



Atlantic Richfield Company
(a BP affiliated company)

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

15 October 2008

Re: Third Quarter 2008 Ground-Water Monitoring Report
Atlantic Richfield Company Station #374
6407 Telegraph Avenue
Oakland, California
ACEH Case # RO0000078

RECEIVED

2:26 pm, Oct 23, 2008

Alameda County
Environmental Health



“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 Manger

Third Quarter 2008 Ground-Water Monitoring Report

Atlantic Richfield Company Station #374

6407 Telegraph Avenue

Oakland, California

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

15 October 2008

Project No. 06-08-602

15 October 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: Third Quarter 2008 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 *Third Quarter 2008 Ground-Water Monitoring Report* for Atlantic Richfield Company Station #374 located at 6407 Telegraph Avenue, Oakland, California (Site). This report presents results of ground-water monitoring conducted at the Site during the Third Quarter of 2008.

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

Sincerely,

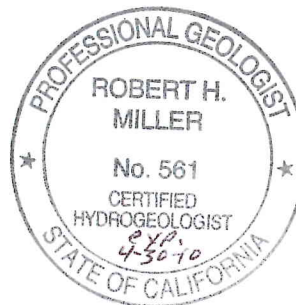
BROADBENT & ASSOCIATES, INC.



Thomas A. Venus, P.E.
Senior Engineer



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



Enclosures

cc: Mr. Paresh Khatri, 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 (Third Quarter 2008):

1. Prepared and submitted Second Quarter 2008 Ground-Water Monitoring Report.
2. Conducted ground-water monitoring/sampling for Third Quarter 2008. Work performed on 21 August 2008 by Stratus Environmental, Inc. (Stratus).

WORK PROPOSED FOR NEXT QUARTER (Fourth Quarter 2008):

1. Prepared and submitted this Third Quarter 2008 Ground-Water Monitoring Report (contained herein).
2. Conduct quarterly ground-water monitoring/sampling for Fourth Quarter 2008.
3. Implement Work Plan for On-Site Soil Investigation (BAI, 6/27/2008), as amended (BAI, 9/23/2008) upon approval from ACEH.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	Ground-water monitoring/sampling
Frequency of ground-water monitoring:	Quarterly: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6
Frequency of ground-water sampling:	Quarterly: MW-1 Semi-Annually (1Q and 3Q): MW-2 and MW-4 Annually (3Q): MW-3, MW-5, and MW-6
Is free product (FP) present on-site:	No
Current remediation techniques:	NA
Depth to ground water (below TOC):	6.14 ft (MW-6) to 8.96 ft (MW-4)
General ground-water flow direction:	Southwest
Approximate hydraulic gradient:	0.03 ft/ft

DISCUSSION:

Third quarter 2008 ground-water monitoring and sampling was conducted at Station #374 on 21 August 2008 by Stratus. Water levels were gauged in each of 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 6.14 ft at MW-6 to 8.96 ft at MW-4. Resulting ground-water surface elevations ranged from 155.97 ft above mean sea level in well MW-1 to 142.68 ft at well MW-5. 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 0.03 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 wells MW-1 through MW-6 at the Site. No irregularities were reported during sampling. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Garden Grove, California), for analysis of Gasoline Range Organics (GRO, C6-12) by EPA Method 8015B; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and 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.

Gasoline range organics (GRO) were detected above the laboratory reporting limits in one of the six wells sampled at a concentration of 3,700 micrograms per liter ($\mu\text{g/L}$) in well MW-4. Benzene was detected above the laboratory reporting limit in two of the six wells sampled at concentrations up to 1,100 $\mu\text{g/L}$ in well MW-4. Toluene, ethylbenzene, and total xylenes were detected above laboratory reporting limits in well MW-4 at concentrations of 26 $\mu\text{g/L}$, 85 $\mu\text{g/L}$, and 130 $\mu\text{g/L}$, respectively. MTBE was detected above the laboratory reporting limits in five of the six wells sampled at concentrations up to 170 $\mu\text{g/L}$ in well MW-1. The remaining fuel additives and oxygenates were not detected above their laboratory reporting limits in the six wells sampled 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 Calscience Environmental Laboratories, Inc. (Garden Grove, California). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. 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.

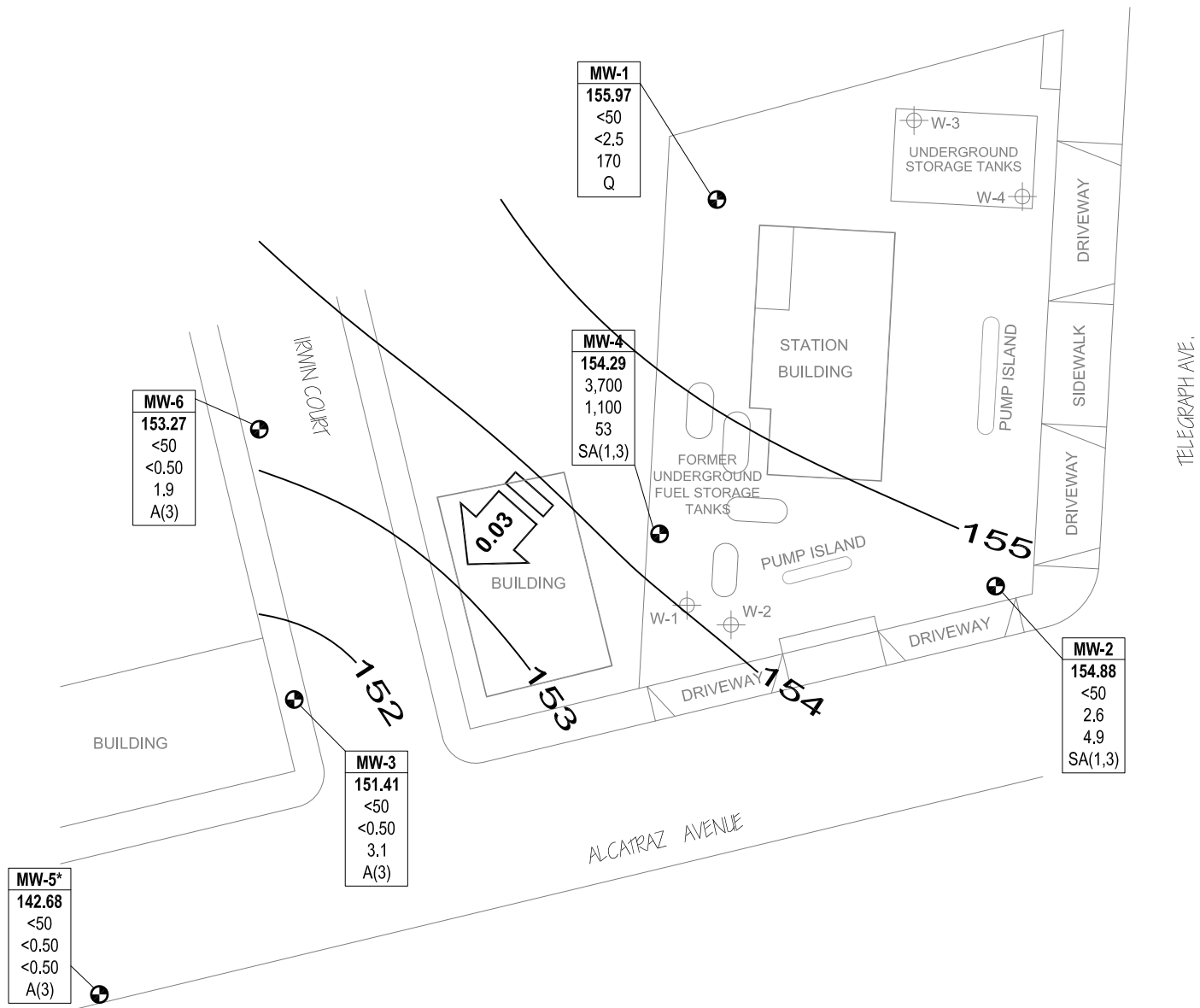
ATTACHMENTS:

- Drawing 1. Ground-Water Elevation Contours and Analytical Summary Map, 21 August 2008, 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, California
- Table 2. Summary of Fuel Additives Analytical Data, Station #374, 6407 Telegraph Ave., Oakland, California

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

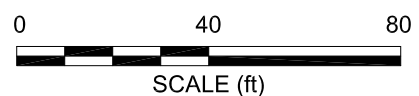
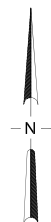
Appendix A. Stratus Ground-Water Sampling Data Package (Includes Field Data Sheets, Laboratory Analytical Report with Chain-of-Custody Documentation, and Field Procedures)

Appendix B. GeoTracker Upload Confirmations



LEGEND

- MONITORING WELL
 - TANK PIT MONITORING WELL
- | | |
|----------------|---|
| Well | WELL DESIGNATION |
| ELEV | GROUND-WATER ELEVATION (FT MSL) |
| GRO | GRO, BENZENE & MTBE CONCENTRATIONS IN GROUND WATER (µg/L) |
| Benzene | |
| MTBE | |
| A/Q/SA | 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
 - APPROXIMATE GROUND-WATER FLOW AND DIRECTION (FT/FT)
 - 152 GROUND-WATER ELEVATION CONTOUR (FT MSL)
 - * Elevation not used for contours



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

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	5.5	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	4.0	390	0.8	6.6
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
11/14/2007	NP		164.57	7.00	27.0	8.01	156.56	170	<2.5	<2.5	<2.5	<2.5	210	1.92	6.49

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 Cont.															
2/22/2008	P		164.57	7.00	27.0	6.00	158.57	<50	<0.50	<0.50	<0.50	<0.50	250	2.57	6.65
5/24/2008	NP		164.57	7.00	27.0	7.58	156.99	<50	<5.0	<5.0	<5.0	<5.0	380	2.28	6.81
8/21/2008	NP		164.57	7.00	27.0	8.60	155.97	<50	<2.5	<2.5	<2.5	<2.5	170	2.16	6.98
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

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-2 Cont.															
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	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
2/22/2008	P		163.46	7.00	27.0	6.75	156.71	<50	<0.50	<0.50	<0.50	<0.50	24	2.18	7.02
5/24/2008	--		163.46	7.00	27.0	7.98	155.48	--	--	--	--	--	--	--	--
8/21/2008	NP		163.46	7.00	27.0	8.58	154.88	<50	2.6	<0.50	<0.50	<0.50	4.9	2.20	7.11
MW-3															
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	--	--	--	--	--	--	--	--

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-3 Cont.															
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	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
2/22/2008	--		159.21	7.00	27.0	5.50	153.71	--	--	--	--	--	--	--	--
5/24/2008	--		159.21	7.00	27.0	7.03	152.18	--	--	--	--	--	--	--	--
8/21/2008	NP		159.21	7.00	27.0	7.80	151.41	<50	<0.50	<0.50	<0.50	<0.50	3.1	2.11	6.84
MW-4															
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

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-4 Cont.															
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	--	--	--	--	--	--	--	--
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
11/14/2007	--		163.25	7.00	27.0	8.53	154.72	--	--	--	--	--	--	--	--
2/22/2008	P		163.25	7.00	27.0	6.25	157.00	3,900	880	39	180	92	70	2.31	6.87
5/24/2008	--	d	163.25	7.00	27.0	--	--	--	--	--	--	--	--	--	--
8/21/2008	NP		163.25	7.00	27.0	8.96	154.29	3,700	1,100	26	85	130	53	2.26	6.80
MW-5															
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

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-5 Cont.															
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	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
2/22/2008	--		151.33	10.00	23.0	7.48	143.85	--	--	--	--	--	--	--	--
5/24/2008	--		151.33	10.00	23.0	8.12	143.21	--	--	--	--	--	--	--	--
8/21/2008	P		151.33	10.00	23.0	8.65	142.68	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.14	6.54
MW-6															
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	<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	--	--	--	--	--	--	--	--

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-6 Cont.															
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	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	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	--	--	--	--	--	--	--	--
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	--		159.41	5.00	15.0	5.38	154.03	--	--	--	--	--	--	--	--
2/22/2008	--		159.41	5.00	15.0	4.70	154.71	--	--	--	--	--	--	--	--
5/24/2008	--		159.41	5.00	15.0	5.25	154.16	--	--	--	--	--	--	--	--
8/21/2008	NP		159.41	5.00	15.0	6.14	153.27	<50	<0.50	<0.50	<0.50	<0.50	1.9	1.99	7.13

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	
MW-1									
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	
11/14/2007	<1,500	<100	210	<2.5	<2.5	<2.5	<2.5	<2.5	
2/22/2008	<300	<10	250	<0.50	<0.50	1.5	<0.50	<0.50	
5/24/2008	<3,000	<100	380	<5.0	<5.0	<5.0	<5.0	<5.0	
8/21/2008	<1,500	<50	170	<2.5	<2.5	<2.5	<2.5	<2.5	
MW-2									
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	
2/22/2008	<300	<10	24	<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	
MW-2 Cont.									
8/21/2008	<300	<10	4.9	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-3									
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	
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	
8/21/2008	<300	<10	3.1	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
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	
2/22/2008	<6,000	<200	70	<10	<10	<10	<10	<10	
8/21/2008	<12,000	<400	53	<20	<20	<20	<20	<20	
MW-5									
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	
8/21/2008	<300	<10	<0.50	<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	
MW-6									
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	
8/21/2008	<300	<10	1.9	<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
11/14/2007	Southwest	0.03
2/22/2008	Southwest	0.03
5/24/2008	Southwest	0.03
8/21/2008	Southwest	0.03

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



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

September 5, 2008

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

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

General Information

Data Submittal Prepared / Reviewed by: Becky Carroll / Jay Johnson

Phone Number: (530) 676-6000

On-Site Supplier Representative: Roberto Heimlich

Sampling Date: August 21, 2008

Arrival: 6:00 *Departure:* 8:30

Weather Conditions: Clear

Unusual Field Conditions: None noted.

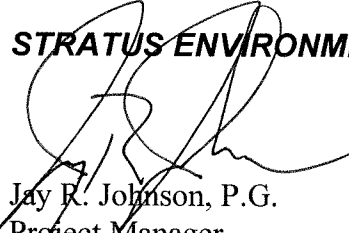
Scope of Work Performed: Quarterly monitoring and sampling.

Variations from Work Scope: None noted.

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include field data sheets, non-hazardous waste data form, chain of custody documentation, certified analytical results, and field procedures for groundwater sampling. 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
- Non-Hazardous Waste Data Form
- Chain of Custody Documentation
- Certified Analytical Results
- Field Procedures for Groundwater Monitoring

CC: Mr. Paul Supple, BP/ARCO

BP Alameda Portfolio
HYDROLOGIC DATA SHEET

AT: 6:00

Gauge Date: 8/21/08

Project Name: 6407 Telegraph Ave, Oakland

Field Technician: ROBERTO

Project Number: 374

TOC = Top of Well Casing Elevation
 TOS = Depth to Top of Screen
 DTW = Depth to Groundwater Below TOC
 DTB = Depth to Bottom of Well Casing Below TOC

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

WELL OR LOCATION	TIME	MEASUREMENT						PURGE & SAMPLE	SHEEN CONFIRMATION (w/baller)	COMMENTS
		TOC	TOS	DTW	DTB	DIA	ELEV			
MW-1	6:17			8.60	26.55	4"				
MW-2	6:12			8.58	26.15	4"				
MW-3	6:29			7.80	26.65	4"				
MW-4	6:06			8.96	26.80	4"				
MW-5	6:22			8.65	22.95	4"				
MW-6	6:35			6.14	14.45	4"				

FW: Arturo Heimlich
 pH/Conductivity/temperature Meter - YSI Model 63
 DO Meter - YSI 55 Series (DO is always measured before purge)
 Please refer to groundwater sampling field procedures

Calibration Date
 pH 8/21/08
 Conductivity 8/21/08
 DO 8/21/08

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 374 PURGED BY: RH WELL I.D.: MW-1
 CLIENT NAME: _____ SAMPLED BY: RH SAMPLE I.D.: MW-1
 LOCATION: Oakland - 6407 Telegraph Ave. QA SAMPLES: _____

DATE PURGED 8/21/08 START (2400hr) 8:09 END (2400hr) 8:19
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 8:16
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" _____ 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) _____

DEPTH TO BOTTOM (feet) = 26.55 CASING VOLUME (gal) = NP
 DEPTH TO WATER (feet) = 8.60 CALCULATED PURGE (gal) = NP
 WATER COLUMN HEIGHT (feet) = _____ ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>8:12</u>	<u>NP</u>	<u>19.2</u>	<u>823</u>	<u>6.98</u>	<u>clear</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

NO PURGE

SAMPLE DEPTH TO WATER: 8.60 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE: YES NO ANALYSES: SWD
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS / HCL

PURGING EQUIPMENT

Bladder Pump
 Centrifugal Pump NA
 Submersible Pump
 Peristaltic Pump
 Bailer (Teflon)
 Bailer (PVC)
 Bailer (Stainless Steel)
 Dedicated
 Other: _____
 Pump Depth: NA

SAMPLING EQUIPMENT

Bladder Pump
 Centrifugal Pump Bailer (PVC or disposable)
 Submersible Pump
 Peristaltic Pump
 Bailer (Stainless Steel)
 Dedicated
 Other: _____

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: NO 2:16

SIGNATURE: [Signature]

BP ALAMEDA PORTFOLIO
WATER SAMPLE FIELD DATA SHEET

PROJECT #: 374 PURGED BY: RH WELL I.D.: MW-2
 CLIENT NAME: _____ SAMPLED BY: RH SAMPLE I.D.: MW-2
 LOCATION: Oakland - 6407 Telegraph Ave. QA SAMPLES: _____

DATE PURGED 8/21/08 START (2400hr) 7:52 END (2400hr) 8:01
 DATE SAMPLED 8/21/08 NP SAMPLE TIME (2400hr) 7:59
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" _____ 3" _____ 4" 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 26.15 CASING VOLUME (gal) = _____
 DEPTH TO WATER (feet) = 8.58 NP CALCULATED PURGE (gal) = NP
 WATER COLUMN HEIGHT (feet) = _____ ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>7:55</u>	<u>NP</u>	<u>21.8</u>	<u>603</u>	<u>7.11</u>	<u>clear</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

NO PURGE

SAMPLE DEPTH TO WATER: 8.58 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE: YES _____ NO ANALYSES: GW
 ODOR: YES SAMPLE VESSEL / PRESERVATIVE: 6 VOAS / HCL

PURGING EQUIPMENT

_____ Bladder Pump _____ Bailer (Teflon)
 _____ Centrifugal Pump NA _____ Bailer (PVC)
 _____ Submersible Pump _____ Bailer (Stainless Steel)
 _____ Peristaltic Pump _____ Dedicated _____
 Other: _____
 Pump Depth: NA

SAMPLING EQUIPMENT

_____ Bladder Pump _____ Bailer (Teflon)
 _____ Centrifugal Pump Bailer (_____ PVC or disposable)
 _____ Submersible Pump _____ Bailer (Stainless Steel)
 _____ Peristaltic Pump _____ Dedicated _____
 Other: _____

WELL INTEGRITY: GOOD LOCK#: MASTED

REMARKS: DO 2.20

SIGNATURE: [Signature] Page _____ of _____

BP ALAMEDA PORTFOLIO
WATER SAMPLE FIELD DATA SHEET

PROJECT #: 374 PURGED BY: RH WELL ID.: MW-3
 CLIENT NAME: _____ SAMPLED BY: RH SAMPLE I.D.: MW-3
 LOCATION: Oakland - 6407 Telegraph Ave. QA SAMPLES: _____

DATE PURGED 8/21/08 NP START (2400hr) 7:19 END (2400hr) 7:29
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 7:26
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" _____ 3" _____ 4" ✓ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 26.65 NP CASING VOLUME (gal) = _____
 DEPTH TO WATER (feet) = 7.80 CALCULATED PURGE (gal) = _____
 WATER COLUMN HEIGHT (feet) = _____ ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>7:22</u>	<u>NP</u>	<u>19.5</u>	<u>597</u>	<u>6.84</u>	<u>clear</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

SAMPLE DEPTH TO WATER: 7.80 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE: ✓ YES _____ NO _____ ANALYSES: SWO
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS / HCL

PURGING EQUIPMENT

_____ Bladder Pump _____ Bailer (Teflon)
 _____ Centrifugal Pump _____ Bailer (PVC)
 _____ Submersible Pump NA _____ Bailer (Stainless Steel)
 _____ Peristaltic Pump _____ Dedicated _____
 Other: _____
 Pump Depth: NA

SAMPLING EQUIPMENT

_____ Bladder Pump _____ Bailer (Teflon)
 _____ Centrifugal Pump ✓ Bailer (_____ PVC or ✓ disposable)
 _____ Submersible Pump _____ Bailer (Stainless Steel)
 _____ Peristaltic Pump _____ Dedicated _____
 Other: _____

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: DO 2.11

SIGNATURE: [Signature] Page _____ of _____

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 374 PURGED BY: RH WELL I.D.: MW-4
 CLIENT NAME: _____ SAMPLED BY: RM SAMPLE I.D.: MW-4
 LOCATION: Oakland - 6407 Telegraph Ave. QA SAMPLES: _____

DATE PURGED 8/21/08 START (2400hr) 7:36 END (2400hr) 7:45
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 7:43
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" _____ 3" _____ 4" ✓ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 26.80 CASING VOLUME (gal) = N/A
 DEPTH TO WATER (feet) = 8.96 CALCULATED PURGE (gal) = N/A
 WATER COLUMN HEIGHT (feet) = _____ ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>7:39</u>	<u>N/A</u>	<u>18.7</u>	<u>1041</u>	<u>6.80</u>	<u>clear</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

SAMPLE DEPTH TO WATER: 8.96 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE: YES NO ANALYSES: SWD
 ODOR: YES SAMPLE VESSEL / PRESERVATIVE: 6 VOAG / HCL

PURGING EQUIPMENT	SAMPLING EQUIPMENT
<input type="checkbox"/> Bladder Pump <input type="checkbox"/> Centrifugal Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump Other: _____ Pump Depth: _____	<input type="checkbox"/> Bladder Pump <input type="checkbox"/> Centrifugal Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump Other: _____
<input type="checkbox"/> Bailer (Teflon) <input type="checkbox"/> Bailer (PVC) <input type="checkbox"/> Bailer (Stainless Steel) <input type="checkbox"/> Dedicated _____	<input type="checkbox"/> Bailer (Teflon) <input checked="" type="checkbox"/> Bailer (_____ PVC or <input checked="" type="checkbox"/> disposable) <input type="checkbox"/> Bailer (Stainless Steel) <input type="checkbox"/> Dedicated _____

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: DO 2.26

SIGNATURE: [Signature] Page _____ of _____

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 374 PURGED BY: RH WELL ID.: MW-5
 CLIENT NAME: _____ SAMPLED BY: RH SAMPLE I.D.: MW-5
 LOCATION: Oakland - 6407 Telegraph Ave. QA SAMPLES: _____

DATE PURGED 8/21/08 START (2400hr) 6:40 END (2400hr) 6:58
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 6:56
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" _____ 3" _____ 4" ✓ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 22.95 CASING VOLUME (gal) = 9.5
 DEPTH TO WATER (feet) = 8.65 CALCULATED PURGE (gal) = 28.7
 WATER COLUMN HEIGHT (feet) = 14.3 ACTUAL PURGE (gal) = 2.9

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>6:43</u>	<u>10</u>	<u>20.7</u>	<u>614</u>	<u>6.65</u>	<u>clear</u>	_____
<u>✓</u>	<u>6:46</u>	<u>20</u>	<u>21.1</u>	<u>582</u>	<u>6.60</u>	<u>✓</u>	_____
	<u>6:50</u>	<u>29</u>	<u>21.5</u>	<u>599</u>	<u>6.54</u>		_____

SAMPLE DEPTH TO WATER: 10.02 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE: YES NO ANALYSES: SWD
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 UCAS / HCL

PURGING EQUIPMENT

- Bladder Pump
- Centrifugal Pump
- Submersible Pump
- Peristaltic Pump
- Other: _____

- Bailer (Teflon)
- Bailer (PVC)
- Bailer (Stainless Steel)
- Dedicated _____

Pump Depth: 22

SAMPLING EQUIPMENT

- Bladder Pump
- Centrifugal Pump
- Submersible Pump
- Peristaltic Pump
- Other: _____

- Bailer (Teflon)
- Bailer (PVC or disposable)
- Bailer (Stainless Steel)
- Dedicated _____

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: DO 2.14

SIGNATURE: [Signature] Page _____ of _____

BP ALAMEDA PORTFOLIO
WATER SAMPLE FIELD DATA SHEET

PROJECT #: 374 PURGED BY: RH WELL I.D.: MW-6
 CLIENT NAME: _____ SAMPLED BY: RH SAMPLE I.D.: MW-6
 LOCATION: Oakland - 6407 Telegraph Ave. QA SAMPLES: _____

DATE PURGED 8/21/08 START (2400hr) 7:05 END (2400hr) 7:13
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 7:11
 SAMPLE TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" _____ 3" _____ 4" 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

DEPTH TO BOTTOM (feet) = 14.45 CASING VOLUME (gal) = 5.5
 DEPTH TO WATER (feet) = 6.14 CALCULATED PURGE (gal) = _____
 WATER COLUMN HEIGHT (feet) = 8.31 ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>7:08</u>	<u>NP</u>	<u>20.4</u>	<u>419.9</u>	<u>7.13</u>	<u>clear</u>	
<u>✓</u>							

SAMPLE DEPTH TO WATER: 6.14 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE: YES NO ANALYSES: SWD
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS / HCL

PURGING EQUIPMENT
 Bladder Pump _____
 Centrifugal Pump NP _____
 Submersible Pump _____
 Peristaltic Pump _____
 Other: _____
 Pump Depth: NA

SAMPLING EQUIPMENT
 Bladder Pump _____
 Centrifugal Pump _____
 Submersible Pump _____
 Peristaltic Pump _____
 Other: _____
 Bailer (Teflon) _____
 Bailer (PVC or disposable) _____
 Bailer (Stainless Steel) _____
 Dedicated _____

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: PO 1.99

SIGNATURE: [Signature] Page ___ of ___

WELLHEAD OBSERVATION FORM



Site Name/Number: 374

Date: 8/21/08

Technician: ROBERTO

Well I.D.	Box in Good Condition? <small>X = Yes Blank = No</small>	Lock Missing? <small>X = Yes (replace) Blank = No</small>	Water in Wellbox? <small>X = Yes Blank = No</small>	Water Level Relative to Cap? <small>A = Above cap B = Below cap L = Level/flat</small>	Well Cap? <small>I = Intact M = Missing or Compromised (replace)</small>	Bolts Missing? <small>X = Yes Blank = No</small>	Bolts Stripped? <small>X = Yes Blank = No</small>	Bolt Holes Stripped? <small>X = Yes Blank = No</small>	Cracked or Broken Lid? <small>X = Yes Blank = No</small>	Cracked or Broken Box? <small>X = Yes Blank = No</small>	Grout Level more than 1ft below TOC? <small>X = Yes Blank = No</small>	Additional Comments <small>(such as missing lid, missing bolts, replacement, or other repairs)</small>
MW-1	X	-	-	-	I	-	-	-	-	-	-	
MW-2	X	-	-	-	I	-	-	-	-	-	-	
MW-3	X	-	-	-	I	X	-	-	-	-	-	
MW-4	X	-	-	-	I	-	-	-	-	-	-	
MW-5	X	-	-	-	I	-	-	-	-	-	-	
MW-6	X	-	-	-	I	-	-	-	-	-	-	

DRUM INVENTORY

Drums on site? Yes No (circle)
 Type and # Steel: _____ Plastic: _____

Note whether drums are full or empty, solids or liquids:

Drum label info (description, date, contact info):

GENERAL SITE CONDITIONS

Make notes on housekeeping conditions (such as trash around remediation system enclosure/compound, bent or missing bollards, signs missing from compound fences, graffiti on compound, etc.)

NO. 672321

NON-HAZARDOUS WASTE DATA FORM

SITE:

EPA I.D. NO.

NOT REQUIRED

NAME BP WEST COAST PRODUCTS LLC ARCO # 374

ADDRESS P.O. BOX 80249
RANCHO SANTA MARGARITA

CITY, STATE, ZIP CA 92688

PHONE NO. ()

CONTAINERS: No. _____ VOLUME 2.9 GAL WEIGHT _____

TYPE: TANK TRUCK DUMP TRUCK DRUMS CARTONS OTHER _____

WASTE DESCRIPTION: NON-HAZARDOUS WATER GENERATING PROCESS: WELL PURGING/DECON WATER

1. WATER 99-100% 5. _____

2. TPH <1% 6. _____

3. _____ 7. BEST#

4. _____ 8. _____

PROPERTIES: 7-10 SOLID LIQUID SLUDGE SLURRY OTHER _____

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Larry Moothart BEST for BP

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

Transporter #1 NAME STRATUS ENVIRONMENTAL

Transporter #2 _____

EPA I.D. NO.

ADDRESS 3330 CAMERON PARK DR

SERVICE ORDER NO. _____

CITY, STATE, ZIP CAMERON PARK, CA 93682

PICK UP DATE

PHONE NO. 530-676-2031

ROBERTO HEMMICK

8/21/08

TRUCK, UNIT, I.D. NO. _____

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

NAME INSTRAT, INC

EPA I.D. NO.

DISPOSAL METHOD

ADDRESS 1105 AIRPORT RD #C

LANDFILL OTHER _____

CITY, STATE, ZIP RIO VISTA, CA 94571

PHONE NO. 530-753-1829

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
CO		RT/CD	HWDF	NONE

DISCREPANCY

TO BE COMPLETED BY GENERATOR

TRANSPORTER

TSD FACILITY



Chain of Custody Record

Project Name: BP 374
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 374
 State or Lead Regulatory Agency: _____
 Requested Due Date (mm/dd/yy): _____

On-site Time: <u>6:00</u>	Temp: <u>58</u>
Off-site Time: <u>8:30</u>	Temp: <u>60</u>
Sky Conditions: <u>clear</u>	
Meteorological Events: <u>N/A</u>	
Wind Speed: <u>0</u>	Direction: <u>NA</u>

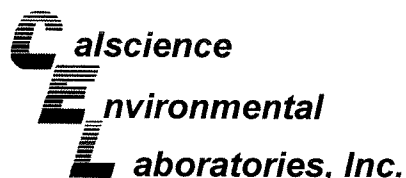
Lab Name: <u>Calscience</u>	BP/AR Facility No.: <u>374</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>7440 Lincoln Way</u> <u>Garden Grove, CA 92841</u>	BP/AR Facility Address: <u>6407 Telegraph Ave., Oakland</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u> <u>Cameron Park, CA 95682</u>
Lab PM: <u>Linda Scharpenberg</u>	Site Lat/Long: _____	Consultant/Contractor Project No.: <u>E374-04</u>
Tele/Fax: <u>714-895-5494</u> <u>714-895-7501(fax)</u>	California Global ID #: <u>T0600100106</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Enfos Project No.: <u>G0C21-0021</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u> <u>San Ramon, CA</u>	Provision or RCOP (circle one) <u>Provision</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
Tele/Fax: <u>925-275-3506</u>	Phase/WBS: <u>04-Monitoring</u>	E-mail EDD To: <u>bcarroll@stratusinc.net</u>
	Sub Phase/Task: <u>03-Analytical</u>	Invoice to: <u>Atlantic Richfield Co</u>
	Cost Element: <u>01-Contractor labor</u>	

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA									
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	BTEX/Oxy* by 8260	1,2 DCA	Ethanol	EDB	GR0 by 8015m										
1	MW-1	8:16	8/21/09	X				6			X			X	X	X	X											
2	MW-2	7:59		X				6			X			X	X	X	X											
3	MW-3	7:26		X				6			X			X	X	X	X											
4	MW-4	7:43		X				6			X			X	X	X	X											
5	MW-5	6:56		X				6			X			X	X	X	X											
6	MW-6	7:11		X				6			X			X	X	X	X											
7	TB 374 8/21/09 - 6:00	6:00	8/21/09	X				2			X	X	X	X	X	X	X										HOLD	
8																												
9																												
10																												

Sampler's Name: <u>ROBERTO HEIMLICH</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: <u>DOUGLASS ENV.</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Please cc results to: rmillar@broadbentinc.com

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
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September 05, 2008

Jay Johnson
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Subject: **Calscience Work Order No.: 08-08-2123**
Client Reference: BP 374

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/23/2008 and analyzed in accordance with the attached chain-of-custody.

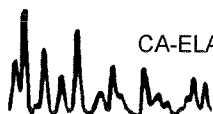
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows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

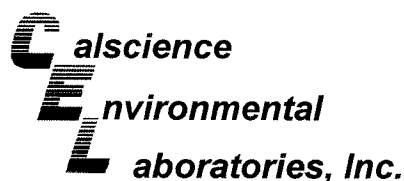
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Linda Scharpenberg". The signature is written in a cursive style with a horizontal line underneath the name.

Calscience Environmental
Laboratories, Inc.
Linda Scharpenberg
Project Manager





Analytical Report



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/23/08
Work Order No: 08-08-2123
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 374

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	08-08-2123-1-E	08/21/08 08:16	Aqueous	GC 4	08/25/08	08/26/08 01:25	080825B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	64	38-134			

MW-2	08-08-2123-2-E	08/21/08 07:59	Aqueous	GC 4	08/25/08	08/26/08 01:58	080825B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	56	38-134			

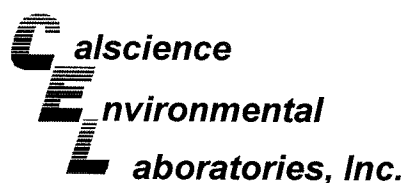
MW-3	08-08-2123-3-E	08/21/08 07:26	Aqueous	GC 4	08/25/08	08/26/08 02:31	080825B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	62	38-134			

MW-4	08-08-2123-4-E	08/21/08 07:43	Aqueous	GC 4	08/25/08	08/26/08 03:04	080825B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	3700	250	5		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	59	38-134			

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



Analytical Report



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/23/08
Work Order No: 08-08-2123
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 374

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	08-08-2123-5-E	08/21/08 06:56	Aqueous	GC 4	08/25/08	08/26/08 03:37	080825B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	60	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	08-08-2123-6-E	08/21/08 07:11	Aqueous	GC 4	08/25/08	08/26/08 04:10	080825B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	56	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-695-243	N/A	Aqueous	GC 4	08/25/08	08/25/08 13:49	080825B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	52	38-134			

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

Analytical Report



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/23/08
Work Order No: 08-08-2123
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: BP 374

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	08-08-2123-1-B	08/21/08 08:16	Aqueous	GC/MS BB	09/02/08	09/03/08 05:13	080902L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.5	5		Methyl-t-Butyl Ether (MTBE)	170	2.5	5	
1,2-Dibromoethane	ND	2.5	5		Tert-Butyl Alcohol (TBA)	ND	50	5	
1,2-Dichloroethane	ND	2.5	5		Diisopropyl Ether (DIPE)	ND	2.5	5	
Ethylbenzene	ND	2.5	5		Ethyl-t-Butyl Ether (ETBE)	ND	2.5	5	
Toluene	ND	2.5	5		Tert-Amyl-Methyl Ether (TAME)	ND	2.5	5	
Xylenes (total)	ND	2.5	5		Ethanol	ND	1500	5	
Surrogates:	REC (%)	Control		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	95	73-157			Dibromofluoromethane	107	82-142		
Toluene-d8	102	82-112			1,4-Bromofluorobenzene	93	75-105		

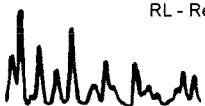
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	08-08-2123-2-B	08/21/08 07:59	Aqueous	GC/MS BB	09/02/08	09/03/08 05:47	080902L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	2.6	0.50	1		Methyl-t-Butyl Ether (MTBE)	4.9	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	93	73-157			Dibromofluoromethane	106	82-142		
Toluene-d8	107	82-112			1,4-Bromofluorobenzene	92	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	08-08-2123-3-C	08/21/08 07:26	Aqueous	GC/MS BB	09/02/08	09/03/08 06:20	080902L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	3.1	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	95	73-157			Dibromofluoromethane	109	82-142		
Toluene-d8	102	82-112			1,4-Bromofluorobenzene	91	75-105		

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



Analytical Report



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/23/08
Work Order No: 08-08-2123
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: BP 374

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	08-08-2123-4-B	08/21/08 07:43	Aqueous	GC/MS BB	09/02/08	09/03/08 06:54	080902L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	1100	20	40		Methyl-t-Butyl Ether (MTBE)	53	20	40	
1,2-Dibromoethane	ND	20	40		Tert-Butyl Alcohol (TBA)	ND	400	40	
1,2-Dichloroethane	ND	20	40		Diisopropyl Ether (DIPE)	ND	20	40	
Ethylbenzene	85	20	40		Ethyl-t-Butyl Ether (ETBE)	ND	20	40	
Toluene	26	20	40		Tert-Amyl-Methyl Ether (TAME)	ND	20	40	
Xylenes (total)	130	20	40		Ethanol	ND	12000	40	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	91	73-157			Dibromofluoromethane	104	82-142		
Toluene-d8	105	82-112			1,4-Bromofluorobenzene	95	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	08-08-2123-5-B	08/21/08 06:56	Aqueous	GC/MS BB	09/02/08	09/03/08 07:27	080902L02

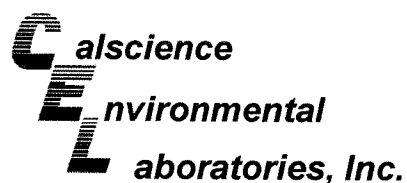
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	92	73-157			Dibromofluoromethane	105	82-142		
Toluene-d8	102	82-112			1,4-Bromofluorobenzene	93	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	08-08-2123-6-C	08/21/08 07:11	Aqueous	GC/MS BB	09/02/08	09/03/08 08:01	080902L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	1.9	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	96	73-157			Dibromofluoromethane	109	82-142		
Toluene-d8	105	82-112			1,4-Bromofluorobenzene	87	75-105		

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





Analytical Report



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/23/08
Work Order No: 08-08-2123
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

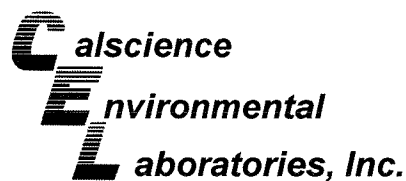
Project: BP 374

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-422	N/A	Aqueous	GC/MS BB	09/02/08	09/03/08 01:52	080902L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	88	73-157			Dibromofluoromethane	99	82-142		
Toluene-d8	103	82-112			1,4-Bromofluorobenzene	95	75-105		

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



Quality Control - Spike/Spike Duplicate



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

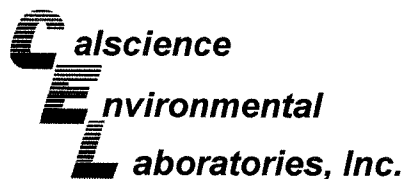
Date Received: 08/23/08
Work Order No: 08-08-2123
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project BP 374

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-08-1528-7	Aqueous	GC 4	08/25/08	08/25/08	080825S01

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	87	87	38-134	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

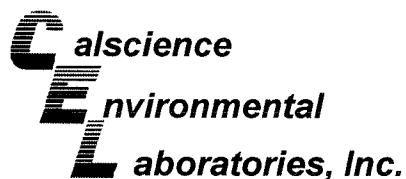
Date Received: 08/23/08
Work Order No: 08-08-2123
Preparation: EPA 5030B
Method: EPA 8260B

Project BP 374

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-08-2124-4	Aqueous	GC/MS BB	09/02/08	09/03/08	080902502

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	112	112	86-122	1	0-8	
Carbon Tetrachloride	102	104	78-138	2	0-9	
Chlorobenzene	107	111	90-120	4	0-9	
1,2-Dibromoethane	101	109	70-130	7	0-30	
1,2-Dichlorobenzene	109	110	89-119	1	0-10	
1,1-Dichloroethene	99	106	52-142	7	0-23	
Ethylbenzene	96	102	70-130	6	0-30	
Toluene	110	116	85-127	5	0-12	
Trichloroethene	104	105	78-126	1	0-10	
Vinyl Chloride	125	133	56-140	6	0-21	
Methyl-t-Butyl Ether (MTBE)	101	104	64-136	3	0-28	
Tert-Butyl Alcohol (TBA)	118	115	27-183	2	0-60	
Diisopropyl Ether (DIPE)	112	116	78-126	3	0-16	
Ethyl-t-Butyl Ether (ETBE)	101	96	67-133	5	0-21	
Tert-Amyl-Methyl Ether (TAME)	97	98	63-141	1	0-21	
Ethanol	116	100	11-167	15	0-64	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Stratus Environmental, inc.
 3330 Cameron Park Drive, Suite 550
 Cameron Park, CA 95682-8861

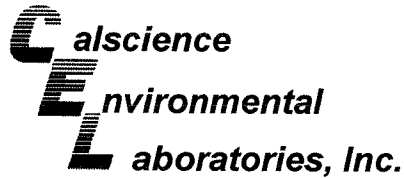
Date Received: N/A
 Work Order No: 08-08-2123
 Preparation: EPA 5030B
 Method: EPA 8015B (M)

Project: BP 374

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-243	Aqueous	GC 4	08/25/08	08/25/08	080825B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	79	79	78-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: N/A
Work Order No: 08-08-2123
Preparation: EPA 5030B
Method: EPA 8260B

Project: BP 374

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-703-422	Aqueous	GC/MS BB	09/02/08	09/03/08	080902L02		
<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>ME CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	109	107	87-117	82-122	2	0-7	
Carbon Tetrachloride	99	100	78-132	69-141	2	0-8	
Chlorobenzene	106	107	88-118	83-123	1	0-8	
1,2-Dibromoethane	102	97	80-120	73-127	5	0-20	
1,2-Dichlorobenzene	105	108	88-118	83-123	3	0-8	
1,1-Dichloroethene	102	105	71-131	61-141	2	0-14	
Ethylbenzene	101	101	80-120	73-127	0	0-20	
Toluene	112	114	85-127	78-134	2	0-7	
Trichloroethene	104	108	85-121	79-127	4	0-11	
Vinyl Chloride	124	126	64-136	52-148	2	0-10	
Methyl-t-Butyl Ether (MTBE)	95	92	67-133	56-144	4	0-16	
Tert-Butyl Alcohol (TBA)	100	106	34-154	14-174	6	0-19	
Diisopropyl Ether (DIPE)	104	106	80-122	73-129	1	0-8	
Ethyl-t-Butyl Ether (ETBE)	96	96	73-127	64-136	0	0-11	
Tert-Amyl-Methyl Ether (TAME)	94	95	69-135	58-146	1	0-12	
Ethanol	108	115	34-124	19-139	7	0-44	

Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 08-08-2123

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



Work Order Number: 08-08-2123

<u>Qualifier</u>	<u>Definition</u>
LR	LCS recovery below method control limits.
MB	Analyte present in the method blank.
MG	Analyte is a suspected lab contaminate.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.





bp
A BP affiliated company

Chain of Custody Record

Project Name: BP 374
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 374
 State or Lead Regulatory Agency: _____
 Requested Due Date (mm/dd/yy): _____

2123

On-site Time:	6:00	Temp:	58
Off-site Time:	8:30	Temp:	60
Sky Conditions:	clear		
Meteorological Events:	NA		
Wind Speed:	0	Direction:	NA

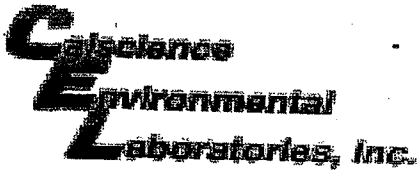
Lab Name: Calscience	BP/AR Facility No.: 374	Consultant/Contractor: Stratus Environmental, Inc.
Address: 7440 Lincoln Way Garden Grove, CA 92841	BP/AR Facility Address: 6407 Telegraph Ave., Oakland	Address: 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682
Lab PM: Linda Scharpenberg	California Global ID #: T0600100106	Consultant/Contractor Project No.: E374-04
Tele/Fax: 714-895-5494 714-895-7501(fax)	Enfos Project No.: G0C21-0021	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 San Ramon, CA	Phase/WBS: 04-Monitoring	Report Type & QC Level: Level 1 with EDF
Tele/Fax: 925-275-3506	Sub Phase/Task: 03-Analytical	E-mail EDD To: bcarroll@stratusinc.net
	Cost Element: 01-Contractor labor	Invoice to: Atlantic Richfield Co.

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative				Requested Analysis					Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA	
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	BTEX/Oxy* by 8260	1,2 DCA	Ethanol	EDB		GRO by 8015m
1	MW-1	8:16	8/1/08	X			1	6			X			X	X	X	X		
2	MW-2	7:59		X			2	6			X			X	X	X	X		
3	MW-3	7:26		X			3	6			X			X	X	X	X		
4	MW-4	7:43		X			4	6			X			X	X	X	X		
5	MW-5	6:56		X			5	6			X			X	X	X	X		
6	MW-6	7:11		X			6	6			X			X	X	X	X		
7	TB 374 8/21/08 - 6:00	6:00	8/21/08	X			7	2			X			X	X	X	X		HOLD
8																			
9																			
10																			

Sampler's Name: <u>ROBERTO HEIMLICH</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: <u>DOUGLAS ENV.</u>						
Shipment Date:						
Shipment Method: <u>GSD</u>						
Shipment Tracking No: <u>105867030</u>						

Special Instructions: Please cc results to: rmiller@broadbentinc.com

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



WORK ORDER #: 08 - 08 - 2123

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: STRATOS

DATE: 08-23-08

TEMPERATURE - SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- Chilled, cooler with temperature blank provided.
- Chilled, cooler without temperature blank.
- Chilled and placed in cooler with wet ice.
- Ambient and placed in cooler with wet ice.
- Ambient temperature (For Air & Filter Only).
- °C Temperature blank.

LABORATORY (Other than CalScience Courier):

- 05.4 °C Temperature blank.
- °C IR Thermometer.
- Ambient temperature (For Air & Filter Only).

Initial: KW

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Present:

Initial: KW

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOA vial(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: KW

COMMENTS:

ATTACHMENT

FIELD PROCEDURES FOR GROUNDWATER SAMPLING

The sampling procedures for groundwater monitoring events are contained in this appendix.

Equipment Calibration

Standard groundwater sampling equipment – pH/Conductivity/Temperature meter, and dissolved oxygen (DO) meters are calibrated prior to all field work. All calibration is conducted in accordance with equipment manufacturer's recommended procedure and buffer solutions. MSDS for all buffer solutions are maintained in Stratus vehicles. Calibration is completed everyday prior to field work and also once a week. The pH probe is calibrated for a pH of 7.0 daily and for 4.0, 7.0 and 10.0 weekly. The conductivity probe is calibrated for 1413 μ s daily and 1413 μ s and 447 μ s weekly. The temperature probe is calibrated weekly with a NIST-traceable thermometer. The DO probe is calibrated for 100% oxygen daily and 0% and 100% oxygen weekly. All calibration logs are maintained in the Stratus office.

Groundwater and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

Prior to measuring the depth to liquid in the well, the well caps are removed and the liquid level allowed to stabilize. A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the groundwater depth in monitoring wells that do not contain LPH. Depth to groundwater or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typically a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

Subjective Analysis of Groundwater

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

Monitoring Well Sampling

In many cases, determining whether to purge or not to purge wells prior to sample collection is made in the field and is often based on depth to water relative to the screen interval of the well. Site-specific field data sheets present details associated with the purge method and equipment used.

Monitoring wells, when purged, use a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water has been removed. Field measuring equipment is calibrated and maintained according to the manufacturer's instructions. If three well volumes cannot be removed in one half hour's time the well is allowed to recharge to 80% of original level. After recharging, a groundwater sample is then collected from each of the wells using disposable bailers.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air accumulation in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Groundwater Sample Labeling and Preservation

Samples are collected in appropriate containers supplied by the laboratory. All required chemical preservation is added to the bottles prior to delivery to Stratus. Sample label information includes a unique sample identification number, job identification number, date, and time. After labeling, all groundwater samples are placed in a Ziploc® type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip and temperature blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and

contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

Equipment Cleaning

All reusable sampling equipments are cleaned using phosphate-free detergents and rinsed with de-ionized water.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATIONS

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!

<u>Submittal Type:</u>	GEO_WELL
<u>Submittal Title:</u>	3Q08 GEO_WELL 374
<u>Facility Global ID:</u>	T0600100106
<u>Facility Name:</u>	ARCO #0374
<u>File Name:</u>	GEO_WELL.zip
<u>Organization Name:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	9/12/2008 3:38:24 PM
<u>Confirmation Number:</u>	1224590480

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!

<u>Submittal Type:</u>	GWM_R
<u>Submittal Title:</u>	3Q08 GW Monitoring
<u>Facility Global ID:</u>	T0600100106
<u>Facility Name:</u>	ARCO #0374
<u>File Name:</u>	08082123.zip
<u>Organization Name:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	9/12/2008 3:39:44 PM
<u>Confirmation Number:</u>	7339724481

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)