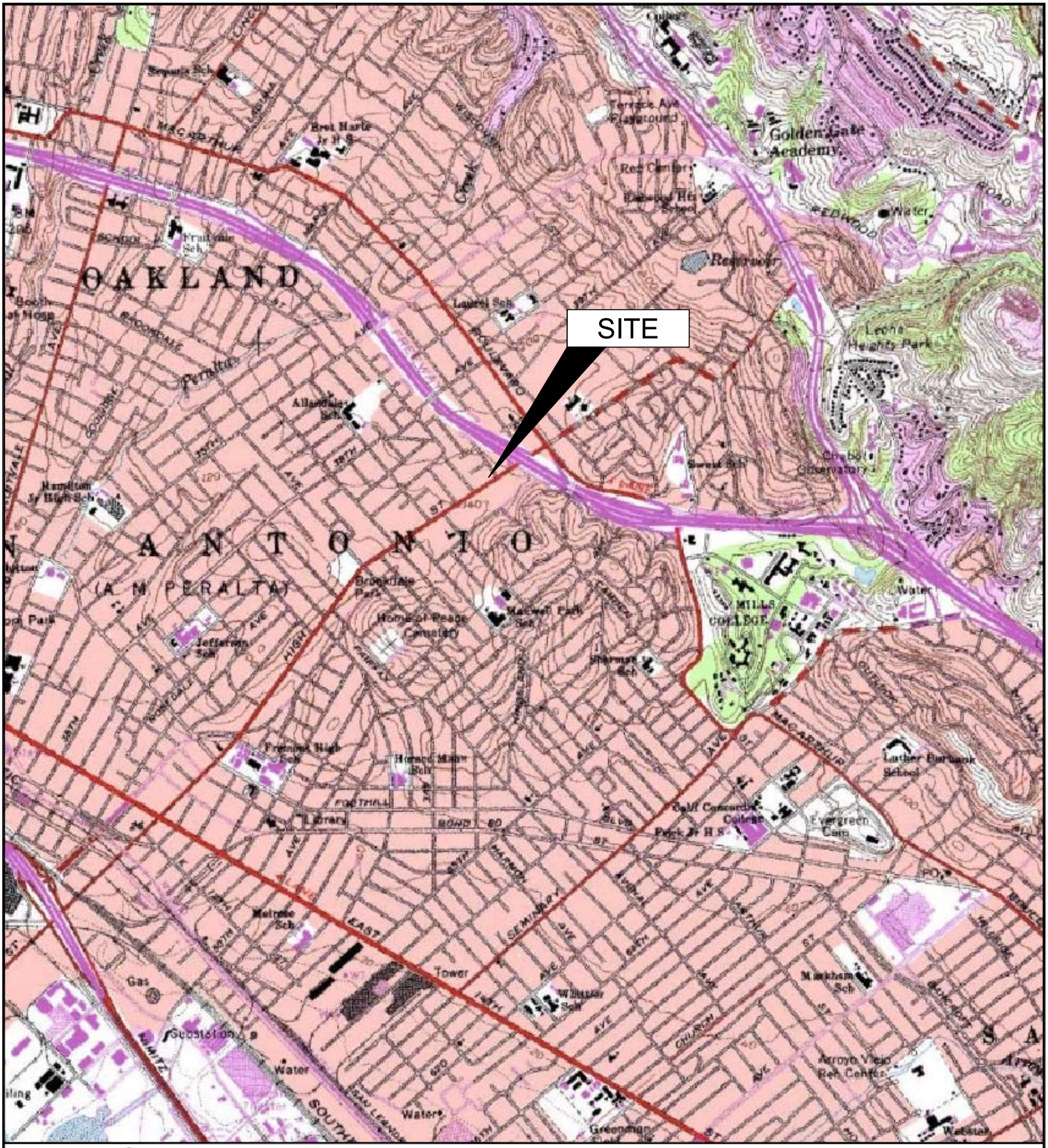


IMAGE SOURCE: USGS

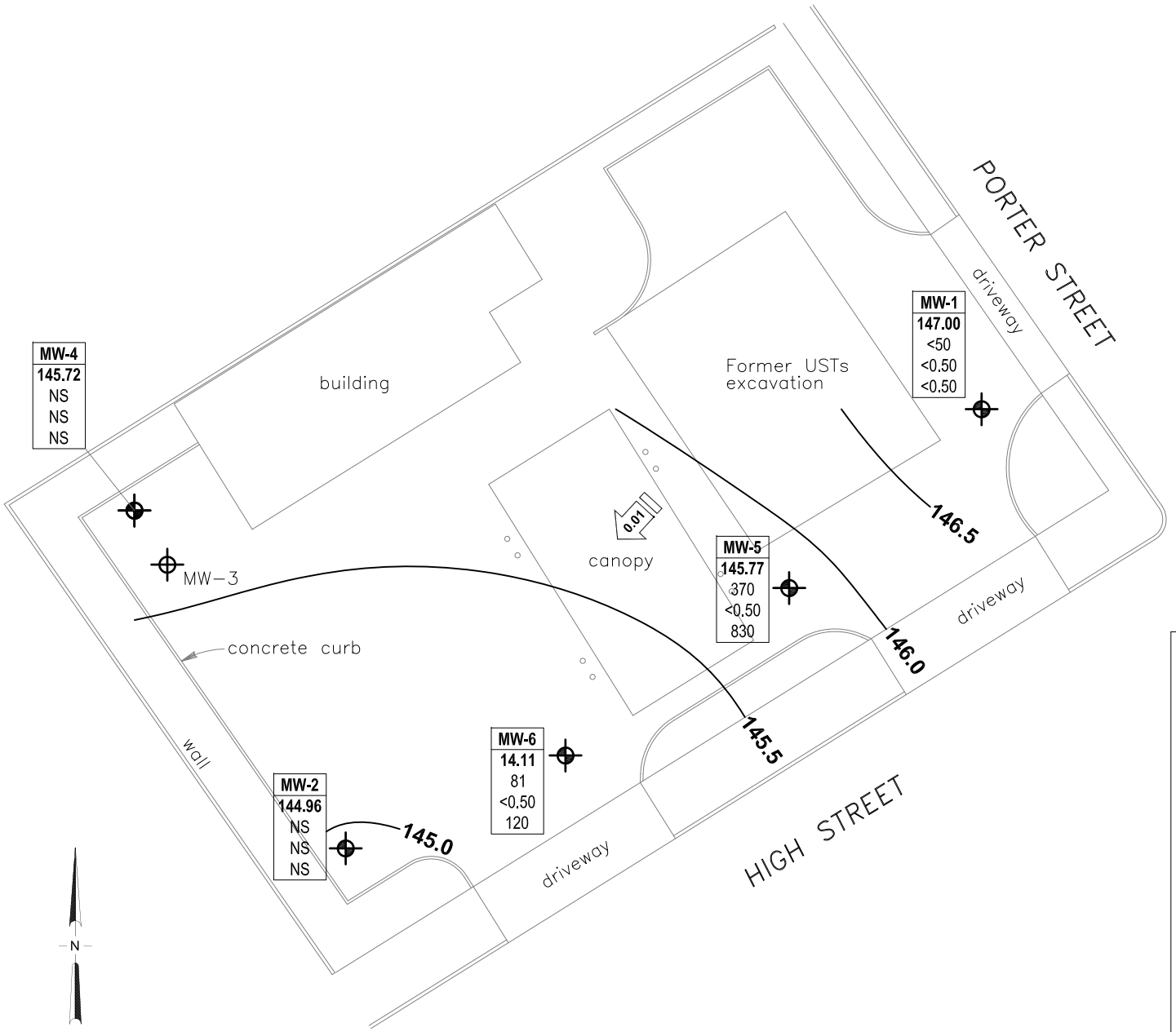
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926

Project No.: 06-88-652 Date: 09/15/09

Former Station #11124
3315 High Street
Oakland, California

Site Location Map

Drawing
1



LEGEND

- Ground-water monitoring well
- Abandoned monitoring well
- Well — Well Designation
- ELEV — Ground-water elevation (ft NAVD88)
- GRO, Benzene, MTBE — GRO, Benzene & MTBE concentrations (µg/L)
- — 145.0 — Ground-water elevation (ft above NAVD88)
- < — Not detected at or above laboratory reporting limits
- 0.01 — Ground-water flow direction and gradient (ft/ft)

NOTE: SITE MAP ADAPTED FROM STRATUS ENVIRONMENTAL, INC FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

0 30 60
SCALE (ft)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212 Chico, CA
Project No.: 09-88-652 Date: 1/5/09

Former Station #11124
3315 High Street
Oakland, California

Ground-Water Elevation Contours and Analytical Summary Map
28 October 2009

Drawing
2

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

Station #11124, 3315 High St., Oakland, CA

Well and Sample Date	P/NP	Footnote	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	DRO/ TPHd (µg/L)	TOG (µg/L)
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE					
MW-1																	
10/19/2004	P		154.99	10.50	--	144.49	<50	<0.50	<0.50	<0.50	<0.50	14	0.96	SEQM	6.9	--	--
01/13/2005	P		154.99	9.00	--	145.99	<50	<0.50	<0.50	<0.50	<0.50	33	2.5	SEQM	6.4	--	--
02/24/2006	P	c	154.99	10.42	--	144.57	55	<0.50	<0.50	<0.50	<0.50	51	--	SEQM	6.8	--	--
5/30/2006	P		154.99	10.94	--	144.05	50	<0.50	<0.50	<0.50	<0.50	58	--	SEQM	6.6	--	--
8/28/2006	P		154.99	10.61	--	144.38	50	<0.50	<0.50	<0.50	<0.50	<0.50	--	TAMC	7.0	--	--
11/2/2006	P		154.99	10.83	--	144.16	<50	<0.50	<0.50	<0.50	<0.50	9.8	1.40	TAMC	6.99	--	--
2/6/2007	P	d	157.34	9.88	--	147.46	<50	<0.50	<0.50	<0.50	<0.50	1.1	2.76	TAMC	7.10	--	--
3/13/2007	P		157.34	9.62	--	147.72	--	--	--	--	--	--	2.63	TAMC	7.30	<48	--
5/8/2007	P		157.34	9.62	--	147.72	<50	<0.50	<0.50	<0.50	<0.50	19	2.65	TAMC	7.01	<49	--
8/7/2007	P		157.34	10.82	--	146.52	<50	<0.50	<0.50	<0.50	<0.50	5.0	3.15	TAMC	7.33	<49	--
11/13/2007	--		157.34	10.52	--	146.82	--	--	--	--	--	--	4.79	TAMC	6.58	<48	--
12/20/2007	NP	e	157.34	10.47	--	146.87	<50	<0.50	<0.50	<0.50	<0.50	10	1.14	TAMC	6.97	--	--
2/29/2008	P		157.34	9.32	--	148.02	<50	<0.50	<0.50	<0.50	<0.50	7.4	3.14	CEL	7.64	<50	--
5/23/2008	P		157.34	10.73	--	146.61	<50	<0.50	<0.50	<0.50	<0.50	1.9	1.76	CEL	6.83	<50	--
8/20/2008	P		157.34	11.35	--	145.99	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.01	CEL	6.73	<50	--
11/13/2008	P		157.34	10.73	--	146.61	<50	<0.50	<0.50	<0.50	<0.50	0.92	3.96	CEL	7.07	--	--
2/5/2009	P		157.34	10.43	--	146.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.20	CEL	7.10	--	--
5/14/2009	NP		157.34	9.77	--	147.57	<50	<0.50	<0.50	<0.50	<0.50	2.6	1.63	CEL	6.43	--	--
8/4/2009	P		157.34	11.31	--	146.03	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.59	CEL	7.31	--	--
10/28/2009	**P**		**157.34**	**10.34**	--	**147.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**2.09**	**TAMC**	**6.7**	--	--
MW-2																	
10/19/2004	--	b	152.02	9.45	--	142.57	--	--	--	--	--	--	--	--	--	--	--
01/13/2005	P		152.02	6.43	--	145.59	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.47	SEQM	6.4	--	--
02/24/2006	P		152.02	7.88	--	144.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.7	--	--
5/30/2006	P		152.02	7.98	--	144.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.7	--	--
8/28/2006	P		152.02	9.38	--	142.64	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	TAMC	6.7	--	--
11/2/2006	--		152.02	9.85	--	142.17	--	--	--	--	--	--	--	--	--	--	--
2/6/2007	P	d	154.35	8.40	--	145.95	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.10	TAMC	7.02	--	--
3/13/2007	P		154.35	7.55	--	146.80	--	--	--	--	--	--	4.83	TAMC	7.17	52	--
5/8/2007	P		154.35	7.70	--	146.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.40	TAMC	7.12	<48	--

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

Station #11124, 3315 High St., Oakland, CA

Well and Sample Date	P/NP	Footnote	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	DRO/ TPHd (µg/L)	TOG (µg/L)
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE					
MW-2 Cont.																	
8/7/2007	P		154.35	9.77	--	144.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.47	TAMC	7.19	<47	--
11/13/2007	--		154.35	9.30	--	145.05	--	--	--	--	--	--	4.90	TAMC	7.02	<48	--
12/20/2007	NP	e	154.35	9.34	--	145.01	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.62	TAMC	7.44	--	--
2/29/2008	P	f	154.35	7.35	--	147.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.39	CEL	7.76	64	--
5/23/2008	P		154.35	9.28	--	145.07	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.93	CEL	7.07	<50	--
8/20/2008	P		154.35	10.74	--	143.61	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.0	CEL	6.91	<50	--
11/13/2008	P		154.35	10.11	--	144.24	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.03	CEL	7.00	--	--
2/5/2009	--		154.35	9.41	--	144.94	--	--	--	--	--	--	--	--	--	--	--
5/14/2009	NP		154.35	8.52	--	145.83	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.69	CEL	6.67	--	--
8/4/2009	--		154.35	10.58	--	143.77	--	--	--	--	--	--	--	--	--	--	--
10/28/2009	--		**154.35**	**9.39**	--	**144.96**	--	--	--	--	--	--	--	--	--	--	--
MW-4																	
10/19/2004	P		152.77	9.55	--	143.22	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.82	SEQM	7.0	--	--
01/13/2005	--	a	152.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02/24/2006	P		152.77	7.86	--	144.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.1	--	--
5/30/2006	P		152.77	8.04	--	144.73	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.9	--	--
8/28/2006	P		152.77	9.36	--	143.41	<50	<0.50	<0.50	<0.50	<0.50	16	--	TAMC	6.5	--	--
11/2/2006	P		152.77	9.92	--	142.85	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.23	TAMC	6.79	--	--
2/6/2007	P	d	155.10	8.40	--	146.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.43	TAMC	7.10	--	--
3/13/2007	P		155.10	7.56	--	147.54	--	--	--	--	--	--	2.53	TAMC	7.18	<49	--
5/8/2007	P		155.10	7.68	--	147.42	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.78	TAMC	7.28	<48	--
8/7/2007	P		155.10	9.83	--	145.27	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.70	TAMC	7.13	<48	--
11/13/2007	--		155.10	9.28	--	145.82	--	--	--	--	--	--	5.71	TAMC	7.11	<48	--
12/20/2007	NP	e	155.10	9.23	--	145.87	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.13	TAMC	7.16	--	--
2/29/2008	P		155.10	7.27	--	147.83	<50	<0.50	<0.50	<0.50	<0.50	1.5	4.26	CEL	8.03	<50	--
5/23/2008	P		155.10	9.32	--	145.78	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.43	CEL	7.11	<50	--
8/20/2008	P		155.10	10.86	--	144.24	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.01	CEL	7.10	<50	--
11/13/2008	P		155.10	10.23	--	144.87	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.97	CEL	7.09	--	--
2/5/2009	--		155.10	9.32	--	145.78	--	--	--	--	--	--	--	--	--	--	--
5/14/2009	NP		155.10	8.40	--	146.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.96	CEL	7.02	--	--

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

Station #11124, 3315 High St., Oakland, CA

Well and Sample Date	P/NP	Footnote	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	DRO/ TPHd (µg/L)	TOG (µg/L)
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE					
MW-4 Cont.																	
8/4/2009	--		155.10	10.61	--	144.49	--	--	--	--	--	--	--	--	--	--	--
10/28/2009	--		**155.10**	**9.38**	--	**145.72**	--	--	--	--	--	--	--	--	--	--	--
MW-5																	
3/13/2007	P	d	155.45	8.72	--	146.73	880	<0.50	<0.50	<0.50	<0.50	1,400	1.84	TAMC	7.36	<48	--
5/8/2007	P	c	155.45	8.42	--	147.03	920	<5.0	<5.0	<5.0	<5.0	1,300	3.26	TAMC	7.50	<48	--
8/7/2007	P	c	155.45	9.88	--	145.57	1,300	<10	<10	<10	<10	1,600	3.54	TAMC	7.34	<48	--
11/13/2007	P	c	155.45	9.68	--	145.77	950	<10	<10	<10	<10	1,400	4.68	TAMC	6.99	<48	--
2/29/2008	P		155.45	8.15	--	147.30	<50	<0.50	<0.50	<0.50	<0.50	1,100	4.84	CEL	7.93	<50	--
5/23/2008	P		155.45	9.80	--	145.65	<50	<20	<20	<20	<20	1,200	0.49	CEL	6.89	<50	--
8/20/2008	P		155.45	10.88	--	144.57	<50	<20	<20	<20	<20	1,200	3.11	CEL	6.80	<50	--
11/13/2008	P		155.45	12.10	--	143.35	<50	<20	<20	<20	<20	1,100	2.99	CEL	7.16	--	--
2/5/2009	P		155.45	9.64	--	145.81	<50	<20	<20	<20	<20	270	2.87	CEL	7.07	--	--
5/14/2009	P		155.45	9.07	--	146.38	93	<10	<10	<10	<10	470	1.67	CEL	7.02	--	--
8/4/2009	P		155.45	9.61	--	145.84	<50	<20	<20	<20	<20	890	1.60	CEL	7.13	--	--
10/28/2009	**P**		**155.45**	**9.68**	--	**145.77**	**370**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**830**	**1.1**	**TAMC**	**7.0**	--	--
MW-6																	
3/13/2007	P	d	154.59	7.82	--	146.77	86	<0.50	<0.50	<0.50	<0.50	88	1.92	TAMC	7.21	<48	--
5/8/2007	P	c	154.59	7.92	--	146.67	88	<0.50	<0.50	<0.50	<0.50	120	1.87	TAMC	7.50	<48	--
8/7/2007	P	c	154.59	9.85	--	144.74	67	<0.50	<0.50	<0.50	<0.50	85	3.60	TAMC	7.25	<47	--
11/13/2007	P	c	154.59	9.71	--	144.88	67	<1.0	<1.0	<1.0	<1.0	98	4.44	TAMC	7.16	<48	--
2/29/2008	P		154.59	8.86	--	145.73	<50	<0.50	<0.50	<0.50	<0.50	130	4.35	CEL	7.82	<50	--
5/23/2008	P		154.59	9.98	--	144.61	<50	<2.5	<2.5	<2.5	<2.5	150	0.62	CEL	7.12	<50	--
8/20/2008	P		154.59	10.98	--	143.61	<50	<2.5	<2.5	<2.5	<2.5	140	2.20	CEL	6.96	<50	--
11/13/2008	P		154.59	10.70	--	143.89	<50	<2.5	<2.5	<2.5	<2.5	160	2.30	CEL	7.13	--	--
2/5/2009	P		154.59	10.85	--	143.74	<50	<2.5	<2.5	<2.5	<2.5	160	2.34	CEL	7.06	--	--
5/14/2009	P		154.59	8.61	--	145.98	<50	<1.0	<1.0	<1.0	<1.0	66	1.81	CEL	6.98	--	--
8/4/2009	P		154.59	10.37	--	144.22	<50	<2.5	<2.5	<2.5	<2.5	140	1.86	CEL	7.27	--	--
10/28/2009	**P**		**154.59**	**9.48**	--	**145.11**	**81**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**120**	--	**CEL**	**6.8**	--	--

ABBREVIATIONS AND SYMBOLS:
--- = Not analyzed/measured/applicable
< = Not detected at or above laboratory reporting limit
DO = Dissolved oxygen
DTW = Depth to water in ft bgs
GRO = Gasoline range organics
GWE = Groundwater elevation in ft
mg/L = Milligrams per liter
MTBE = Methyl tert-butyl ether
NP = Well not purged prior to sampling
P = Well purged prior to sampling
TOC = Top of casing in ft
TPH-g = Total petroleum hydrocarbons as gasoline
µg/L = Micrograms per liter
SEQM = Sequoia Analytical Morgan Hill (Laboratory)

FOOTNOTES:
a = Well inaccessible.
b = Well is dry.
c = Hydrocarbon result for GRO partly due to individual peak(s) in quantitative range.
d = Well survey by Morrow Surveying on 12/27/2006.
e = Well re-sampled due to insufficient laboratory analysis of previous sampling event on 11/13/2007. The depth to water and resulting water level elevation from 11/13/2007 will be used for reporting purposes for Fourth Quarter 2007.
f = The hydrocarbon pattern for DRO in the sample does not match that of the diesel standard used to calculate results.

NOTES:
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 of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

Values for DO and pH were obtained through field measurements.

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 September 30, 2009. GRO analysis was changed to EPA method 8260B (C6-C12) for the time period October 1, 2009 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 #11124, 3315 High St., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
10/19/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
01/13/2005	<100	<20	33	<0.50	<0.50	<0.50	<0.50	<0.50	
02/24/2006	<300	<20	51	<0.50	<0.50	<0.50	<0.50	<0.50	
5/30/2006	<300	<20	58	<0.50	<0.50	<0.50	<0.50	<0.50	
8/28/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/2/2006	<300	<20	9.8	<0.50	<0.50	<0.50	<0.50	<0.50	
2/6/2007	<300	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	
5/8/2007	<300	<20	19	<0.50	<0.50	<0.50	<0.50	<0.50	
8/7/2007	<300	<20	5.0	<0.50	<0.50	<0.50	<0.50	<0.50	
12/20/2007	<300	<20	10	<0.50	<0.50	<0.50	<0.50	<0.50	
2/29/2008	<300	<10	7.4	<0.50	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<300	<10	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2008	<300	<10	0.92	<0.50	<0.50	<0.50	<0.50	<0.50	
2/5/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/14/2009	<300	<10	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
8/4/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2009	**<100**	**<4.0**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-2									
01/13/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/24/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/30/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/28/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/7/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/20/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/29/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

Station #11124, 3315 High St., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2 Cont.									
5/14/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
10/19/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/24/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/30/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/28/2006	<300	<20	16	<0.50	<0.50	<0.50	<0.50	<0.50	
11/2/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/7/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/20/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/29/2008	<300	<10	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/14/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-5									
3/13/2007	<3,000	<200	1,400	<5.0	<5.0	6.5	<5.0	<5.0	
5/8/2007	<3,000	<200	1,300	<0.50	<0.50	7.0	<0.50	<0.50	
8/7/2007	<6,000	<400	1,600	<10	<10	<10	<10	<10	
11/13/2007	<6,000	<400	1,400	<10	<10	<10	<10	<10	
2/29/2008	<300	42	1,100	<0.50	<0.50	4.9	<0.50	<0.50	
5/23/2008	<12,000	<400	1,200	<20	<20	<20	<20	<20	
8/20/2008	<12,000	<400	1,200	<20	<20	<20	<20	<20	
11/13/2008	<12,000	<400	1,100	<20	<20	<20	<20	<20	
2/5/2009	<12,000	<400	270	<20	<20	<20	<20	<20	
5/14/2009	<6,000	<200	470	<10	<10	<10	<10	<10	
8/4/2009	<12,000	<400	890	<20	<20	<20	<20	<20	
10/28/2009	**<100**	**37**	**830**	**<0.50**	**<0.50**	**3.1**	**<0.50**	**<0.50**	
MW-6									

Table 2. Summary of Fuel Additives Analytical Data

Station #11124, 3315 High St., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-6 Cont.									
3/13/2007	<300	<20	88	<0.50	<0.50	<0.50	<0.50	<0.50	
5/8/2007	<300	<20	120	<0.50	<0.50	0.61	<0.50	<0.50	
8/7/2007	<300	<20	85	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2007	<600	<40	98	<1.0	<1.0	<1.0	<1.0	<1.0	
2/29/2008	<300	<10	130	<0.50	<0.50	0.71	<0.50	<0.50	
5/23/2008	<1,500	<50	150	<2.5	<2.5	<2.5	<2.5	<2.5	
8/20/2008	<1,500	<50	140	<2.5	<2.5	<2.5	<2.5	<2.5	
11/13/2008	<1,500	<50	160	<2.5	<2.5	<2.5	<2.5	<2.5	
2/5/2009	<1,500	<50	160	<2.5	<2.5	<2.5	<2.5	<2.5	
5/14/2009	<600	<20	66	<1.0	<1.0	<1.0	<1.0	<1.0	
8/4/2009	<1,500	<50	140	<2.5	<2.5	<2.5	<2.5	<2.5	
10/28/2009	**<100**	**6.5**	**120**	**<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-Dichloroethane
EDB = 1,2-Dibromomethane
µg/L = micrograms per liter
< = Not detected at or above laboratory reporting limit

NOTES:
All fuel oxygenate compounds are 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 #11124, 3315 High St., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
11/12/1990	--	--
7/15/1991	Southwest	0.0174
10/15/1991	Southwest	0.0182
1/15/1992	South-Southwest	0.014
4/17/1992	South	0.014
9/30/1992	South-Southwest	0.018
12/17/1992	North	0.01
3/15/1993	South	0.007
10/19/2004	South-Southwest	0.022
1/13/2005	--	--
2/24/2006	Southeast	0.01
5/30/2006	East-Southeast	0.007
8/28/2006	South	0.012
11/2/2006	South	0.013
3/13/2007	Southwest	0.006
5/8/2007	South-Southwest	0.009
8/7/2007	Southwest	0.01
11/13/2007	Southwest	0.01
12/17/2007	Southwest	0.01
2/29/2008	Southwest	0.009
5/23/2008	Southwest	0.01
8/20/2008	Southwest	0.02
11/13/2008	Southwest	0.02
2/5/2009	Southwest	0.01
5/14/2009	Southwest	0.01
8/4/2009	Southwest	0.02
10/28/2009	**Southwest**	**0.01**

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, LABORATORY ANALYTICAL REPORT WITH CHAIN-OF-CUSTODY DOCUMENTATION, AND FIELD PROCEDURES)

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

Groundwater Sampling Data Sheet

Well I.D.: MW-1
Project Name/Location: BP 11124 Project #: 09-88-653
Sampler's Name: T. Geddes, E. Farrar Date: 10/28/09
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2"	inch
Total Well Depth:		19.39	feet
Depth to Water:	-	10.34	feet
Water Column Thickness:	=	8.98	feet
Unit Casing Volume*:	x	.16	gallon / foot
Casing Water Volume:	=	1.4	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	4.2	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	1432	2.09 mg/L			326.2	21.4	7.0	
2	1434	X	X	X	323.9	22.8	6.7	
4	1436	X	X	X	318.9	22.4	6.7	
		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: feet
Sample Collection Time: 1440 Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-5
Project Name/Location: BP 11124 Project #: 09-88-652
Sampler's Name: T. Geddes E. Farrar Date: 10/28/09
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2"	inch
Total Well Depth:		29.0	feet
Depth to Water:	-	9.68	feet
Water Column Thickness:	=	19.32	feet
Unit Casing Volume*:	x	.16	gallon / foot
Casing Water Volume:	=	3.1	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	9.3	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	1414	1.1 mg/L			552.6	21.9	7.1	
2	1416	X	X	X	533.8	21.9	7.0	
3	1418	X	X	X	532.1	21.3	7.0	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3 gallons
Depth to Water at Sample Collection: 14.28 feet
Sample Collection Time: 1426 Purged Dry? (Y / N)

Comments: Smells soapy

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

Groundwater Sampling Data Sheet

Well I.D.: MW-6
Project Name/Location: BP 11124 Project #: 09-88-652
Sampler's Name: E. Farr T Gedolé Date: 10/28/09
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		~~29.73~~	feet 29.73
Depth to Water:	-	9.48	feet
Water Column Thickness:	=	20.25	feet
Unit Casing Volume*:	x	.16	gallon / foot
Casing Water Volume:	=	3.24	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	9.72	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)~~ C°	pH	Observations
0	1350				570.9	22.9	6.9	
	1353	X	X	X	559.5	21.5	6.9	
	1356	X	X	X	563.7	21.1	6.8	
		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: _____ feet
Sample Collection Time: 1400 Purged Dry? (Y / (N))

Comments: Well pressurized. Allowed to stabalize

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

FIELD DATA REPORT

DATE: 10/28/09
PERSONNEL: T.G. E.F.
WEATHER: Sunny, breezy, 60's

PROJECT NO.: 09-88-652
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
MW2	1318		9.39									
MW-4	1320		9.38									
MW-6	1322		9.48		6.9	560	21.5					
MW-5	1414		9.68		7.0	535	21.7					
MW-1	1432		10.34		6.8	525	22.0					

G:\ADMINISTRATION\BAI FORMS\WATER LVL MEAS FORM

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-23728-1

Job Description: BP #11124, Oakland

For:
ARCADIS U.S., Inc.
155 Montgomery Street
Suite 1500
San Francisco, CA 94104

Attention: Hollis Phillips

Approved for release.
Dimple Sharma
Project Manager I
11/9/2009 4:09 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
11/09/2009

cc: Mr. Jason Duda
Mr. Ben McKenna

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.
The report shall not be reproduced except in full, without the written approval of the laboratory. The client, by accepting this report, also agrees not to alter any reports whether in the hard copy or electronic format and to use reasonable efforts to preserve the reports in the form and substance originally provided by TestAmerica.
A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

Job Narrative
720-23728-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method(s) 8260B: The Gasoline Range Organics (GRO) concentration reported for the following sample(s) is due to the presence of discrete peaks: MW-5 (720-23728-2).

Method(s) 8260B: The Gasoline Range Organics (GRO) concentration reported for the following sample(s) is due to the presence of discrete peaks: MW-6 (720-23728-3).

No other analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-23728-2	**MW-5**				
Methyl tert-butyl ether		830	10	ug/L	8260B/CA_LUFTMS
TBA		37	4.0	ug/L	8260B/CA_LUFTMS
TAME		3.1	0.50	ug/L	8260B/CA_LUFTMS
Gasoline Range Organics (GRO)-C6-C12		370	50	ug/L	8260B/CA_LUFTMS
720-23728-3	**MW-6**				
Methyl tert-butyl ether		120	0.50	ug/L	8260B/CA_LUFTMS
TBA		6.5	4.0	ug/L	8260B/CA_LUFTMS
Gasoline Range Organics (GRO)-C6-C12		81	50	ug/L	8260B/CA_LUFTMS

METHOD SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
8260B / CA LUFT MS	TAL SF	SW846 8260B/CA_LUFTMS	
Purge and Trap	TAL SF		SW846 5030B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

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

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-23728-1	MW-1	Water	10/28/2009 1440	10/29/2009 1400
720-23728-2	MW-5	Water	10/28/2009 1420	10/29/2009 1400
720-23728-3	MW-6	Water	10/28/2009 1400	10/29/2009 1400

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Client Sample ID: **MW-1**

Lab Sample ID: 720-23728-1 Date Sampled: 10/28/2009 1440
Client Matrix: Water Date Received: 10/29/2009 1400

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60617	Instrument ID:	HP4
Preparation:	5030B		Lab File ID:	103109009.D
Dilution:	1.0		Initial Weight/Volume:	10 mL
Date Analyzed:	10/31/2009 1521		Final Weight/Volume:	10 mL
Date Prepared:	10/31/2009 1521			

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		67 - 130
Toluene-d8 (Surr)	98		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Client Sample ID: **MW-5**

Lab Sample ID: 720-23728-2 Date Sampled: 10/28/2009 1420
Client Matrix: Water Date Received: 10/29/2009 1400

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60617		Instrument ID:	HP4
Preparation:	5030B			Lab File ID:	103109012.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	10/31/2009 1701			Final Weight/Volume:	10 mL
Date Prepared:	10/31/2009 1701				

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	37		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	3.1		0.50
Ethyl t-butyl ether	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	370		50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	97		67 - 130
1,2-Dichloroethane-d4 (Surr)	103		67 - 130
Toluene-d8 (Surr)	97		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Client Sample ID: **MW-5**

Lab Sample ID: 720-23728-2 Date Sampled: 10/28/2009 1420
Client Matrix: Water Date Received: 10/29/2009 1400

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60704	Instrument ID:	HP4
Preparation:	5030B		Lab File ID:	11020930.D
Dilution:	20		Initial Weight/Volume:	10 mL
Date Analyzed:	11/03/2009 0115		Final Weight/Volume:	10 mL
Date Prepared:	11/03/2009 0115			

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	830		10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	97		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Client Sample ID: **MW-6**

Lab Sample ID: 720-23728-3 Date Sampled: 10/28/2009 1400
Client Matrix: Water Date Received: 10/29/2009 1400

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60704		Instrument ID:	HP4
Preparation:	5030B			Lab File ID:	11020927.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	11/02/2009 2335			Final Weight/Volume:	10 mL
Date Prepared:	11/02/2009 2335				

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	120		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	6.5		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	81		50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	103		67 - 130
Toluene-d8 (Surr)	99		70 - 130

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Lab Section	Qualifier	Description
GC/MS VOA		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-60617					
LCS 720-60617/4	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCS 720-60617/6	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-60617/5	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
LCSD 720-60617/7	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
MB 720-60617/8	Method Blank	T	Water	8260B/CA_LUFT	
720-23728-1	MW-1	T	Water	8260B/CA_LUFT	
720-23728-1MS	Matrix Spike	T	Water	8260B/CA_LUFT	
720-23728-1MSD	Matrix Spike Duplicate	T	Water	8260B/CA_LUFT	
720-23728-2	MW-5	T	Water	8260B/CA_LUFT	
Analysis Batch:720-60704					
LCS 720-60704/4	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCS 720-60704/6	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-60704/5	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
LCSD 720-60704/7	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
MB 720-60704/8	Method Blank	T	Water	8260B/CA_LUFT	
720-23728-2	MW-5	T	Water	8260B/CA_LUFT	
720-23728-3	MW-6	T	Water	8260B/CA_LUFT	
720-23728-3MS	Matrix Spike	T	Water	8260B/CA_LUFT	
720-23728-3MSD	Matrix Spike Duplicate	T	Water	8260B/CA_LUFT	

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Method Blank - Batch: 720-60617

Method: 8260B/CA_LUFTMS
Preparation: 5030B

Lab Sample ID: MB 720-60617/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/31/2009 1432
Date Prepared: 10/31/2009 1432

Analysis Batch: 720-60617
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 75MSD
Lab File ID: 103109008.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	93	67 - 130
1,2-Dichloroethane-d4 (Surr)	101	67 - 130
Toluene-d8 (Surr)	98	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-60617

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-60617/4	Analysis Batch:	720-60617	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	103109004.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/31/2009 1219			Final Weight/Volume:	10 mL
Date Prepared:	10/31/2009 1219				

LCSD Lab Sample ID:	LCSD 720-60617/5	Analysis Batch:	720-60617	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	103109005.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/31/2009 1252			Final Weight/Volume:	10 mL
Date Prepared:	10/31/2009 1252				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Methyl tert-butyl ether	105	102	66 - 138	2	20		
Benzene	101	110	80 - 130	8	20		
EDB	110	110	70 - 143	0	20		
1,2-DCA	105	108	70 - 133	3	20		
Ethylbenzene	107	117	80 - 139	9	20		
Toluene	103	112	80 - 126	8	20		
TBA	98	117	70 - 130	18	20		
Ethanol	103	125	66 - 160	20	20		
DIPE	104	109	80 - 139	5	20		
TAME	101	102	80 - 131	1	20		
Ethyl t-butyl ether	99	103	70 - 141	4	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	103	101	67 - 130
1,2-Dichloroethane-d4 (Surr)	99	97	67 - 130
Toluene-d8 (Surr)	100	101	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-60617

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-60617/6	Analysis Batch:	720-60617	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	103109006.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/31/2009 1326			Final Weight/Volume:	10 mL
Date Prepared:	10/31/2009 1326				

LCSD Lab Sample ID:	LCSD 720-60617/7	Analysis Batch:	720-60617	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	103109007.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/31/2009 1359			Final Weight/Volume:	10 mL
Date Prepared:	10/31/2009 1359				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Gasoline Range Organics (GRO)-C6-C12	88	89	30 - 130	1			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	101	101	67 - 130
1,2-Dichloroethane-d4 (Surr)	101	100	67 - 130
Toluene-d8 (Surr)	100	100	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-60617

Method: 8260B/CA_LUFTMS
Preparation: 5030B

MS Lab Sample ID:	720-23728-1	Analysis Batch:	720-60617	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	103109010.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	10/31/2009 1554			Final Weight/Volume:	10 mL
Date Prepared:	10/31/2009 1554				

MSD Lab Sample ID:	720-23728-1	Analysis Batch:	720-60617	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	103109011.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	10/31/2009 1628			Final Weight/Volume:	10 mL
Date Prepared:	10/31/2009 1628				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Methyl tert-butyl ether	104	104	60 - 138	0	20		
Benzene	106	108	60 - 140	2	20		
EDB	112	110	60 - 140	2	20		
1,2-DCA	110	112	60 - 140	1	20		
Ethylbenzene	110	113	60 - 140	2	20		
Toluene	105	109	60 - 140	3	20		
TBA	103	107	60 - 140	3	20		
Ethanol	116	135	60 - 140	15	20		
DIPE	112	113	60 - 140	1	20		
TAME	103	103	60 - 140	0	20		
Ethyl t-butyl ether	105	106	60 - 140	1	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	104	103	67 - 130
1,2-Dichloroethane-d4 (Surr)	100	99	67 - 130
Toluene-d8 (Surr)	101	100	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Method Blank - Batch: 720-60704

Method: 8260B/CA_LUFTMS
Preparation: 5030B

Lab Sample ID: MB 720-60704/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/02/2009 2303
Date Prepared: 11/02/2009 2303

Analysis Batch: 720-60704
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 75MSD
Lab File ID: 11020926.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	96	67 - 130
1,2-Dichloroethane-d4 (Surr)	97	67 - 130
Toluene-d8 (Surr)	99	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-60704

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-60704/4	Analysis Batch:	720-60704	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	11020922.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	11/02/2009 2051			Final Weight/Volume:	10 mL
Date Prepared:	11/02/2009 2051				

LCSD Lab Sample ID:	LCSD 720-60704/5	Analysis Batch:	720-60704	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	11020923.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	11/02/2009 2126			Final Weight/Volume:	10 mL
Date Prepared:	11/02/2009 2126				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Methyl tert-butyl ether	95	92	66 - 138	3	20		
Benzene	104	105	80 - 130	1	20		
EDB	105	103	70 - 143	2	20		
1,2-DCA	102	101	70 - 133	2	20		
Ethylbenzene	112	114	80 - 139	2	20		
Toluene	106	107	80 - 126	1	20		
TBA	102	104	70 - 130	2	20		
Ethanol	111	116	66 - 160	5	20		
DIPE	102	104	80 - 139	2	20		
TAME	93	91	80 - 131	2	20		
Ethyl t-butyl ether	96	96	70 - 141	0	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	103	102	67 - 130
1,2-Dichloroethane-d4 (Surr)	98	97	67 - 130
Toluene-d8 (Surr)	102	102	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-60704

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-60704/6	Analysis Batch:	720-60704	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	11020924.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	11/02/2009 2158			Final Weight/Volume:	10 mL
Date Prepared:	11/02/2009 2158				

LCSD Lab Sample ID:	LCSD 720-60704/7	Analysis Batch:	720-60704	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	11020925.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	11/02/2009 2230			Final Weight/Volume:	10 mL
Date Prepared:	11/02/2009 2230				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Gasoline Range Organics (GRO)-C6-C12	91	90	30 - 130	0			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	103	102	67 - 130
1,2-Dichloroethane-d4 (Surr)	100	100	67 - 130
Toluene-d8 (Surr)	102	102	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23728-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-60704

Method: 8260B/CA_LUFTMS
Preparation: 5030B

MS Lab Sample ID:	720-23728-3	Analysis Batch:	720-60704	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	11020928.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	11/03/2009 0009			Final Weight/Volume:	10 mL
Date Prepared:	11/03/2009 0009				

MSD Lab Sample ID:	720-23728-3	Analysis Batch:	720-60704	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	11020929.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	11/03/2009 0042			Final Weight/Volume:	10 mL
Date Prepared:	11/03/2009 0042				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Methyl tert-butyl ether	94	23	60 - 138	6	20	4	4
Benzene	104	104	60 - 140	0	20		
EDB	108	103	60 - 140	5	20		
1,2-DCA	107	105	60 - 140	1	20		
Ethylbenzene	108	109	60 - 140	1	20		
Toluene	103	105	60 - 140	2	20		
TBA	102	102	60 - 140	0	20		
Ethanol	130	123	60 - 140	6	20		
DIPE	109	109	60 - 140	0	20		
TAME	111	106	60 - 140	5	20		
Ethyl t-butyl ether	102	99	60 - 140	3	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	104	104	67 - 130
1,2-Dichloroethane-d4 (Surr)	102	100	67 - 130
Toluene-d8 (Surr)	101	101	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

720-23728

Chain of Custody Record

120174

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jason Duda	Site Contact: Troy Geddes	Date: 10/24/09	COC No:
Broadbent and Associates, Inc.	Tel/Fax: 530-566-1400/530-566-1401	Lab Contact: Dimple Sharma	Carrier: T. Geddes	____ of ____ COCs
Address: 1324 Mangrove Ave. Suite 212	Analysis Turnaround Time			Job No.
City/State/Zip: Chico, CA 95926	Calendar (C) or Work Days (W) ____			
(530) 566-1400 Phone	TAT if different from Below standard			SDG No.
(530) 566-1401 FAX	☐ 2 weeks			
Project Name: BP 11124	☐ 1 week			
Site: 3315 High Street, Oakland, CA	☐ 2 days			
P O # GP09BPNA.C113	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	GRO (8015)	BTEX	5 Oxygenates	EDB and 1,2-DCA	Ethanol	Sample Specific Notes:
MW-1	10/28/09	1440		AQ	6V		X	X	X	X	X	
MW-5	↓	1420		↓	↓		X	X	X	X	X	
MW-6	↓	1400		↓	↓		X	X	X	X	X	
Trip Blank												Hold Trip Blank

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

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

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

Special Instructions/QC Requirements & Comments:

5.2°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
T. Geddes	Broadbent & Assoc.	10/24/09 1400	Julie H.	TASF	10/29/09 - 1400
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 720-23728-1

Login Number: 23728

List Source: TestAmerica San Francisco

Creator: Hoang, Julie

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is 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	
There are no discrepancies between the sample IDs on the containers 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	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

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:	**4Q09 GEO_WELL 11124**
Facility Global ID:	**T0600100919**
Facility Name:	**BP #11124**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**1/5/2010 2:58:21 PM**
Confirmation Number:	**4408166050**

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 - Other**
Submittal Title:	**4Q09 GW Monitoring**
Facility Global ID:	**T0600100919**
Facility Name:	**BP #11124**
File Name:	**11124-720-23728-1.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**1/5/2010 3:01:18 PM**
Confirmation Number:	**6243348479**

VIEW QC REPORT

VIEW DETECTIONS REPORT