



Atlantic Richfield Company  
(a BP affiliated company)

P.O. Box 1257  
San Ramon, CA 94583  
Phone: (925) 275-3801  
Fax: (925) 275-3815

RECEIVED

2:29 pm, Jan 29, 2008

Alameda County  
Environmental Health



25 January 2008

Re: Fourth Quarter 2007 Ground-Water Monitoring Report  
Atlantic Richfield Company Station #374  
6407 Telegraph Avenue  
Oakland, California  
ACEH Case # RO0000078

"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:

Paul Supple  
Environmental Business Manager

Prepared for

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

Prepared by



1324 Mangrove Avenue, Suite 212  
Chico, California 95926  
(530) 566-1400  
[www.broadbentinc.com](http://www.broadbentinc.com)

25 January 2008

Project No. 06-08-602

**Fourth Quarter 2007 Ground-Water Monitoring Report**  
Atlantic Richfield Company Station #374  
6407 Telegraph Avenue  
Oakland, California

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



25 January 2008

Project No. 06-08-602

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

Attn.: Mr. Paul Supple

Re: Fourth Quarter 2007 Ground-Water Monitoring Report, Atlantic Richfield Company (a BP affiliated company) Station #374, 6407 Telegraph Avenue, Oakland, Alameda County, California. ACEH Case #RO0000078

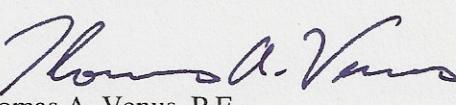
Dear Mr. Supple:

Attached is the *Fourth Quarter 2007 Ground-Water Monitoring Report* for Atlantic Richfield Company Station #374 (herein referred to as Station #374) located at 6407 Telegraph Avenue, Oakland, California (Property). This report presents results of ground-water monitoring conducted during the Fourth Quarter of 2007.

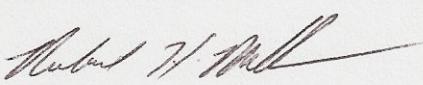
Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

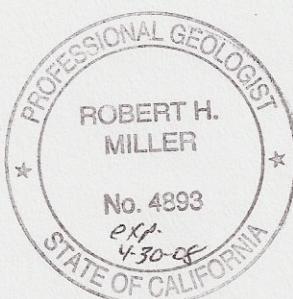
BROADBENT & ASSOCIATES, INC.



Thomas A. Venus, P.E.  
Senior Engineer



Robert H. Miller, P.G., C.HG.  
Principal Hydrogeologist



Enclosures

cc: Mr. Steven Plunkett, Alameda County Environmental Health (Submitted via ACEH ftp site)  
Electronic copy uploaded to GeoTracker

## STATION #374 QUARTERLY GROUND-WATER MONITORING REPORT

Facility: #374	Address: 6407 Telegraph Avenue, Oakland, California
Environmental Business Manager:	Mr. Paul Supple
Consulting Co./Contact Persons:	Broadbent & Associates, Inc.(BAI)/Rob Miller & Tom Venus (530) 566-1400
Consultant Project No.:	06-08-602
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case #RO0000078
Facility Permits/Permitting Agency:	NA

### WORK PERFORMED THIS QUARTER (Fourth Quarter 2007):

1. Prepared and submitted Third Quarter 2007 Ground-Water Monitoring Report.
2. Conducted ground-water monitoring/sampling for Fourth Quarter 2007. Work performed on 14 November 2007 by Stratus Environmental, Inc (Stratus).

### WORK PROPOSED FOR NEXT QUARTER (First Quarter 2008):

1. Prepared and submitted this Fourth Quarter 2007 Ground-Water Monitoring Report (contained herein).
2. Conduct quarterly ground-water monitoring/sampling for First Quarter 2008.

### QUARTERLY RESULTS SUMMARY:

Current phase of project:	<u>Ground-water monitoring/sampling</u>
Frequency of ground-water monitoring:	<u>Quarterly: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6</u>
Frequency of ground-water sampling:	<u>Quarterly: MW-1</u> <u>Semi-Annually (1Q and 3Q): MW-2 and MW-4</u> <u>Annually (3Q): MW-3, MW-5, and MW-6</u>
Is free product (FP) present on-site:	<u>No</u>
Current remediation techniques:	<u>NA</u>
Depth to ground water (below TOC):	<u>5.38 ft (MW-6) to 9.10 ft (MW-5)</u>
General ground-water flow direction:	<u>Southwest</u>
Approximate hydraulic gradient:	<u>0.03 ft/ft</u>

### DISCUSSION:

Fourth quarter 2007 ground-water monitoring and sampling was conducted at Station #374 on 14 November 2007 by Stratus. Water levels were gauged in the six wells at the Site. No irregularities were noted in the field during this quarter's water level gauging. Depth to water measurements ranged from 5.38 ft at MW-6 to 9.10 ft at MW-5. Resulting ground-water surface elevations ranged from 156.56 ft above mean sea level in well MW-1 to 142.23 ft at well MW-5. Water level elevations were between historic minimum and maximum ranges for each well. Historic water level elevation data is summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the southwest at approximately 0.03 ft/ft, consistent with historical data reported in Table 3. 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. Potentiometric ground-water elevation contours are presented in Drawing 1.

Consistent with the current ground-water sampling schedule, water samples were collected from well MW-1 at the Site. No irregularities were reported during sampling. Samples were submitted under

chain-of-custody protocol to Test America Analytical Testing Corporation (Morgan Hill, California), for analysis of Gasoline Range Organics (GRO, C4-12) by the LUFT GCMS Method; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and tert-Amyl methyl ether (TAME), tert-Butyl alcohol (TBA), Di-isopropyl ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Ethanol, Ethyl tert-butyl ether (ETBE), and Methyl tert-butyl ether (MTBE) by EPA Method 8260B. No significant irregularities were noted 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.

Concentrations of GRO were detected above the laboratory reporting limits in MW-1 at a concentration of 170 micrograms per liter ( $\mu\text{g}/\text{L}$ ). MTBE was detected above the laboratory reporting limits in well MW-1 at a concentration of 210  $\mu\text{g}/\text{L}$ . The remaining fuel additives and oxygenates were not detected above their laboratory reporting limits in MW-1 this quarter.

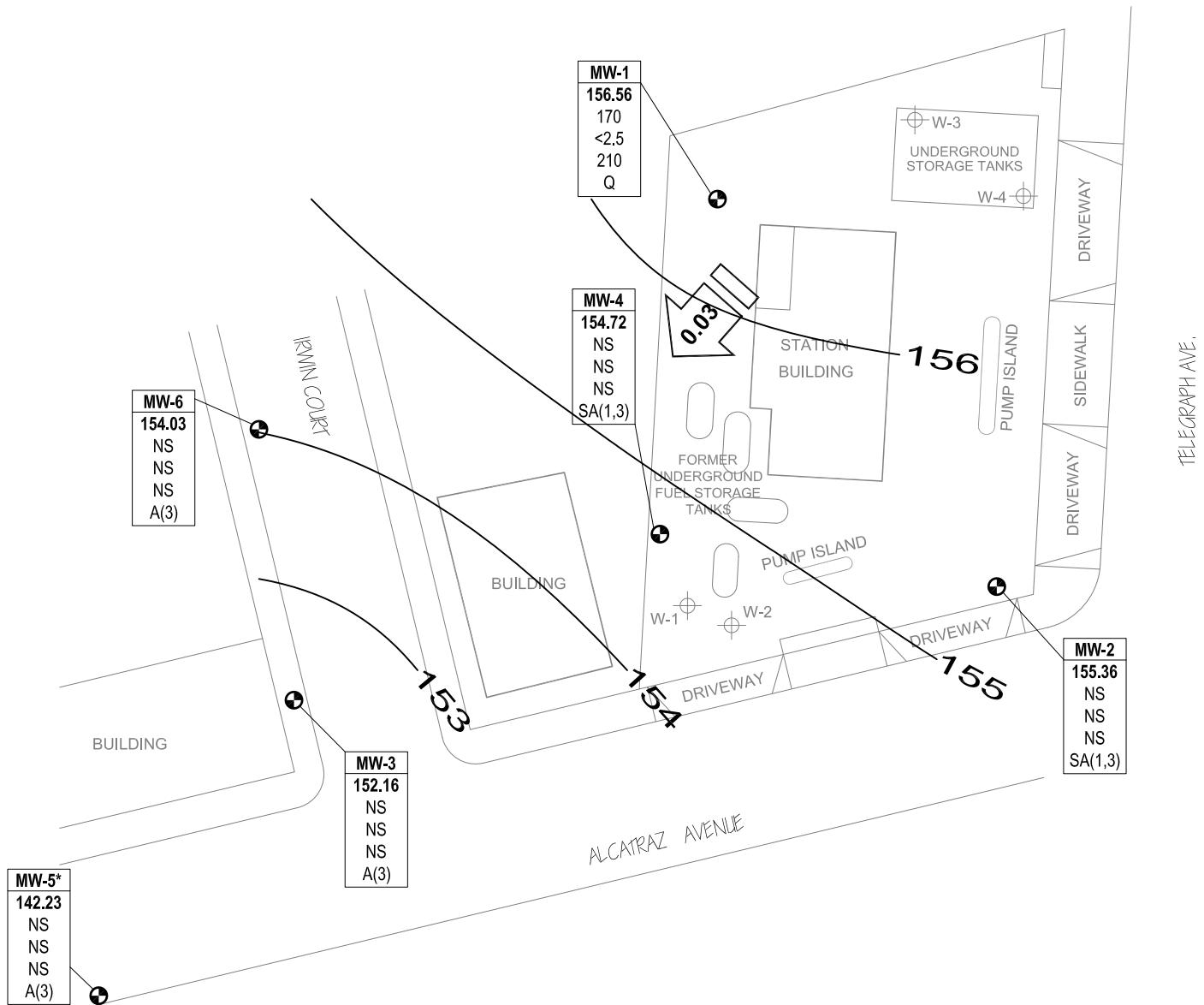
Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well. Historic laboratory analytical results are summarized in Table 1 and Table 2. The most recent GRO, Benzene, and MTBE concentrations are also presented in Drawing 1. A copy of the Laboratory Analytical Report, including chain-of-custody documentation is provided in Appendix A. 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.

## CLOSURE:

The findings presented in this report are based upon: observations of Stratus field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Test America (Morgan Hill, 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. 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. Ground-Water Elevation Contours and Analytical Summary Map, 14 November 2007, Station #374, 6407 Telegraph Avenue, Oakland, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #374, 6407 Telegraph Ave., Oakland, CA
- Table 2. Summary of Fuel Additives Analytical Data, Station #374, 6407 Telegraph Ave., Oakland, CA
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #374, 6407 Telegraph Ave., Oakland, CA
- Appendix A. Stratus Ground-Water Sampling Data Package (Includes Field Data Sheets and Laboratory Analytical Report with Chain-of-Custody Documentation)
- Appendix B. GeoTracker Upload Confirmation



#### LEGEND

- MONITORING WELL
- TANK PIT MONITORING WELL
- Well DESIGNATION
- ELEV GROUND-WATER ELEVATION (FT MSL)
- GRO Benzene & MTBE CONCENTRATIONS IN GROUND WATER ( $\mu\text{g/L}$ )
- MTBE SAMPLING FREQUENCY
- < NOT DETECTED AT OR ABOVE LABORATORY LIMITS
- Q SAMPLED QUARTERLY
- SA(1,3) SAMPLED SEMI-ANNUALLY, 1ST & 3RD QUARTERS
- A(3) SAMPLED ANNUALLY, 3RD QUARTER
- NS NOT SAMPLED
- 0.03 APPROXIMATE GROUND-WATER FLOW AND DIRECTION (FT/FT)
- 155 GROUND-WATER ELEVATION CONTOUR (FT MSL)
- \* Elevation not used for contours



0 40 80  
SCALE (ft)

NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES.  
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



**BROADBENT & ASSOCIATES, INC.**  
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
1324 Mangrove Ave. Suite 212, Chico, California  
Project No.: 06-08-602 Date: 1/3/08

Station #374  
6407 Telegraph Ave.  
Oakland, California

Ground-Water Elevation Contours  
and Analytical Summary Map  
14 November 2007

Drawing  
**1**

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

Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-1															
6/20/2000	--		158.91	7.00	27.0	6.86	152.05	--	--	--	--	--	--	--	--
9/28/2000	--		158.91	7.00	27.0	7.50	151.41	--	--	--	--	--	--	--	--
12/17/2000	--		158.91	7.00	27.0	7.49	151.42	--	--	--	--	--	--	--	--
3/23/2001	--		158.91	7.00	27.0	5.90	153.01	<50	<0.5	<0.5	<0.5	<0.5	2,710	--	--
6/21/2001	--		158.91	7.00	27.0	7.45	151.46	--	--	--	--	--	--	--	--
9/23/2001	--		158.91	7.00	27.0	8.46	150.45	--	--	--	--	--	--	--	--
12/31/2001	--		158.91	7.00	27.0	5.50	153.41	--	--	--	--	--	--	--	--
3/21/2002	--		158.91	7.00	27.0	4.71	154.20	<5,000	<50	<50	<50	<50	2,000	--	--
4/17/2002	--		158.91	7.00	27.0	5.54	153.37	--	--	--	--	--	--	--	--
8/12/2002	--		158.91	7.00	27.0	7.77	151.14	--	--	--	--	--	--	--	--
12/6/2002	--		158.91	7.00	27.0	7.65	151.26	--	--	--	--	--	--	--	--
1/29/2003	--	b	158.91	7.00	27.0	5.88	153.03	--	--	--	--	--	--	--	--
5/23/2003	--		158.91	7.00	27.0	5.62	153.29	<10,000	<100	<100	<100	<100	1,600	1.3	7.1
9/4/2003	--		158.91	7.00	27.0	7.85	151.06	--	--	--	--	--	--	--	--
11/20/2003	P		158.91	7.00	27.0	8.17	150.74	1,600	<10	<10	<10	<10	1,500	1.7	6.7
02/02/2004	P	f	164.57	7.00	27.0	6.71	157.86	--	--	--	--	--	--	1.0	--
05/14/2004	P		164.57	7.00	27.0	7.08	157.49	<2,500	<25	<25	<25	<25	1,200	1.4	6.6
09/02/2004	P		164.57	7.00	27.0	8.12	156.45	580	<5.0	<5.0	<5.0	<5.0	660	3.8	6.7
11/04/2004	P		164.57	7.00	27.0	7.38	157.19	1,700	<10	<10	<10	<10	580	6.0	6.5
02/08/2005	P		164.57	7.00	27.0	6.60	157.97	<1,000	<10	<10	<10	<10	610	0.71	6.5
05/09/2005	P	e	164.57	7.00	27.0	6.84	157.73	540	<5.0	<5.0	<5.0	<5.0	620	3.12	6.6
08/11/2005	P		164.57	7.00	27.0	7.36	157.21	540	<2.5	<2.5	<2.5	<2.5	4.0	390	0.8
11/18/2005	P	e	164.57	7.00	27.0	8.02	156.55	350	<2.5	<2.5	<2.5	<2.5	340	2.6	6.7
02/16/2006	P	e	164.57	7.00	27.0	6.44	158.13	350	<2.5	<2.5	<2.5	<2.5	340	1.6	6.7
5/30/2006	P		164.57	7.00	27.0	6.87	157.70	270	<2.5	<2.5	<2.5	<2.5	420	4.73	6.4
8/24/2006	P		164.57	7.00	27.0	7.75	156.82	95	<5.0	<5.0	<5.0	<5.0	180	0.65	6.9
11/1/2006	P		164.57	7.00	27.0	8.28	156.29	120	<5.0	<5.0	<5.0	<5.0	220	1.65	7.07
2/7/2007	NP	e	164.57	7.00	27.0	7.40	157.17	120	<5.0	<5.0	<5.0	<5.0	190	1.88	7.45
5/8/2007	P		164.57	7.00	27.0	6.50	158.07	<500	<5.0	<5.0	<5.0	<5.0	420	1.21	6.94
8/8/2007	NP	e	164.57	7.00	27.0	8.17	156.40	82	<0.50	<0.50	<0.50	<0.50	110	1.16	7.00
<b>11/14/2007</b>	<b>NP</b>		<b>164.57</b>	<b>7.00</b>	<b>27.0</b>	<b>8.01</b>	<b>156.56</b>	<b>170</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>210</b>	<b>1.92</b>	<b>6.49</b>

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

Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-1															
MW-2															
6/20/2000	--		157.92	7.00	27.0	7.67	150.25	--	--	--	--	--	--	--	--
9/28/2000	--		157.92	7.00	27.0	8.51	149.41	--	--	--	--	--	--	--	--
12/17/2000	--		157.92	7.00	27.0	8.14	149.78	--	--	--	--	--	--	--	--
3/23/2001	--		157.92	7.00	27.0	7.21	150.71	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
6/21/2001	--		157.92	7.00	27.0	7.99	149.93	--	--	--	--	--	--	--	--
9/23/2001	--		157.92	7.00	27.0	8.52	149.40	--	--	--	--	--	--	--	--
12/31/2001	--		157.92	7.00	27.0	6.01	151.91	--	--	--	--	--	--	--	--
3/21/2002	--		157.92	7.00	27.0	5.95	151.97	<50	<0.5	<0.5	<0.5	<0.5	45	--	--
4/17/2002	--		157.92	7.00	27.0	6.45	151.47	--	--	--	--	--	--	--	--
8/12/2002	--		157.92	7.00	27.0	8.08	149.84	--	--	--	--	--	--	--	--
12/6/2002	--		157.92	7.00	27.0	8.29	149.63	--	--	--	--	--	--	--	--
1/29/2003	--	b	157.92	7.00	27.0	7.22	150.70	--	--	--	--	--	--	--	--
5/23/2003	--		157.92	7.00	27.0	6.85	151.07	<50	<0.50	<0.50	<0.50	<0.50	55	1.4	7.2
9/4/2003	--		157.92	7.00	27.0	7.94	149.98	--	--	--	--	--	--	--	--
11/20/2003	--		157.92	7.00	27.0	8.05	149.87	--	--	--	--	--	--	--	--
02/02/2004	P	f	163.46	7.00	27.0	7.00	156.46	74	<0.50	<0.50	<0.50	<0.50	37	1.1	8.9
05/14/2004	--		163.46	7.00	27.0	7.97	155.49	--	--	--	--	--	--	--	--
09/02/2004	P		163.46	7.00	27.0	8.19	155.27	<250	<2.5	<2.5	<2.5	<2.5	67	2.7	6.9
11/04/2004	--		163.46	7.00	27.0	7.54	155.92	--	--	--	--	--	--	--	--
02/08/2005	P		163.46	7.00	27.0	6.72	156.74	<50	<0.50	<0.50	<0.50	<0.50	30	0.86	6.7
05/09/2005	--		163.46	7.00	27.0	7.16	156.30	--	--	--	--	--	--	--	--
08/11/2005	P		163.46	7.00	27.0	7.85	155.61	<50	<0.50	<0.50	<0.50	<0.50	35	1.0	6.6
11/18/2005	--		163.46	7.00	27.0	8.23	155.23	--	--	--	--	--	--	--	--
02/16/2006	P		163.46	7.00	27.0	6.82	156.64	<50	<0.50	<0.50	<0.50	<0.50	39	1.3	7.0
5/30/2006	--		163.46	7.00	27.0	7.23	156.23	--	--	--	--	--	--	--	--
8/24/2006	P		163.46	7.00	27.0	8.00	155.46	60	<0.50	<0.50	<0.50	<0.50	25	0.90	6.8
11/1/2006	--		163.46	7.00	27.0	8.38	155.08	--	--	--	--	--	--	--	--
2/7/2007	NP		163.46	7.00	27.0	7.88	155.58	<50	0.50	<0.50	<0.50	<0.50	7.2	0.94	7.39
5/8/2007	--		163.46	7.00	27.0	7.28	156.18	--	--	--	--	--	--	--	--

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

Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-2 Cont.</b>															
8/8/2007	NP		163.46	7.00	27.0	8.38	155.08	88	3.2	<0.50	<0.50	<0.50	7.2	0.94	7.75
11/14/2007	--		163.46	7.00	27.0	8.10	155.36	--	--	--	--	--	--	--	--
<b>MW-3</b>															
6/20/2000	--		153.64	7.00	27.0	6.42	147.22	<50	<0.5	<0.5	<0.5	<1.0	<10	--	--
9/28/2000	--		153.64	7.00	27.0	7.31	146.33	--	--	--	--	--	--	--	--
12/17/2000	--		153.64	7.00	27.0	6.45	147.19	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/23/2001	--		153.64	7.00	27.0	6.01	147.63	--	--	--	--	--	--	--	--
6/21/2001	--		153.64	7.00	27.0	6.80	146.84	110	5.5	<0.5	5.4	4.1	2.5	--	--
9/23/2001	--		153.64	7.00	27.0	7.32	146.32	--	--	--	--	--	--	--	--
12/31/2001	--		153.64	7.00	27.0	4.48	149.16	<50	<0.5	<0.5	<0.5	<0.5	4.9	--	--
3/21/2002	--		153.64	7.00	27.0	4.36	149.28	--	--	--	--	--	--	--	--
4/17/2002	--		153.64	7.00	27.0	5.31	148.33	<50	<0.5	<0.5	<0.5	<0.5	8.7	--	--
8/12/2002	--		153.64	7.00	27.0	7.00	146.64	--	--	--	--	--	--	--	--
12/6/2002	--		153.64	7.00	27.0	7.32	146.32	<50	<0.5	<0.5	<0.5	<0.5	6.2	1.4	6.7
1/29/2003	--	b	153.64	7.00	27.0	6.07	147.57	--	--	--	--	--	--	--	--
5/23/2003	--		153.64	7.00	27.0	6.45	147.19	<50	<0.50	<0.50	<0.50	<0.50	1.6	0.9	7.7
9/4/2003	--	c	153.64	7.00	27.0	6.93	146.71	--	--	--	--	--	--	--	--
11/20/2003	--	c	153.64	7.00	27.0	7.04	146.60	--	--	--	--	--	--	--	--
02/02/2004	--	f	159.21	7.00	27.0	5.92	153.29	--	--	--	--	--	--	--	--
05/14/2004	--		159.21	7.00	27.0	7.52	151.69	--	--	--	--	--	--	--	--
09/02/2004	P		159.21	7.00	27.0	7.19	152.02	<50	<0.50	<0.50	<0.50	<0.50	6.5	9.3	8.9
11/04/2004	--		159.21	7.00	27.0	6.40	152.81	--	--	--	--	--	--	--	--
02/08/2005	--		159.21	7.00	27.0	6.01	153.20	--	--	--	--	--	--	--	--
05/09/2005	--		159.21	7.00	27.0	6.74	152.47	--	--	--	--	--	--	--	--
08/11/2005	P		159.21	7.00	27.0	6.77	152.44	<50	<0.50	<0.50	<0.50	<0.50	11	1.9	6.5
11/18/2005	--		159.21	7.00	27.0	7.83	151.38	--	--	--	--	--	--	--	--
02/16/2006	--		159.21	7.00	27.0	7.26	151.95	--	--	--	--	--	--	--	--
5/30/2006	--		159.21	7.00	27.0	5.82	153.39	--	--	--	--	--	--	--	--
8/24/2006	P		159.21	7.00	27.0	7.00	152.21	<50	<0.50	<0.50	<0.50	<0.50	7.6	1.15	6.4
11/1/2006	--		159.21	7.00	27.0	7.50	151.71	--	--	--	--	--	--	--	--

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

Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-3 Cont.</b>															
2/7/2007	--		159.21	7.00	27.0	6.90	152.31	--	--	--	--	--	--	--	--
5/8/2007	--		159.21	7.00	27.0	5.95	153.26	--	--	--	--	--	--	--	--
8/8/2007	NP		159.21	7.00	27.0	7.47	151.74	<50	<0.50	<0.50	<0.50	<0.50	1.2	1.21	6.93
11/14/2007	--		159.21	7.00	27.0	7.05	152.16	--	--	--	--	--	--	--	--
<b>MW-4</b>															
6/20/2000	--	c	156.53	7.00	27.0	7.50	149.03	20,000	5,100	440	1,000	1,700	<250	--	--
9/28/2000	--		156.53	7.00	27.0	8.20	148.33	--	--	--	--	--	--	--	--
12/17/2000	--		156.53	7.00	27.0	8.11	148.42	4,320	1,240	<20	27.2	249	<100	--	--
3/23/2001	--		156.53	7.00	27.0	6.69	149.84	--	--	--	--	--	--	--	--
6/21/2001	--		156.53	7.00	27.0	8.01	148.52	2,800	470	16	19	160	130	--	--
9/23/2001	--		156.53	7.00	27.0	8.91	147.62	--	--	--	--	--	--	--	--
12/31/2001	--		156.53	7.00	27.0	4.42	152.11	4,600	1,500	100	160	210	160	--	--
3/21/2002	--		156.53	7.00	27.0	4.98	151.55	--	--	--	--	--	--	--	--
4/17/2002	--		156.53	7.00	27.0	6.23	150.30	7,100	2,200	110	290	450	<250	--	--
8/12/2002	--		156.53	7.00	27.0	8.24	148.29	--	--	--	--	--	--	--	--
12/6/2002	--	a	156.53	7.00	27.0	8.42	148.11	1,500	410	6.8	20	29	43	1.1	6.7
1/29/2003	--	b	156.53	7.00	27.0	7.20	149.33	--	--	--	--	--	--	--	--
5/23/2003	--		156.53	7.00	27.0	7.18	149.35	<5,000	1,300	89	210	260	<50	1.4	6.9
9/4/2003	--	c	156.53	7.00	27.0	8.15	148.38	--	--	--	--	--	--	--	--
11/20/2003	--	c	156.53	7.00	27.0	8.73	147.80	--	--	--	--	--	--	--	--
02/02/2004	P	c, f, g	163.25	7.00	27.0	6.25	157.00	980	280	21	29	38	29	1.4	10.6
05/14/2004	--	g	163.25	7.00	27.0	8.38	154.87	--	--	--	--	--	--	--	--
09/02/2004	P	g	163.25	7.00	27.0	8.36	154.89	260	11	<1.0	5.5	14	28	2.4	7.4
11/04/2004	--	c, g	163.25	7.00	27.0	7.71	155.54	--	--	--	--	--	--	--	--
02/08/2005	P	g	163.25	7.00	27.0	6.27	156.98	7,500	1,700	320	480	920	45	0.65	6.5
05/09/2005	--	g	163.25	7.00	27.0	5.90	157.35	--	--	--	--	--	--	--	--
08/11/2005	P	g	163.25	7.00	27.0	7.96	155.29	3,100	1,100	41	160	110	32	0.6	6.5
11/18/2005	--	g	163.25	7.00	27.0	8.57	154.68	--	--	--	--	--	--	--	--
02/16/2006	P	g	163.25	7.00	27.0	6.28	156.97	9,400	1,800	130	600	420	35	0.5	6.8
5/30/2006	--	g	163.25	7.00	27.0	7.02	156.23	--	--	--	--	--	--	--	--

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

Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-4 Cont.</b>															
8/24/2006	P	g	162.47	7.00	27.0	8.26	154.21	3,600	1,400	21	110	70	39	1.00	6.8
11/1/2006	--		163.25	7.00	27.0	8.67	154.58	--	--	--	--	--	--	--	--
2/7/2007	NP		163.25	7.00	27.0	8.02	155.23	3,100	570	17	170	110	67	0.95	7.07
5/8/2007	--		163.25	7.00	27.0	7.03	156.22	--	--	--	--	--	--	--	--
8/8/2007	NP		163.25	7.00	27.0	8.60	154.65	2,900	630	22	67	57	72	0.93	6.79
<b>11/14/2007</b>	--		<b>163.25</b>	<b>7.00</b>	<b>27.0</b>	<b>8.53</b>	<b>154.72</b>	--	--	--	--	--	--	--	--
<b>MW-5</b>															
6/20/2000	--		151.33	10.00	23.0	7.84	143.49	<50	<0.5	<0.5	<0.5	<1.0	<10	--	--
9/28/2000	--		151.33	10.00	23.0	8.37	142.96	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/17/2000	--		151.33	10.00	23.0	8.36	142.97	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/23/2001	--		151.33	10.00	23.0	7.55	143.78	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
6/21/2001	--		151.33	10.00	23.0	8.20	143.13	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
9/23/2001	--		151.33	10.00	23.0	8.68	142.65	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/31/2001	--		151.33	10.00	23.0	7.57	143.76	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/21/2002	--		151.33	10.00	23.0	6.12	145.21	<50	<0.5	<0.5	<0.5	<0.5	3.2	--	--
4/17/2002	--		151.33	10.00	23.0	6.61	144.72	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
8/12/2002	--		151.33	10.00	23.0	8.14	143.19	<50	<0.5	<0.5	<0.5	<0.5	<2.5	4.1	7.6
12/6/2002	--		151.33	10.00	23.0	8.65	142.68	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1.1	6.8
1/29/2003	--	b	151.33	10.00	23.0	7.22	144.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1	6.6
5/23/2003	--		151.33	10.00	23.0	7.31	144.02	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	6.6
9/4/2003	--		151.33	10.00	23.0	9.50	141.83	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.2	6.7
11/20/2003	--		151.33	10.00	23.0	8.31	143.02	--	--	--	--	--	--	--	--
02/02/2004	--	c, f, h	151.33	10.00	23.0	6.92	144.41	--	--	--	--	--	--	--	--
05/14/2004	--	h	151.33	10.00	23.0	8.56	142.77	--	--	--	--	--	--	--	--
09/02/2004	P	h	151.33	10.00	23.0	8.79	142.54	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.5	6.8
11/04/2004	--	c, h	151.33	10.00	23.0	8.33	143.00	--	--	--	--	--	--	--	--
02/08/2005	--	h	151.33	10.00	23.0	7.28	144.05	--	--	--	--	--	--	--	--
05/09/2005	--	h	151.33	10.00	23.0	8.19	143.14	--	--	--	--	--	--	--	--
08/11/2005	P	h	151.33	10.00	23.0	8.39	142.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	6.6
11/18/2005	--	h	151.33	10.00	23.0	11.25	140.08	--	--	--	--	--	--	--	--

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

Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-5 Cont.</b>															
02/16/2006	--	h	151.33	10.00	23.0	9.22	142.11	--	--	--	--	--	--	--	--
5/30/2006	--	h	151.33	10.00	23.0	7.52	143.81	--	--	--	--	--	--	--	--
8/24/2006	P	h	--	10.00	23.0	7.95	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.60	6.6
11/1/2006	--		151.33	10.00	23.0	8.32	143.01	--	--	--	--	--	--	--	--
2/7/2007	--		151.33	10.00	23.0	8.25	143.08	--	--	--	--	--	--	--	--
5/8/2007	--		151.33	10.00	23.0	7.60	143.73	--	--	--	--	--	--	--	--
8/8/2007	P		151.33	10.00	23.0	8.12	143.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.26	7.31
11/14/2007	--		151.33	10.00	23.0	9.10	142.23	--	--	--	--	--	--	--	--
<b>MW-6</b>															
6/20/2000	--		153.84	5.00	15.0	4.79	149.05	--	--	--	--	--	--	--	--
9/28/2000	--		153.84	5.00	15.0	5.39	148.45	--	--	--	--	--	--	--	--
12/17/2000	--		153.84	5.00	15.0	4.71	149.13	--	--	--	--	--	--	--	--
3/23/2001	--		153.84	5.00	15.0	4.69	149.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	--
6/21/2001	--		153.84	5.00	15.0	5.22	148.62	--	--	--	--	--	--	--	--
9/23/2001	--		153.84	5.00	15.0	5.40	148.44	--	--	--	--	--	--	--	--
12/31/2001	--		153.84	5.00	15.0	3.95	149.89	--	--	--	--	--	--	--	--
3/21/2002	--		153.84	5.00	15.0	2.94	150.90	<50	<0.5	<0.5	<0.5	<0.5	<0.5	5.2	--
4/17/2002	--		153.84	5.00	15.0	5.11	148.73	--	--	--	--	--	--	--	--
8/12/2002	--		153.84	5.00	15.0	5.23	148.61	--	--	--	--	--	--	--	--
12/6/2002	--		153.84	5.00	15.0	5.29	148.55	--	--	--	--	--	--	--	--
1/29/2003	--	b	153.84	5.00	15.0	4.79	149.05	--	--	--	--	--	--	--	--
5/23/2003	--		153.84	5.00	15.0	4.31	149.53	<50	<0.50	<0.50	<0.50	<0.50	<0.50	9.4	1 6.7
09/04/03	--	d	153.84	5.00	15.0	--	--	--	--	--	--	--	--	--	--
11/20/2003	--		153.84	5.00	15.0	6.31	147.53	--	--	--	--	--	--	--	--
02/02/2004	--		159.41	5.00	15.0	4.78	154.63	--	--	--	--	--	--	--	--
05/14/2004	--		159.41	5.00	15.0	6.29	153.12	--	--	--	--	--	--	--	--
09/02/2004	--	d	159.41	5.00	15.0	5.79	153.62	--	--	--	--	--	--	--	--
11/04/2004	--	d	159.41	5.00	15.0	--	--	--	--	--	--	--	--	--	--
02/08/2005	--		159.41	5.00	15.0	5.13	154.28	--	--	--	--	--	--	--	--
05/09/2005	--		159.41	5.00	15.0	4.52	154.89	--	--	--	--	--	--	--	--

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

Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-6 Cont.</b>															
08/11/2005	P		159.41	5.00	15.0	5.02	154.39	<50	<0.50	<0.50	<0.50	<0.50	7.9	2.1	6.6
11/18/2005	--		159.41	5.00	15.0	6.31	153.10	--	--	--	--	--	--	--	--
02/16/2006	--		159.41	5.00	15.0	4.24	155.17	--	--	--	--	--	--	--	--
5/30/2006	--		159.41	5.00	15.0	4.45	154.96	--	--	--	--	--	--	--	--
8/24/2006	P		159.41	5.00	15.0	5.18	154.23	<50	<0.50	<0.50	<0.50	<0.50	12	3.4	6.8
11/1/2006	--		159.41	5.00	15.0	6.05	153.36	--	--	--	--	--	--	--	--
2/7/2007	--		159.41	5.00	15.0	5.00	154.41	--	--	--	--	--	--	--	--
5/8/2007	--		159.41	5.00	15.0	4.30	155.11	--	--	--	--	--	--	--	--
8/8/2007	NP		159.41	5.00	15.0	5.51	153.90	<50	<0.50	<0.50	<0.50	<0.50	0.57	2.94	6.87
11/14/2007	--		<b>159.41</b>	<b>5.00</b>	<b>15.0</b>	<b>5.38</b>	<b>154.03</b>	--	--	--	--	--	--	--	--

**SYMBOLS AND ABBREVIATIONS:**

-- = Not analyzed/applicable/measured/available  
< = Not detected at or above laboratory reporting limit  
DO = Dissolved oxygen  
DTW = Depth to water in ft bgs  
ft bgs = Feet below ground surface  
ft MSL = Feet above mean sea level  
GRO = Gasoline range organics  
GWE = Groundwater elevation measured in ft MSL  
mg/L = Milligrams per liter  
MTBE = Methyl tert-butyl ether  
NP = Well was not purged prior to sampling  
P = Well was purged prior to sampling  
TOC = Top of casing measured in ft MSL  
TPH-g = Total petroleum hydrocarbons as gasoline  
µg/L = Micrograms per liter  
BTEX = Benzene, toluene, ethylbenzene and xylenes

**FOOTNOTES:**

a = Chromatogram pattern: Gasoline C6-C10 for GRO/TPH-g.  
b = Beginning this quarter, groundwater samples were analyzed by EPA method 8260B for TPH-g, BTEX, and fuel oxygenates.  
c = Wells gauged with ORC sock in well.  
d = Well inaccessible  
e = The hydrocarbon result for GRO was partly due to individual peaks in the quantitative range.  
f = Well resurveyed on 1/27/2004  
g = Upon review of survey data (1/27/2004), TOC elevation for MW-4 is actually 162.47 ft.  
h = Upon review of survey data (1/27/2004), MW-5 was not surveyed from the TOC. MW-5 was surveyed from the pavement due to inaccessibility to the TOC. Therefore, survey data for MW-5 from the TOC is unavailable.

**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.

The DTW's and TOC's for wells MW-5 and MW-6 were taken from Delta Environmental sampling sheets because the well logs were not available.

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 #374, 6407 Telegraph Ave., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-1</b>									
5/23/2003	<20,000	<4,000	1,600	<100	<100	<100	--	--	
11/20/2003	<2,000	<400	1,500	<10	<10	<10	--	--	a
05/14/2004	<5,000	<1,000	1,200	<25	<25	<25	<25	<25	
09/02/2004	<1,000	<200	660	<5.0	<5.0	<5.0	<5.0	<5.0	
11/04/2004	<2,000	<400	580	<10	<10	<10	<10	<10	
02/08/2005	<2,000	<400	610	<10	<10	<10	<10	<10	
05/09/2005	<1,000	<200	620	<5.0	<5.0	<5.0	<5.0	<5.0	a
08/11/2005	<500	250	390	<2.5	<2.5	2.6	<2.5	<2.5	a
11/18/2005	<500	<100	340	<2.5	<2.5	<2.5	<2.5	<2.5	a
02/16/2006	<1,500	<100	340	<2.5	<2.5	<2.5	<2.5	<2.5	
5/30/2006	<1,500	<100	420	<2.5	<2.5	<2.5	<2.5	<2.5	a
8/24/2006	<3,000	<200	180	<5.0	<5.0	<5.0	<5.0	<5.0	
11/1/2006	<3,000	<200	220	<5.0	<5.0	<5.0	<5.0	<5.0	a
2/7/2007	<3,000	<200	190	<5.0	<5.0	<5.0	<5.0	<5.0	
5/8/2007	<3,000	<200	420	<5.0	<5.0	<5.0	<5.0	<5.0	
8/8/2007	<300	<20	110	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>11/14/2007</b>	<b>&lt;1,500</b>	<b>&lt;100</b>	<b>210</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	
<b>MW-2</b>									
5/23/2003	<100	<20	55	<0.50	<0.50	0.53	--	--	
02/02/2004	<100	<20	37	<0.50	<0.50	<0.50	<0.50	<0.50	
09/02/2004	<500	<100	67	<2.5	<2.5	<2.5	<2.5	<2.5	
02/08/2005	<100	<20	30	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	35	<0.50	<0.50	<0.50	<0.50	<0.50	a
02/16/2006	<300	<20	39	<0.50	<0.50	<0.50	<0.50	<0.50	
8/24/2006	<300	<20	25	<0.50	<0.50	<0.50	<0.50	<0.50	
2/7/2007	<300	<20	7.2	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	7.2	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-3</b>									
5/23/2003	<100	<20	1.6	<0.50	<0.50	<0.50	--	--	
09/02/2004	<100	<20	6.5	<0.50	<0.50	<0.50	<0.50	<0.50	

**Table 2. Summary of Fuel Additives Analytical Data**  
**Station #374, 6407 Telegraph Ave., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-3 Cont.</b>									
08/11/2005	<100	<20	11	<0.50	<0.50	<0.50	<0.50	<0.50	a
8/24/2006	<300	<20	7.6	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-4</b>									
5/23/2003	<10,000	<2,000	<50	<50	<50	<50	--	--	
02/02/2004	<500	<100	29	<2.5	<2.5	2.6	<2.5	<2.5	
09/02/2004	<200	<40	28	<1.0	<1.0	<1.0	<1.0	<1.0	
02/08/2005	<5,000	<1,000	45	<25	<25	<25	<25	<25	
08/11/2005	<2,000	<400	32	<10	<10	<10	<10	<10	
02/16/2006	<6,000	<400	35	<10	<10	<10	<10	<10	
8/24/2006	<1,500	<100	39	<2.5	<2.5	<2.5	<2.5	<2.5	
2/7/2007	<6,000	<400	67	<10	<10	<10	<10	<10	
8/8/2007	<6,000	<400	72	<10	<10	<10	<10	<10	
<b>MW-5</b>									
1/29/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
5/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
9/4/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
09/02/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/24/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-6</b>									
5/23/2003	<100	<20	9.4	<0.50	<0.50	<0.50	--	--	
08/11/2005	<100	<20	7.9	<0.50	<0.50	<0.50	<0.50	<0.50	a
8/24/2006	<300	<20	12	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	0.57	<0.50	<0.50	<0.50	<0.50	<0.50	

**SYMBOLS AND ABBREVIATIONS:**

-- = Not analyzed/applicable/measured/available

< = Not detected at or above the laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = Micrograms per Liter

**FOOTNOTES:**

a = The continuing calibration verification for ethanol was outside of client contractual limits, however, it was within method acceptance limits. The data should still be useful for its intended purpose.

**NOTES:**

All volatile organic 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 #374, 6407 Telegraph Ave., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
1/31/1996	Southwest	0.04
4/10/1996	Southwest	0.04
7/16/1996	Southwest	0.03
10/14/1996	Southwest	0.03
3/27/1997	Southwest	0.04
5/27/1997	Southwest	0.03
8/12/1997	Southwest	0.04
11/17/1997	Southwest	0.03
3/16/1998	Southwest	0.03
5/12/1998	Southwest	0.04
7/27/1998	Southwest	0.04
10/15/1998	Southwest	0.02
2/18/1999	Southwest	0.05
5/24/1999	Southwest	0.03
8/27/1999	Southwest	0.03
10/26/1999	Southwest	0.03
2/3/2000	Southwest	0.047
6/20/2000	Southwest	0.035
9/28/2000	Southwest	0.034
12/17/2000	Southwest	0.032
3/23/2001	Southwest	0.034
6/21/2001	Southwest	0.032
9/23/2001	Southwest	0.029
12/31/2001	Southwest	0.043
3/21/2002	Southwest	0.038
4/17/2002	Southwest	0.031
8/12/2002	Southwest	0.032
12/6/2002	Southwest	0.020
1/29/2003	Southwest	0.027
5/23/2003	Southwest	0.039
9/4/2003	Southwest	0.033
11/20/2003	Southwest	0.029
2/2/2004	Southwest	0.043 (a)
5/14/2004	Southwest	0.037 (a)
9/2/2004	Southwest	0.027 (a)
11/4/2004	Southwest	0.034 (a)
2/8/2005	Southwest	0.061 (a)
5/9/2005	Southwest	0.08 (a)
8/11/2005	Southwest	0.06 (a)
11/18/2005	Southwest	0.07 (a)
2/16/2006	Southwest	0.09 (a)
5/30/2006	Southwest	0.06 (a)

**Table 3. Historical Ground-Water Flow Direction and Gradient**  
**Station #374, 6407 Telegraph Ave., Oakland, CA**

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
8/24/2006	Southwest	0.03
11/1/2006	Southwest	0.02
2/7/2007	Southwest	0.03
5/8/2007	Southwest	0.03
8/8/2007	Southwest	0.03
<b>11/14/2007</b>	<b>Southwest</b>	<b>0.03</b>

a = Gradients potentially suspect due to error in MW-4 and MW-5 TOC measuring point elevations discovered third quarter 2006.

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**

**STRATUS GROUND-WATER SAMPLING DATA PACKAGE  
(INCLUDES FIELD DATA SHEETS AND LABORATORY ANALYTICAL REPORT  
WITH CHAIN-OF-CUSTODY DOCUMENTATION)**



3330 Cameron Park Drive, Ste 550  
Cameron Park, California 95682  
**(530) 676-6004** ~ Fax: (530) 676-6005

December 7, 2007

Mr. Rob Miller  
Broadbent & Associates, Inc.  
2000 Kirman Avenue  
Reno, NV 89502

Re: Groundwater Sampling Data Package, BP Service Station No. 374, located at  
6407 Telegraph Avenue, Oakland, California

### **General Information**

*Data Submittal Prepared / Reviewed by:* Sandy Hayes / Jay Johnson

*Phone Number:* (530) 676-6000

*On-Site Supplier Representative:* Jerry Gonzales

*Sampling Date:* November 14, 2007

*Arrival:* 14:35                   *Departure:* 15:30

*Weather Conditions:* Clear

*Unusual Field Conditions:* None

*Scope of Work Performed:* Quarterly monitoring and sampling

*Variations from Work Scope:* None

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include field data sheets, chain of custody documentation, and certified analytical results. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretation or conclusions or recommendations. Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Sincerely,

**STRATUS ENVIRONMENTAL, INC.**

Jay R. Johnson, P.G.  
Project Manager



**Attachments:**

- Field Data Sheets
- Chain of Custody Documentation
- Certified Analytical Results

CC: Mr. Paul Supple, BP/ARCO

## *BP ALAMEDA PORTFOLIO*

## HYDROLOGIC DATA SHEET

AK 1435 VP 1530

Gauge Date: 11-19-07

**Project Name:** Oakland - 6407 Telegraph Ave.

**Field Technician:** Jerry

**Project Number:** 374

TOC = Top of Well Casing Elevation  
DTP = Depth to Free Product (FP or NAPH) Below TOC  
DTW = Depth to Groundwater Below TOC  
DTB = Depth to Bottom of Well Casing Below TOC

DIA = Well Casing Diameter  
ELEV = Groundwater Elevation  
DUP = Duplicate



## **Wellhead Observation Form**

**Account:** \_\_\_\_\_

Sampled by: Jerry

Date: 11-14-07

6407 Telegraph Avenue, Oakland  
GROUNDWATER MONITORING WELL SCHEDULES

SAMPLE MONTH: B

SITE INFORMATION			WELL SAMPLING SCHEDULE				FIELD TESTING			WELL CONSTRUCTION AND SAMPLING VOLUMES												
SITE	CITY	COUNTY	Well ID	Feb	May	Aug	Nov	Purge Method	pH/temp	temp.	DO	Redox	well diameter	top of screen	well depth	water depth	Qtr	3 well volumes	free product	Fire Watch	Traffic Control	
				1ST	2ND	3RD	4TH															
374	Oakland	Alameda	MW-1	GBOE	GBOE	GBOE	GBOE	TBD	yes	yes	no		4.0	7.0	26.67	7.75	2	37.03	N	Y	N	
			MW-2	GBOE	--	GBOE	--	TBD	yes	yes	no		4.0	7.0	26.29	8.00	2	35.80	N	Y	N	
			MW-3	--	--	GBOE	--	TBD	yes	yes	no		4.0	7.0	26.73	7.00	2	38.92	N	N	N	
			MW-4	GBOE	--	GBOE	--	TBD	yes	yes	no		4.0	7.0	26.95	8.26	2	36.58	N	Y	N	
			MW-5	--	--	GBOE	--	TBD	yes	yes	no		4.0	10.0	23.04	7.95	2	29.54	N	N	Y	
			MW-6	--	--	GBOE	--	TBD	yes	yes	no		4.0	5.0	14.56	5.18	2	16.36	N	N	N	
Comments:			Take Post-Purge D.O. readings (in a cup) on all sampled wells																			
Last samp			8/24/2006																			
GW Disposal:																						
MW-1 Behind fence in back of station, manager has key																						
MW-4 in planter, MW-6 in street																						
Four additional wells marked W-1-4																						

GBOE = GRO/BTEX/S FO + EDB, 1,2-DCA, Ethanol all by 8260

Bottle Set: (3) HCL Voas per well

GAUGING FREQUENCY: Quarterly (6 Wells)

Purge Method:

P = Purge

NP = No Purge

TBD = To Be Determined based on DTW vs. Top of Screen

QA/QC: Trip & Temp blanks to be submitted with all sampling events. Contact coordinator if blanks are not supplied with bottle set.  
Trip blanks to be submit "ON HOLD". TB ID = TB -"site#" - "MMDDYYYY" (ex. TB - 374 - 01182005)

Comments/Notes:

For Internal Use Only

Stratus Submittal Date:

SH-6/28/07

Broadbent Approval Date:

TV - 7/5/2007



A BP affiliated company

## Chain of Custody Record

Project Name: BP 374

BP BU/AR Region/Envos Segment: BP > Americas > West > Retail > CA > Alameda>374

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy): \_\_\_\_\_

Page 1 of 1

On-site Time: <u>14:35</u>	Temp: <u>75</u>
Off-site Time: <u>15:30</u>	Temp: <u>75</u>
Sky Conditions: <u>clear</u>	
Meteorological Events: <u>NONE</u>	
Wind Speed: <u>0</u>	Direction: <u>0</u>

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>374</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>6407 Telegraph Ave., Oakland</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95037</u>		<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>		Consultant/Contractor Project No.: <u>E374-04</u>
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	California Global ID #: <u>T0600100106</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Envos Project No.: <u>G0C21-0015</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Provision or RCOP (circle one) <u>Provision</u>	Report Type & QC Level: <u>* Level I with EDF</u>
<u>San Ramon, CA</u>	Phase/WBS: <u>04-Monitoring</u>	E-mail EDD To: <u>shayes@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Sub Phase/Task: <u>03-Analytical</u>	Invoice to: <u>Atlantic Richfield Co.</u>
Lab Bottle Order No: _____	Cost Element: <u>01-Contractor labor</u>	

Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air	Matrix	Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA
										Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO/BTEX/Oxy*	T <sub>2</sub> -DCA	Ethanol	EDB	DRO	
1	MW-1	1520	11-14-07	X					6				X		X	X	X			
2	TB 374 -111907	600	/	X					3			X			X	X	X	X		HOLD
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Sampler's Name: <u>Jerry Gonzales</u>	Relinquished By / Affiliation: <u>Jerry Gonzales</u>	Date: <u>11/15</u>	Time: <u>15:30</u>	Accepted By / Affiliation: <u>Ch. C.</u>	Date: <u>11/15</u>	Time: <u>15:30</u>
Sampler's Company: <u>David's Env</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						
Special Instructions: Please cc results to: <u>rmliller@broadbentinc.com</u>						
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		
BP COC Rev. 5 10/11/2006						

6 December, 2007

Jay Johnson  
Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park, CA 95682

RE: ARCO #0374, Oakland, CA  
Work Order: MQK0552

Enclosed are the results of analyses for samples received by the laboratory on 11/15/07 18:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Race  
Senior Project Manager

CA ELAP Certificate # 1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: ARCO #0374, Oakland, CA  
Project Number: G0C21-0015  
Project Manager: Jay Johnson

MQK0552  
Reported:  
12/06/07 17:19

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MQK0552-01	Water	11/14/07 15:20	11/15/07 18:40
TB374-111407	MQK0552-02	Water	11/14/07 06:00	11/15/07 18:40

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: ARCO #0374, Oakland, CA  
Project Number: G0C21-0015  
Project Manager: Jay Johnson

MQK0552  
Reported:  
12/06/07 17:19

**Total Purgeable Hydrocarbons by GC/MS (CA LUFT)**

**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MQK0552-01) Water Sampled: 11/14/07 15:20 Received: 11/15/07 18:40</b>									
<b>Gasoline Range Organics (C4-C12)</b>	<b>170</b>	50	ug/l	1	7K21005	11/20/07	11/21/07	LUFT GCMS	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	108 %	60-150		"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>	92 %	75-130		"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>	88 %	75-120		"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	83 %	55-130		"	"	"	"	"	

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: ARCO #0374, Oakland, CA  
Project Number: G0C21-0015  
Project Manager: Jay Johnson

MQK0552  
Reported:  
12/06/07 17:19

**Volatile Organic Compounds by EPA Method 8260B**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MQK0552-01) Water Sampled: 11/14/07 15:20 Received: 11/15/07 18:40</b>									
tert-Amyl methyl ether	ND	2.5	ug/l	5	7K26005	11/26/07	11/26/07	EPA 8260B	"
Benzene	ND	2.5	"	"	"	"	"	"	"
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	"
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	2.5	"	"	"	"	"	"	"
Ethanol	ND	1500	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	"
Ethylbenzene	ND	2.5	"	"	"	"	"	"	"
<b>Methyl tert-butyl ether</b>	<b>210</b>	2.5	"	"	"	"	"	"	"
Toluene	ND	2.5	"	"	"	"	"	"	"
Xylenes (total)	ND	2.5	"	"	"	"	"	"	"
<i>Surrogate: Dibromofluoromethane</i>	<i>101 %</i>		<i>75-130</i>	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>101 %</i>		<i>60-150</i>	"	"	"	"	"	"
<i>Surrogate: Toluene-d8</i>	<i>98 %</i>		<i>75-120</i>	"	"	"	"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>96 %</i>		<i>55-130</i>	"	"	"	"	"	"

Stratus Environmental Inc. [Arco]  
 3330 Cameron Park Dr., Suite 550  
 Cameron Park CA, 95682

Project: ARCO #0374, Oakland, CA  
 Project Number: G0C21-0015  
 Project Manager: Jay Johnson

MQK0552  
 Reported:  
 12/06/07 17:19

**Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch 7K21005 - EPA 5030B P/T / LUFT GCMS**

**Blank (7K21005-BLK1)**

Prepared & Analyzed: 11/21/07

Gasoline Range Organics (C4-C12)	ND	50	ug/l							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.38	"		2.50		95	60-150			
<i>Surrogate: Dibromoformmethane</i>	2.21	"		2.50		88	75-130			
<i>Surrogate: Toluene-d8</i>	2.21	"		2.50		88	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.07	"		2.50		83	55-130			

**Laboratory Control Sample (7K21005-BS2)**

Prepared & Analyzed: 11/21/07

Gasoline Range Organics (C4-C12)	525	50	ug/l	500		105	55-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.43	"		2.50		97	60-150			
<i>Surrogate: Dibromoformmethane</i>	2.15	"		2.50		86	75-130			
<i>Surrogate: Toluene-d8</i>	2.35	"		2.50		94	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.29	"		2.50		92	55-130			

**Laboratory Control Sample Dup (7K21005-BSD2)**

Prepared & Analyzed: 11/21/07

Gasoline Range Organics (C4-C12)	519	50	ug/l	500		104	55-130	1	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.43	"		2.50		97	60-150			
<i>Surrogate: Dibromoformmethane</i>	2.25	"		2.50		90	75-130			
<i>Surrogate: Toluene-d8</i>	2.32	"		2.50		93	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.20	"		2.50		88	55-130			

**Matrix Spike (7K21005-MS1)**

Source: MQK0554-02

Prepared & Analyzed: 11/21/07

Gasoline Range Organics (C4-C12)	708	50	ug/l	550	78.6	114	25-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.51	"		2.50		100	60-150			
<i>Surrogate: Dibromoformmethane</i>	2.42	"		2.50		97	75-130			
<i>Surrogate: Toluene-d8</i>	2.33	"		2.50		93	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.33	"		2.50		93	55-130			

**Matrix Spike Dup (7K21005-MSD1)**

Source: MQK0554-02

Prepared & Analyzed: 11/21/07

Gasoline Range Organics (C4-C12)	715	50	ug/l	550	78.6	116	25-150	1	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.56	"		2.50		102	60-150			
<i>Surrogate: Dibromoformmethane</i>	2.37	"		2.50		95	75-130			
<i>Surrogate: Toluene-d8</i>	2.36	"		2.50		94	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.34	"		2.50		94	55-130			

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: ARCO #0374, Oakland, CA  
Project Number: G0C21-0015  
Project Manager: Jay Johnson

MQK0552  
Reported:  
12/06/07 17:19

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch 7K26005 - EPA 5030B P/T / EPA 8260B**

**Blank (7K26005-BLK1)** Prepared & Analyzed: 11/26/07

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
<i>Surrogate: Dibromofluoromethane</i>	2.54		"	2.50		102	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.59		"	2.50		104	60-150			
<i>Surrogate: Toluene-d8</i>	2.51		"	2.50		100	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.34		"	2.50		94	55-130			

**Laboratory Control Sample (7K26005-BS1)**

Prepared & Analyzed: 11/26/07

tert-Amyl methyl ether	11.2	0.50	ug/l	10.0		112	75-125			
Benzene	11.2	0.50	"	10.0		112	75-120			
tert-Butyl alcohol	195	20	"	200		97	80-120			
Di-isopropyl ether	10.8	0.50	"	10.0		108	70-130			
1,2-Dibromoethane (EDB)	11.3	0.50	"	10.0		113	75-130			
1,2-Dichloroethane	10.7	0.50	"	10.0		107	65-130			
Ethanol	226	300	"	200		113	50-150			
Ethyl tert-butyl ether	10.7	0.50	"	10.0		107	75-130			
Ethylbenzene	11.7	0.50	"	10.0		117	80-125			
Methyl tert-butyl ether	10.5	0.50	"	10.0		105	80-130			
Toluene	11.3	0.50	"	10.0		113	80-120			
Xylenes (total)	35.6	0.50	"	30.0		119	80-125			
<i>Surrogate: Dibromofluoromethane</i>	2.56		"	2.50		102	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.50		"	2.50		100	60-150			
<i>Surrogate: Toluene-d8</i>	2.57		"	2.50		103	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.45		"	2.50		98	55-130			

Stratus Environmental Inc. [Arco]  
 3330 Cameron Park Dr., Suite 550  
 Cameron Park CA, 95682

Project: ARCO #0374, Oakland, CA  
 Project Number: G0C21-0015  
 Project Manager: Jay Johnson

MQK0552  
 Reported:  
 12/06/07 17:19

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7K26005 - EPA 5030B P/T / EPA 8260B**

Matrix Spike (7K26005-MS1)	Source: MQK0590-11	Prepared & Analyzed: 11/26/07							
tert-Amyl methyl ether	11.4	0.50	ug/l	10.0	ND	114	75-140		
Benzene	10.7	0.50	"	10.0	ND	107	80-120		
tert-Butyl alcohol	187	20	"	200	1.52	93	80-125		
Di-isopropyl ether	10.8	0.50	"	10.0	ND	108	75-135		
1,2-Dibromoethane (EDB)	11.1	0.50	"	10.0	ND	111	80-135		
1,2-Dichloroethane	10.6	0.50	"	10.0	ND	106	65-145		
Ethanol	166	300	"	200	ND	83	50-150		
Ethyl tert-butyl ether	10.9	0.50	"	10.0	ND	109	80-135		
Ethylbenzene	11.1	0.50	"	10.0	ND	111	75-130		
Methyl tert-butyl ether	10.6	0.50	"	10.0	ND	106	75-145		
Toluene	10.9	0.50	"	10.0	ND	109	80-125		
Xylenes (total)	33.6	0.50	"	30.0	ND	112	75-125		
<i>Surrogate: Dibromofluoromethane</i>	2.57		"	2.50		103	75-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.60		"	2.50		104	60-150		
<i>Surrogate: Toluene-d8</i>	2.61		"	2.50		104	75-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	2.58		"	2.50		103	55-130		

Matrix Spike Dup (7K26005-MSD1)	Source: MQK0590-11	Prepared & Analyzed: 11/26/07							
tert-Amyl methyl ether	12.2	0.50	ug/l	10.0	ND	122	75-140	6	25
Benzene	11.4	0.50	"	10.0	ND	114	80-120	6	20
tert-Butyl alcohol	199	20	"	200	1.52	99	80-125	6	25
Di-isopropyl ether	11.5	0.50	"	10.0	ND	115	75-135	7	25
1,2-Dibromoethane (EDB)	11.8	0.50	"	10.0	ND	118	80-135	6	30
1,2-Dichloroethane	11.2	0.50	"	10.0	ND	112	65-145	6	25
Ethanol	188	300	"	200	ND	94	50-150	12	25
Ethyl tert-butyl ether	11.5	0.50	"	10.0	ND	115	80-135	6	25
Ethylbenzene	11.6	0.50	"	10.0	ND	116	75-130	4	20
Methyl tert-butyl ether	11.2	0.50	"	10.0	ND	112	75-145	6	25
Toluene	11.3	0.50	"	10.0	ND	113	80-125	4	25
Xylenes (total)	34.7	0.50	"	30.0	ND	116	75-125	3	20
<i>Surrogate: Dibromofluoromethane</i>	2.57		"	2.50		103	75-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.58		"	2.50		103	60-150		
<i>Surrogate: Toluene-d8</i>	2.56		"	2.50		102	75-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	2.61		"	2.50		104	55-130		

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: ARCO #0374, Oakland, CA  
Project Number: G0C21-0015  
Project Manager: Jay Johnson

MQK0552  
Reported:  
12/06/07 17:19

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



## Chain of Custody Record

Project Name: BP 374

BP BU/AR Region/Envos Segment: BP > Americas > West > Retail > CA > Alameda>374

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

Page 1 of 1

On-site Time: <u>1435</u>	Temp: <u>75</u>
Off-site Time: <u>1530</u>	Temp: <u>75</u>
Sky Conditions: <u>clear</u>	
Meteorological Events: <u>none</u>	
Wind Speed: <u>0</u>	Direction: <u>0</u>

Lab Name: TestAmerica				BP/AR Facility No.: <u>374</u>				Consultant/Contractor: Stratus Environmental, Inc.												
Address: 885 Jarvis Drive				BP/AR Facility Address: <u>6407 Telegraph Ave., Oakland</u>				Address: 3330 Cameron Park Drive, Suite 550												
Morgan Hill, CA 95037				Site Lat/Long:				Cameron Park, CA 95682												
Lab PM: Lisa Race				California Global ID #: <u>T0600100105</u>				Consultant/Contractor Project No.: E374-04												
Tele/Fax: 408-782-8156 408-782-6308 (fax)				Envos Project No.: <u>GOC21-0013</u>				Consultant/Contractor PM: Jay Johnson												
BP/AR PM Contact: Paul Supple				Provision or RCOP (circle one) Provision				Tele/Fax: (530) 676-6000 / (530) 676-6005												
Address: 2010 Crow Canyon Place, Suite 150				Phase/WBS: 04-Monitoring				Report Type & QC Level: Level 1 with EDF												
San Ramon, CA				Sub Phase/Task: 03-Analytical				E-mail EDD To: shayes@stratusinc.net												
Tele/Fax: 925-275-3506				Cost Element: 01-Contractor labor				Invoice to: Atlantic Richfield Co.												
Lab Bottle Order No:				Matrix				Preservative												
Item No.	Sample Description			Laboratory No.	No. of Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GROTEK/Oxy*	1,2 DCA	Ethanol	EDB	DRO	Requested Analysis		Sample Point Lat/Long and Components		
				<u>UQK0652</u>	6			X											*Oxy = MTBD, TAME, ETBE, DIPE, TBA	
1	MW-1			1520	111907	X				X		X	X	X						
2	<u>IB 374 - 111907</u>			600	1	X			X		X	X	X				HOLD			
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Sampler's Name: Jerry Gonzales

Sampler's Company: Dowd's ENV

Shipment Date:

Shipment Method:

Shipment Tracking No:

Special Instructions:

Please cc results to: rmler@broadbentinc.com

Custody Seals In Place: Yes  No

Temp Blank: Yes  No

Cooler Temp on Receipt 44 °F/C

Trip Blank: Yes  No

MS/MSD Sample Submitted: Yes  No

# TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME:	<u>AD20314</u>	DATE REC'D AT LAB:	<u>11/15/07</u>					
REC. BY (PRINT)	<u>DJ.</u>	TIME REC'D AT LAB:	<u>1940</u>	For Regulatory Purposes?				
WORKORDER:	<u>NAK0552</u>	DATE LOGGED IN:	<u>11/16/07</u>	<input type="checkbox"/> DRINKING WATER <input type="checkbox"/> WASTE WATER <input checked="" type="checkbox"/> OTHER				
CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <u>Absent</u> <u>Intact / Broken*</u>								
2. Chain-of-Custody <u>Present / Absent*</u>								
3. Traffic Reports or Packing List: <u>Present / Absent</u>								
4. Airbill: Airbill / Sticker <u>Present / Absent</u>								
5. Airbill #: _____								
6. Sample Labels: <u>Present / Absent</u>								
7. Sample IDs: <u>Listed / Not Listed</u> on Chain-of-Custody								
8. Sample Condition: <u>Intact / Broken*</u> <u>Leaking*</u>								
9. Does Information on chain-of-custody, traffic reports and sample labels agree? <u>Yes / No*</u>								
10. Sample received within hold time? <u>Yes / No*</u>								
11. Adequate sample volume received? <u>Yes / No*</u>								
12. Proper preservatives used? <u>Yes / No*</u>								
13. Trip Blank / Temp Blank Received? (circle which, if yes) <u>Yes / No*</u>								
14. Read Temp: <u>50°</u> Correction Factor: <u>-1.0</u> Corrected Temp: <u>4.0°</u> Is corrected temp. 0-6°C? <u>Yes / No**</u>								
**Exception (if any): Metals / Perchlorate DFF on Ice or Problem COC								

\*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

**APPENDIX B**

**GEOTRACKER UPLOAD CONFIRMATION**

# Electronic Submittal Information

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

## UPLOADING A GEO\_WELL FILE

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

**Submittal Title:** 4Q07 GEO\_WELL 374

**Facility Global ID:** T0600100106

**Facility Name:** ARCO #0374

**Submittal Date/Time:** 1/18/2008 3:17:06 PM

**Confirmation Number:** **3502612054**

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(CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).

# Electronic Submittal Information

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Your EDF file has been successfully uploaded!

**Confirmation Number:** 8408220529

**Date/Time of Submittal:** 12/19/2007 12:00:22 PM

**Facility Global ID:** T0600100106

**Facility Name:** ARCO #0374

**Submittal Title:** 4Q07 GW Monitoring

**Submittal Type:** GW Monitoring Report

**Click [here](#) to view the detections report for this upload.**

ARCO #0374  
6407 TELEGRAPH  
OAKLAND, CA 94609

**Regional Board - Case #:** 01-0114  
SAN FRANCISCO BAY RWQCB (REGION 2)  
**Local Agency (lead agency) - Case #:** RO0000078  
ALAMEDA COUNTY LOP - (SP)

<b>CONF #</b>	<b>TITLE</b>	<b>QUARTER</b>
8408220529	4Q07 GW Monitoring	Q4 2007
<b>SUBMITTED BY</b>	<b>SUBMIT DATE</b>	<b>STATUS</b>
Broadbent & Associates, Inc.	12/19/2007	PENDING REVIEW

## **SAMPLE DETECTIONS REPORT**

# FIELD POINTS SAMPLED	1
# FIELD POINTS WITH DETECTIONS	1
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	1
SAMPLE MATRIX TYPES	WATER

## **METHOD QA/QC REPORT**

METHODS USED	8260FA,8260TPH
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	N

## **QA/QC FOR 8021/8260 SERIES SAMPLES**

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

## **WATER SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPDL</u>
QCTB SAMPLES	N	0
QCCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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