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Atlantic Richfield Company (a BP affiliated company)

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

January 30, 2007

Re: Fourth Quarter, 2006 Ground-Water Monitoring Report Atlantic Richfield Company Station #4977 2770 Castro Valley Boulevard Castro Valley, California ACEH Case No. RO0002436

"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

Fourth Quarter, 2006 Ground-Water Monitoring Report Atlantic Richfield Company Station #4977 2770 Castro Valley Boulevard

770 Castro Valley Boulevar Castro Valley, 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

January 2007

Project No. 06-02-625

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



January 30, 2007

Project No. 06-02-625

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

Attn.: Mr. Paul Supple

Fourth Quarter, 2006 Ground-Water Monitoring Report, Atlantic Richfield Company (a Re:

BP affiliated company) Station #4977, 2770 Castro Valley Boulevard, Castro

Valley, CA. ACEH Case No. RO0002436.

Dear Mr. Supple:

Provided herein is the Fourth Quarter, 2006 Ground-Water Monitoring Report for Atlantic Richfield Company Station #4977 (herein referred to as Station #4977) located at 2770 Castro Valley Boulevard, Castro Valley, CA (Property). This report presents a summary of Fourth Quarter, 2006 ground-water monitoring results.

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.

Matthew Herrick, P.G.

Project Hydrogeologist

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

Shaht 71. My

Principal Hydrogeologist

Enclosures

cc: Mr. Steven Plunkett, Alameda County Environmental Health (submitted via ACEH ftp

ROBERT H.

MILLER

No. 4893

site)

ARIZONA CALIFORNIA **NEVADA TEXAS**

STATION #4977 QUARTERLY GROUND-WATER MONITORING REPORT

Facility: #4977 Address: 2770 Castro Valley Boulevard, Castro Valley, CA

Station #4977 Environmental Business

Manager: Mr. Paul Supple

Consulting Co./Contact Persons: Broadbent & Associates, Inc. (BAI)/Rob Miller & Matt Herrick

Consultant Project No.: 06-02-625

Facility Permits/Permitting Agency.: NA

WORK PERFORMED THIS QUARTER (Fourth Quarter, 2006):

- 1. Submitted Third Quarter, 2006 Ground-Water Monitoring Report. Work performed by BAI.
- 2. Conducted ground-water monitoring/sampling for Fourth Quarter, 2006. Work performed by Stratus Environmental, Inc.

WORK PROPOSED FOR NEXT QUARTER (First Quarter, 2007):

- 1. Submit Fourth Quarter, 2006 Ground-Water Monitoring Report (contained herein).
- 2. Conduct quarterly ground-water monitoring/sampling for First Quarter, 2007.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	Ground-water monitoring/sampling
Frequency of ground-water sampling:	Wells MW-1 through MW-3: Quarterly
Frequency of ground-water monitoring:	Quarterly
Is free product (FP) present on-site:	No
Current remediation techniques:	None
Depth to ground water (below TOC):	6.02 (MW-2) to 8.00 (MW-1) feet
General ground-water flow direction:	South
Approximate hydraulic gradient:	0.024 Feet per foot

DISCUSSION:

Gasoline range organics (GRO) were detected in MW-2 and MW-3 at 21,000 micrograms per liter (µg/L) and 450 µg/L, respectively. Benzene was detected in MW-2 and MW-3 at 500 µg/L and 4.3 µg/L, respectively. Ethylbenzenene was detected in MW-2 and MW-3 at 1,400 µg/L and 19 µg/L, respectively. Xylenes were detected in MW-2 and MW-3 at 1,700 µg/L and 1.4 µg/L, respectively. Methyl tert-butyl ether (MTBE) was detected in MW-1, MW-2, and MW-3 at concentrations ranging from 4.3 µg/L (MW-1) to 70 µg/L (MW-2). Ground-water samples were inadvertently not analyzed for 1,2-Dibromoethane (EDB) during the Fourth Quarter, 2006. We have directed Stratus Environmental, Inc. to include EDB in all future sample analysis for the site. No other analytes were detected in ground-water samples collected during Fourth Quarter, 2006.

Drawing 1 depicts the ground-water elevation contour and an analytical summary map for the Fourth Quarter, 2006. Table 1 includes a summary of ground-water monitoring data including relative water elevations and laboratory analyses. Table 2 provides a summary of fuel additives analytical data. Table 3 presents historical groundwater flow directions and gradients.

CLOSURE:

The findings presented in this report are based upon: observations of Stratus Environmental, Inc. and/or their subcontractor(s) field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by TestAmerica (Morgan Hill, CA). 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:

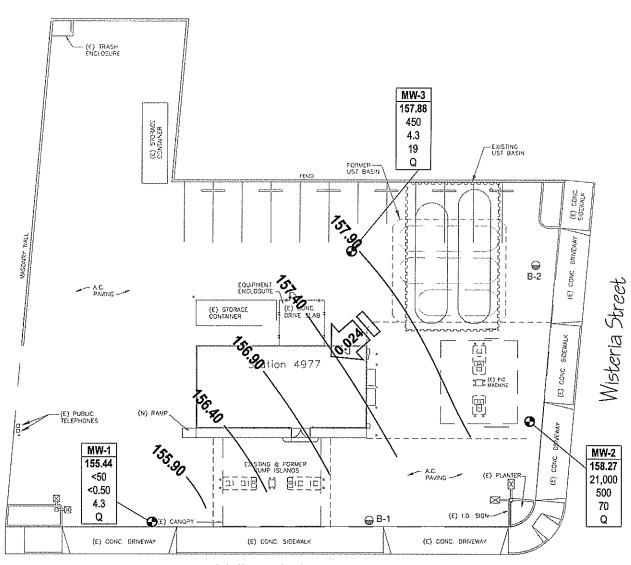
Drawing 1.

J	Valley, CA
Table 1.	Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #4977, Castro Valley, CA
Table 2.	Summary of Fuel Additives Analytical Data, Station #4977, Castro Valley, CA
Table 3.	Historical Ground-Water Flow Direction and Gradient, Station #4977, Castro Valley, CA

Ground-Water Elevation Contour and Analytical Summary Map, Station #4977, Castro

Appendix A. Stratus Environmental, Inc. Ground-Water Sampling Data Package (Includes Bill of Lading, Field Data Sheets, and Laboratory Report and Chain of Custody Documentation)

Appendix B. GeoTracker Upload Confirmation



Castro Valley Blvd.

LEGEND

♦ MONITORING WELL♦ SOIL BORING

Well - WELL DESIGNATION
ELEV - GROUND-WATER EL

GROUND-WATER ELEVATION (FT ABOVE MSL)
CONCENTRATION OF GRO, BENZENE

AND MTBE IN GROUND WATER (µg/L) SAMPLING FREQUENCY

NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS

SAMPLED QUARTERLY

-156.90 GROUND-WATER ELEVATION CONTOUR (FT ABOVE MSL)

0.024

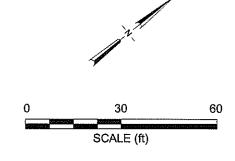
ΒZ

MTBE

Q

GROUND-WATER FLOW DIRECTION AND GRADIENT (FT/FT)

NOTE: SITE MAP ADAPTED FROM DELTA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



BROADBENT & ASSOCIATES, INC.

ENGINEERING, WATER RESOURCES & ENVIRONMENTAL 1324 Mangrove Ave. Suite 212, Chico, California 95926 Project No.: 06-02-625 Date: 1/19/06 Station #4977 2770 Castro Valley Blvd. Castro Valley, California Ground-Water Elevation Contour and Analytical Summary Map December 19, 2006 Drawing

1

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

·				Top of	Bottom of		Water Level			Concentra	tions in (a.	а Л)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/		Concentra	Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-1															
4/19/2002			161.11	5.0	15.0	11.21	149.90	660	12	1.3	4.3	0.8	38		
9/27/2002			161.11	5.0	15.0	9.29	151.82	130	7.7	0.87	5.4	0.79	39	1.7	6.9
12/16/2002		a	161,11	5.0	15.0	8.55	152.56	77	1.8	<0.50	0.69	<1.0	42	1,6	6.9
3/11/2003			161.11	5.0	15.0	8.07	153.04	140	9.8	<0.50	5.6	<0.50	20	1.4	7.4
6/17/2003			161.11	5.0	15.0	8.31	152.80	510	60	1.4	81	<1.0	23	2.2	7
9/18/2003		b	161.11	5.0	15.0	9.45	151.66	72	2.4	1.4	1.6	1.5	39	2.7	7
12/11/2003	P		161.11	5.0	15.0	8.80	152.31	79	1.5	<0.50	1.5	4.4	48	2.1	7.0
03/11/2004	P		163.44	5.0	15.0	7.61	155.83	<50	1.3	<0.50	0.77	1.3	17	1.4	6.8
06/02/2004	P		163,44	5.0	15.0	8.95	154.49	53	1.4	<0.50	0.93	<0.50	39	2.3	7.1
09/22/2004	P	15(7) (10 (27) 7) (14(10) (27) 70 (10) 24 (20) (27) 4 (20) (27) 4 (20) (27) 4 (20) (27) 4 (20) (27) 4 (20) (27)	163.44	5.0	15.0	9.42	154.02	70	<0.50	<0.50	<0.50	<0.50	48	1.7	6.8
12/15/2004	P		163.44	5.0	15.0	7.88	155.56	63	<0.50	<0.50	<0.50	<0.50	45	1.8	6.9
03/07/2005	P		163.44	5.0	15.0	7.02	156.42	<50	<0.50	<0.50	<0.50	<0.50	4.0	2.4	6.8
06/27/2005	P		163.44	5.0	15.0	7.53	155.91	52	2.0	<0.50	1.9	0.78	8.1	2.8	7.1
09/16/2005	P		163.44	5.0	15.0	9.20	154.24	<50	<0.50	<0.50	<0.50	0.76	14	1.82	6.9
12/27/2005	P		163.44	5.0	15.0	7.60	155.84	<50	1.3	<0.50	1.5	<0.50	9.4	2.02	7.87
03/16/2006	P		163.44	5.0	15.0	6.97	156.47	71	3.0	<0.50	3.5	<0.50	3.4	1.6	7.1
6/26/2006	P		163.44	5.0	15.0	8.58	154.86	71	0.69	<0.50	1.1	3.5	3.2	2.2	6.9
9/29/2006	P		163.44	5.0	15.0	8.85	154.59	<50	<0.50	<0.50	<0.50	<0.50	5.2	2.35	6.7
12/19/2006	P		163.44	5.0	15.0	8.00	155.44	<50	<0.50	<0.50	<0.50	<0.50	4.3	4.80	7.21
MW-2															İ
4/19/2002			161.87	5.0	15.0	6.59	155.28	28,000	970	120	860	6,900	760		j
9/27/2002	- 1		161.87	5.0	15.0	7.18	154.69	17,000	1,400	<50	1,200	3,700	1,400	1.5	6.8
12/16/2002		a	161.87	5.0	15.0	7.31	154.56	17,000	1,000	<50	980	3,300	980	1.9	6.8
3/11/2003			161.87	5.0	15.0	6.02	155.85	24,000	1,600	70	1,300	4,300	920	1.7	7.4
6/17/2003		- 11 - 12 - 13 - 13 - 13 - 13 - 13 - 13	161.87	5.0	15.0	6.31	155.56	28,000	1,300	55	1,300	4,500	610	1.4	6.9
9/18/2003	-		161,87	5.0	15.0	7.61	154,26	19,000	960	63	1,100	3,100	580	2.7	6.8
12/11/2003	P		161.87	5.0	15.0	6.50	155.37	29,000	710	53	1,300	3,800	490	2.0	7.0
03/11/2004	P	The control of the Control	164.29	5.0	15.0	6.02	158.27	19,000	830	49	1,500	4,000	410	0.8	6.5
06/02/2004	P	NAMES OF THE PROPERTY OF THE P	164.29	5.0	15.0	7.14	157.15	25,000	680	<50	1,300	3,900	240	4.3	7.1
09/22/2004	-		164.29	5.0	15.0	7.63	156.66	15,000	980	<25	980	940	390	-	6.7

1

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

				Top of	Bottom of		Water Level			Concentra	tìons in (µ	g/L)			
Well and			TOC	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	l
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-2 Cont.															
12/15/2004	P	C	164.29	5.0	15.0	6.48	157.81	22,000	610	26	1,300	3,200	290	0.3	6.9
03/07/2005	P		164.29	5.0	15.0	6.08	158.21	25,000	570	33	1,400	3,900	120	2.3	6.8
06/27/2005	P		164.29	5.0	15.0	6.90	157.39	24,000	630	32	1,200	2,900	86	2.5	7.2
09/16/2005	P		164.29	5.0	15.0	7.66	156.63	25,000	550	<25	1,400	3,000	82	1.41	7.0
12/27/2005	P	6 march (20mg) 52 march	164.29	5.0	15.0	5.60	158.69	33,000	540	<25	1,300	2,700	100	2.26	7.19
03/16/2006	P	C	164.29	5.0	15.0	7.25	157.04	29,000	710	<50	1,400	2,600	78	1.4	7.1
6/26/2006	P	c c	164.29	5.0	15.0	6.60	157.69	20,000	630	<25	1,200	1,100	110	0.64	6.8
9/29/2006	P	ega (gradistina) kristing an aktionali videolokka daliba kristakon begaziya (k	164.29	5.0	15.0	6.85	157.44	24,000	530	<25	1,300	1,800	86	1.36	6.7
12/19/2006	P		164.29	5.0	15.0	6.02	158.27	21,000	500	<25	1.400	1,700	70	1.11	7.42
MW-3															
4/19/2002			162.14	5.0	15.0	6.94	155.20	1,200	29	1.1	43	62	1,700		l
9/27/2002			162.14	5.0	15.0	8.26	153.88	740	7.8	<2.5	6.8	4.4	1,100	1	6.7
12/16/2002		a	162.14	5.0	15.0	6.76	155.38	1,200	13	<10	170	88	910	2.3	6.8
3/11/2003		-	162.14	5.0	15.0	6.92	155.22	<2,500	<25	<25	<25	<25	470	1.7	7.5
6/17/2003			162.14	5.0	15.0	7.44	154.70	<1,000	<10	<10	14	<10	530	1.9	7
9/18/2003			162.14	5.0	15.0	8.43	153.71	470	4.8	<2.5	10	9.2	300	2.9	6.8
12/11/2003	P		162.14	5.0	15.0	6.72	155.42	<500	<5.0	<5.0	7.0	13	180	1.9	6.9
03/11/2004	P		164.53	5.0	15.0	6.09	158.44	360	1,9	<1.0	5.6	5.0	110	2.6	6.8
06/02/2004	P		164.53	5.0	15.0	7.50	157.03	380	2.8	<0.50	8.0	2.1	43	3.6	7.3
09/22/2004	P		164.53	5.0	15.0	8.00	156.53	270	<0.50	<0.50	0.54	<0.50	50	1.8	6.9
12/15/2004	P		164.53	5.0	15.0	6.43	158.10	390	3.5	<0.50	20	3.7	49	1.1	6.9
03/07/2005	P		164.53	5.0	15.0	6.12	158.41	1.900	13	<1.0	93	29	70	2.3	6.8
06/27/2005	P		164.53	5.0	15.0	7.08	157.45	830	4.0	<0.50	13	2.8	33	3.3	7.3
09/16/2005	P		164.53	5.0	15.0	7.28	157.25	320	2.1	<0.50	5.4	0.60	21	2.11	7.0
12/27/2005	P		164.53	5.0	15.0	6.47	158.06	770	6.0	<0.50	33	2.7	36	2.96	7.42
03/16/2006	P		164.53	5.0	15.0	6.10	158.43	1,600	11	<0.50	59	6.4	45	1.4	7.1
6/26/2006	P		164.53	5.0	15.0	6.92	157.61	400	<0.50	<0.50	1.6	2.1	26	2.41	7.0
9/29/2006	P		164.53	5.0	15.0	7.38	157.15	220	0.86	<0.50	2.2	0.58	14	1.95	7.0
12/19/2006	P		164.53	5.0	15.0	6.65	157.88	450	4.3	<0.50	19	1.4	19	3,68	7.30

SYMBOLS AND ABBREVIATIONS:

< = Not detected at or above specified laboratory reporting limits

-- = Not measured, sampled, analyzed, applicable

ft bgs = Feet below ground surface

DO = Dissolved oxygen

DTW = Depth to water in ft bgs

GRO = Gasoline range organics

GWE = Groundwater elevation in ft MSL

mg/L = Milligrams per liter

ft MSL = Feet above mean sea level

MTBE = Methyl tert-butyl ether analyzed by EPA Method 8021B unless otherwise noted (before 12/16/02)

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

TPH-g = Total petroleum hydrocarbons as gasoline (C5-C9)

TOC = Top of casing measured in ft MSL

μg/L = Micrograms per liter

FOOTNOTES:

a = TPH, benzene, toluene, ethylbenzene, total xylenes, and MTBE analyzed by EPA Method 8260B beginning on 4th quarter sampling event (12/16/02).

b = This sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. The results may still be used for their intended purpose.

c = Sheen in well.

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

Wells were re-surveyed on 3/23/2004.

Values for DO and pH were field measurements.

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

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 #4977, 2770 Castro Valley Blvd., Castro Valley, CA

	Station #4977, 2770 Castro Valley Blvd., Castro Valley							CA	
Well and			·		ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-1									
12/16/2002	<50	<5.0	42	<0.50	<0.50	<0.50	<0.50	<0.50	
3/11/2003	<100	<20	20	<0.50	<0.50	<0.50	<0.50	<0.50	
6/17/2003	<200	<40	23	<1.0	<1.0	<1.0	<1.0	<1.0	
9/18/2003	<100	<20	39	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/11/2003	<100	<20	48	<0.50	<0.50	<0.50	<0.50	<0.50	
03/11/2004	<100	<20	17	<0.50	<0.50	<0.50	<0.50	<0.50	
06/02/2004	<100	<20	39	<0.50	<0.50	<0.50	<0.50	<0.50	
09/22/2004	<100	<20	48	<0.50	<0.50	<0.50	<0.50	<0.50	
12/15/2004	<100	<20	45	<0.50	<0.50	<0.50	<0.50	<0.50	a
03/07/2005	<100	<20	4.0	<0.50	<0.50	<0.50	<0.50	<0.50	
06/27/2005	<100	<20	8.1	<0.50	<0.50	<0.50	<0.50	<0.50	A sa season on transcription of consideration in the following contracting on programming and
09/16/2005	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
12/27/2005	<100	<20	9.4	<0.50	<0.50	<0.50	<0.50	<0.50	b
03/16/2006	<300	<20	3,4	<0.50	<0.50	<0.50	<0.50	<0.50	Company of the second of the s
6/26/2006	<300	<20	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	
9/29/2006	<300	<20	5.2	<0.50	<0.50	<0.50	<0.50	<0.50	
12/9/2006	<300	<20	4.3	<0.50	<0.50	<0.50	<0.50		b
MW-2									
12/16/2002	<5,000	<500	980	<50	<50	<50	<50	<50	
3/11/2003	<10,000	<2,000	920	<50	<50	<50	<50	<50	
6/17/2003	<10,000	<2,000	610	<50	<50	<50	<50	<50	
9/18/2003	<5,000	<1,000	580	<25	<25	<25	<25	<25	
12/11/2003	<5,000	<1,000	490	<25	<25	<25	<25	<25	
03/11/2004	<2,000	<400	410	<10	<10	<10	<10	<10	
06/02/2004	<10,000	<2,000	240	<50	<50	ర 0	5 0	<50	
09/22/2004	<5,000	<1,000	390	<25	<25	<25	<25	<25	
12/15/2004	<2,000	<400	290	<10	<10	<10	<10	<10	a
03/07/2005	<5,000	<1,000	120	<25	<25	<25	<25	<25	A 10
06/27/2005	<5,000	<1,000	86	<25	<25	<25	<25	<25	
09/16/2005	<5,000	<1,000	82	<25	<25	<25	<25	<25	4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
12/27/2005	<5,000	<1,000	100	<25	<25	<25	<25	<25	b

Table 2. Summary of Fuel Additives Analytical Data Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

Well and	Concentrations in (µg/L)								
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-2 Cont.									
03/16/2006	<30,000	<2,000	78	<50	<50	<50	<50	<50	C
6/26/2006	<15,000	<1,000	110	<25	<25	<25	<25	<25	
9/29/2006	<15,000	<1,000	86	<25	<25	<25	<25	<25	
12/9/2006	<15,000	<1,000	70	<25	<25	<25	<25		b
MW-3									
12/16/2002	<1,000	<100	910	<10	<10	12	<10	<10	
3/11/2003	<5,000	<1,000	470	<25	<25	<25	<25	<25	
6/17/2003	<2,000	<400	530	<10	<10	<10	<10	<10	
9/18/2003	<500	<100	300	<2.5	<2.5	3.2	<2.5	<2.5	
12/11/2003	<1,000	<200	180	<5.0	<5.0	<5.0	<5.0	<5.0	
03/11/2004	<200	570	110	<1.0	<1.0	<1.0	<1.0	<1.0	
06/02/2004	<100	130	43	<0.50	<0.50	0.56	<0.50	<0.50	
09/22/2004	<100	28	50	<0.50	<0.50	0.51	<0.50	<0.50	
12/15/2004	<100	110	49	<0.50	0.52	0.61	<0.50	<0.50	a
03/07/2005	<200	190	70	<1.0	<1.0	<1.0	<1.0	<1.0	
06/27/2005	<100	130	33	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	44	21	<0.50	<0.50	<0.50	<0.50	<0.50	
12/27/2005	<100	150	36	<0.50	<0.50	<0.50	<0.50	<0.50	b
03/16/2006	<300	160	45	<0.50	<0.50	0.84	<0.50	<0.50	С
6/26/2006	<300	53	26	<0.50	<0.50	<0.50	<0.50	<0.50	
9/29/2006	<300	55	14	<0.50	<0.50	<0.50	<0.50	<0.50	
12/9/2006	<300	<20	19	<0.50	<0.50	<0.50	<0.50		b

SYMBOLS AND ABBREVIATIONS:

< = Not detected at or above specified 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 = This sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. The results may still be used for their intended purpose.
- b = Calibration verification for ethanol was within method limits but outside contract limits.
- c = Possible high bias for DIPE, 1,2-DCA, and ethanol due to CCV falling outside acceptance criteria.

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 #4977, 2770 Castro Valley Blvd., Castro Valley, CA

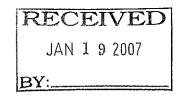
Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
4/19/2002	Southwest	0.038
9/27/2002	Southwest	0.021
12/16/2002	Southeast	0.029
3/11/2003	South	0.024
6/17/2003	South-Southwest	0.022
9/18/2003	South-Southwest	0.022
3/11/2004	South-Southwest	0.024
6/2/2004	South	0.025
9/22/2004	South	0.025
12/15/2004	South	0.020
3/7/2005	South	0.02
6/27/2005	South	0.01
9/16/2005	Southeast	0.03
12/27/2005	South-Southeast	0.02
3/16/2006	Southeast	0.02
6/26/2006	South	0.03
9/29/2006	South	0.025
12/19/2006	South	0.024

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 ENVIRONMENTAL, INC. GROUND-WATER SAMPLING DATA PACKAGE (INCLUDES BILL OF LADING, FIELD DATA SHEETS, AND LABORATORY REPORT AND CHAIN OF CUSTODY DOCUMENTATION)





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

January 11, 2007

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

Re:

Groundwater Sampling Data Package, BP Service Station No. 4977, located at 2770 Castro Valley Road, Castro Valley, California (Quarterly Monitoring performed on

December 19, 2006)

General Information

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

Phone Number: (530) 676-6000

On-Site Supplier Representative: Jerry Gonzales

Date: December 19, 2006

Arrival: 13:10 Departure: 15:25

Weather Conditions: Clear Unusual Field Conditions: None

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 bill of lading, 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 ONG GEODOG Jay R. Johnson No. 5867

Project Manager

Attachments:

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

CC: Mr. Paul Supple, BP/ARCO

BP GEM OIL COMPANY

TYPE A BILL OF LADING

SOURCE RECORD BILL OF LADING FOR NON-**HAZARDOUS PURGEWATER** RECOVERED **FROM** GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS **PURGEWATER** WHICH HAS BEEN RECOVERED FROM GROUNDWATER WELLS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY BELSHIRE **ENVIRONMENTAL** TO **SEAPORT** ENVIRONMENTAL IN REDWOOD CITY, CALIFORNIA.

The contractors performing this work are Stratus Environmental, Inc. [Stratus, 3330 Cameron Park Drive, Suite 550, Cameron Park, CA 95682, (530) 676-6004], and Doulos Environmental, Inc. [Doulos, PO Box 2559, Orangevale, CA 95662, (916) 990-0333]. Stratus is authorized by BP GEM OIL COMPANY to recover, collect, and apportion into loads the nonhazardous well purgewater that is drawn from wells at BP GEM Oil Company facilities and deliver that purgewater to BP GEM Oil Company facility 5786 located in West Sacramento, California. Doulos also performs these services under subcontract to Stratus. Transport routing of the non-hazardous well purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The non-hazardous well purgewater is and remains the property of BP GEM Oil Company.

This Source Record BILL OF LADING was initiated to cover the recovery of non-hazardous well purgewater from wells at the BP GEM Oil Company facility described below:

4977							
Station #							
Castro Valley – 2770 Castro Valley Rd.							
Station Address							
Total Gallons Collected From Gro	oundwater Monitoring Wells:						
Added Equipment S	Any Other Adjustments						
TOTAL GALS. RECOVERED 5/	loaded onto Doulos vehicle #						
Stratus Project #	time date						
	1545 12/19/06						
Signature Jarry G.							
***********	*********						
RECEIVED AT	time date						
BP 5786 Unloaded by Signature May 6	1800 12/19/06						

BP ALAMEDA PORTFOLIO

HYDROLOGIC DATA SHEET

Gauge Date: 12-19.06

Project Name: Castro Valley - 2770 Castro Valley Rd.

Field Technician:

Project Number: 4977

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

WELL OR LOCATION	TIME			3.670 4.071			PURGE &	SHEEN		
LOCATION	LAIVE	TOC	DTP	DTW	REMENT DTB	DIÀ	ELEV	SAMPLE	CONFIRMATION	COMMENTS
Addre	13:30		D11	800 -	/500		ELEV	1115	(w/bailer)	
MV! MV : 3	13 40			50.0	14.58	· (1)		405 405		
Reservices	17:705							7 - 7		
1 week	1,2,700			(0.40)	1485	<i>f</i>		405		
										_
									·	

BP ALAMEDA PORTFOLIO WATER SAMPLE FIELD DATA SHEET PROJECT #: 4977 WELL I.D.: PURGED BY: CLIENT NAME: SAMPLED BY: SAMPLE I.D.: AMAL LOCATION: Castro Valley - 2770 Castro Valley Road QA SAMPLES: DATE PURGED START (2400hr) END (2400hr) DATE SAMPLED SAMPLE TIME (2400hr) SAMPLE TYPE: Groundwater x Surface Water Treatment Effluent CASING DIAMETER: Other Casing Volume: (gallons per foot) (0.17)(0.38)(0.67)(1.02) (1.50)(2.60)75.00 DEPTH TO BOTTOM (feet) = CASING VOLUME (gal) = DEPTH TO WATER (feet) = CALCULATED PURGE (gal) = WATER COLUMN HEIGHT (feet) = 7.0 ACTUAL PURGE (gal) = FIELD MEASUREMENTS DATE TIME VOLUME TEMP. CONDUCTIVITY рH COLOR TURBIDITY (gal) (degrees F) (umhos/cm) (units) (visual) (NTU) 72.4 1160 21.4 SAMPLE INFORMATION SAMPLE DEPTH TO WATER: SAMPLE TURBIDITY: 80% RECHARGE: YES ANALYSES: ODOR: /// SAMPLE VESSEL/PRESERVATIVE: VOC-HCC PURGING EQUIPMENT SAMPLING EQUIPMENT Bladder Pump Bailer (Teflon) Bladder Pump Bailer (Teflon) Centrifugal Pump Bailer (PVC) Centrifugal Pump Bailer (PVC or / disposable) Submersible Pump Bailer (Stainless Steel) Submersible Pump Bailer (Stainless Steel) Peristalic Pump Dedicated Peristalic Pump Dedicated Other: Other: Pump Depth: / 3200 WELL INTEGRITY: REMARKS: SIGNATURE: Page _ of

BP ALAMEDA PORTFOLIO WATER SAMPLE FIELD DATA SHEET WELL I.D.: other PROJECT #: 4977 PURGED BY: CLIENT NAME: SAMPLED BY: SAMPLE I.D.: LOCATION: Castro Valley - 2770 Castro Valley Road QA SAMPLES: DATE PURGED 17-18-06 START (2400hr) / 3,4 9 END (2400hr) DATE SAMPLED 19-19-6 SAMPLE TIME (2400hr) SAMPLE TYPE: Groundwater Surface Water Treatment Effluent CASING DIAMETER: Casing Volume: (gallons per foot) (0.17)(0.38)(1.02) (1.50) (2.60)DEPTH TO BOTTOM (feet) = CASING VOLUME (gal) = DEPTH TO WATER (feet) = CALCULATED PURGE (gal) = WATER COLUMN HEIGHT (feet) = ACTUAL PURGE (gal) = FIELD MEASUREMENTS DATE TIME VOLUME TEMP. CONDUCTIVITY pН COLOR TURBIDITY (2400hr) (gal) (degrees E) (visual) (NTU) SAMPLE INFORMATION SAMPLE DEPTH TO WATER: SAMPLE TURBIDITY: 80% RECHARGE: X YES ANALYSES: SAMPLE VESSEL/PRESERVATIVE: Voa-1766 PURGING EQUIPMENT SAMPLING EQUIPMENT Bladder Pump Bailer (Teflon) Bladder Pump Bailer (Teflon) Centrifugal Pump Bailer (PVC) Centrifugal Pump Bailer (PVC or disposable) Submersible Pump Bailer (Stainless Steel) Submersible Pump Bailer (Stainless Steel) Peristalic Pump Dedicated Peristalic Pump Dedicated Other: Pump Depth: / LOCK#: MESTA WELL INTEGRITY: REMARKS: SIGNATURE: Page __

	BP ALAMEDA POR				
PROJECT #: 4977 CLIENT NAME: LOCATION: Castro Valley - 2770 Castro	PURGED BY: SAMPLE BY: O Valley Road		· · · · · · · · · · · · · · · · · · ·		
DATE PURGED 72-19-06 DATE SAMPLED SAMPLE TYPE: Groundwater x	START (2400hr) / SAMPLE TIME (2400hr) Surface Water	POD END (24	400hr) <u>14.03</u> Other		
CASING DIAMETER: 2" Casing Volume: (gallons per foot) (0.17)	(0.38) 4" (0.67)	5" 6" (1.02) (1.50)	8" (2.60) Other ()		
DEPTH TO BOTTOM (feet) = / /. DEPTH TO WATER (feet) = / /. WATER COLUMN HEIGHT (feet) = / /.	8-S 2-S 2-S	CASING VOLUME (gal) = CALCULATED PURGE (g ACTUAL PURGE (gal) =	100		
	FIELD MEASUREME	ENTS			
DATE TIME (2400hr) (gal) 12-19-6	TEMP. CONDUCT (degrees F) (umhos	•	COLOR (visual) (NTU)		
SAMPLE DEPTH TO WATER: 5.69	SAMPLE INFORMAT	TION SAMPLE TURB	IDITY:		
80% RECHARGE: YES NO	ANALYSES:				
	VESSEL/PRESERVATIVE: V	oa-fice			
Centrifugal Pump Bailer ((PVC) C (Stainless Steel) St	SAMPLING EQUIPMENT Bladder Pump Centrifugal Pump Submersible Pump Peristalic Pump Dedicated Bailer (PVC or disposable) Bailer (Stainless Steel) Dedicated			
WELL INTEGRITY: REMARKS: 0 368		LOCK#:	11057 r		
SIGNATURE:		, when the same of	Page of		

Atlantic Richfield
Company
A BP affiliated company

Chain	of	Custody	Record
CAMPELLA	U.	Custous	TYCCOLO

Project Name: ARCO 4977
BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 4977

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

	Page1011	
On-site Time: /3:70	Temp: 65	
Off-site Time: 15: 25	Temp: 63	
Sky Conditions: Clear		
Meteorological Events:		
Wind Speed: 👄	Direction: APA	

Lab Name: TestAmerica	BP/AR Facility No.: 4977		Consultant/Contractor;				
Address: 885 Jarvis Drive		stro Valley Road, Castro Valley	Address: 3330 Camer	on Park Drive, Suite 550			
Morgan Hill, CA 95937	Site Lat/Long;		Cameron Pa	Cameron Park, CA 95682			
Lab PM: Lisa Race	California Global ID No.: T06001		Consultant/Contractor Proje	ct No.:			
Tele/Fax: 408-782-8156 408-782-6308 (fax)	Enfos Project No.: G0C2H	-0017	Consultant/Contractor PM:	Jay Johnson			
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one)	Provision	Tele/Fax: (530) 676-60	000 / (530) 676-6005			
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS: 04-Monitoria	g	Report Type & QC Level:	Level 1 with EDF			
San Ramon, CA	Sub Phase/Task: 03-Analytica	I	E-mail EDD To: cjewitt@	<u> ⊉stratusinc.net</u>			
Tele/Fax: 925-275-3506	Cost Element: 01-Contracto	r labor	Invoice to: Atlantic Richfiel	id Co.			
Lab Bottle Order No: Matrix	Prese	rvative Req	uested Analysis				
Item Date Description Date Water/Liquid Air	No. of Containers Unpreserved H ₂ SO ₄	HCI Methanol GRO/BTEX/Oxy* 1,2-DCA Ethanol EDB	DRO	Sample Point Lat/Long and Comments			
1 MW-1 15 05 12-19-4 X	3	x x x x					
2 MW-2 1427 1 X	3	x x x x		*Oxy = MTBE,TAME,ETBE,DIPE,TBA			
3 MW-3 1435 X	6	x x x x					
4 TB-4977-12-19-06 6:00 X	2	X XXX		Hold			
5							
6							
7							
8							
9				(1900)			
10			,				
Sampler's Name: Jerry Garzaly Sampler's Company: Doct/05 Env	Relinquished By / Affiliation	n Date Time	Accepted By / Af				
Sampler's Company: Doce/05 End	Merrica	12/26 11:10		12/26 1110			
Shipment Date:	3						
Shipment Method:	·						
Shipment Tracking No:							
Special Instructions: Please cc results to rmiller	oadbentinc.com						
		<u> </u>					
Custody Seals In Place: Yes / No Temp Blank:	/No Cooler Temp on Rece	ipt: <u>°F/C Trip Blank</u> :	: Yes / No MS/MSD Sa	ample Submitted: Yes / No			





10 January, 2007

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

RE: ARCO #4977, Castro Valley, CA

Work Order: MPL0745

Enclosed are the results of analyses for samples received by the laboratory on 12/26/06 13:30. 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]	Project: ARCO #4977, Castro Valley, CA	MPL0745
3330 Cameron Park Dr., Suite 550	Project Number: G0C2H-0017	Reported:
Cameron Park CA, 95682	Project Manager: Jay Johnson	01/10/07 15:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MPL0745-01	Water	12/19/06 15:05	12/26/06 13:30
MW-2	MPL0745-02	Water	12/19/06 14:27	12/26/06 13:30
MW-3	MPL0745-03	Water	12/19/06 14:35	12/26/06 13:30
TB-4977-12-19-06	MPL0745-04	Water	12/19/06 06:00	12/26/06 13:30

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 intact custody seals.





Project: ARCO #4977, Castro Valley, CA

Project Number: G0C2H-0017 Project Manager: Jay Johnson MPL0745 Reported: 01/10/07 15:14

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MPL0745-01) Water Sampled: 12	/19/06 15:05	Received:	12/26/06	13:30		**			~~~~~~
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6L31005	12/31/06	01/01/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		81 %	60-	145	n	"	n	"	
MW-2 (MPL0745-02) Water Sampled: 12	/19/06 14:27	Received:	12/26/06	13:30					
Gasoline Range Organics (C4-C12)	21000	2500	ug/l	50	6L31005	12/31/06	01/01/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		82 %	60-	145	n	**	"	"	
MW-3 (MPL0745-03) Water Sampled: 12	/19/06 14:35	Received:	12/26/06	13:30					
Gasoline Range Organics (C4-C12)	450	50	ug/l	1	6L31005	12/31/06	01/01/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		84 %	60-	145	,,	"	11	11	_





Project: ARCO #4977, Castro Valley, CA

Project Number: G0C2H-0017 Project Manager: Jay Johnson MPL0745 Reported: 01/10/07 15:14

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MPL0745-01) Water 5	Sampled: 12/19/06 15:05	Received:	12/26/06	13:30					
tert-Amyl methyl ether	ND	0.50	ug/l	1	6L31005	12/31/06	01/01/07	EPA 8260B	
Benzene	ND	0.50	u,	D.	"	"	tı	11	
tert-Butyl alcohol	ND	20	lt .	14	11	h	u	1)	
Di-isopropyl ether	ND	0.50	H	lı	н	п	0	0	
1,2-Dichloroethane	ND	0.50	'n	н	н	11	It	0	
Ethanol	ND	300	n	ij	ţı	U	It .	lt .	IC
Ethyl tert-butyl ether	ND	0.50	ţı	U	u	U	"	и	
Ethylbenzene	ND	0.50	1)	U.	U	It	n	b	
Methyl tert-butyl ether	4.3	0.50	O.	f†	If	"	U	11	
Toluene	ND	0.50	p	ıı .	и	н	n	W.	
Xylenes (total)	ND	0.50	"	"	н	11	l:	u.	_
Surrogate: Dibromofluoromethan	ie	95 %	75-i	130	"	ı	"	"	
Surrogate: 1,2-Dichloroethane-de	4	81%	60-1	145	tr	v	"	"	
Surrogate: Toluene-d8		101 %	70-1	130	v	"	"	"	
Surrogate: 4-Bromofluorobenzene	e	98 %	60-1	120	n	"	11	Ħ	
MW-2 (MPL0745-02) Water S	Sampled: 12/19/06 14:27	Received:	12/26/06	13:30					
tert-Amyl methyl ether	ND	25	ug/l	50	6L31005	12/31/06	01/01/07	EPA 8260B	
Benzene	500	25	II.	14	It	**	0	U	
tert-Butyl alcohol	ND	1000	I†	lı	h	**	V.	U .	
Di-isopropyl ether	ND	25	Ħ	11	lı	71	V	U.	
1,2-Dichloroethane	ND	25	lt	h	н	Ħ	D	D	
Ethanol	ND	15000	н	n	11	tı .	n	It	1C
Ethyl tert-butyl ether	ND	25	n	11	11	n	и	и	
Ethylbenzene	1400	25	и	ħ	11	"	n	μ	
Methyl tert-butyl ether	70	25	н	Ð	O	O	ļi	н	
Toluene	ND	25	ři .	ø	U	It.	†I	IJ	
Xylenes (total)	1700	25	†I	U	17	И	†1	+1	
Surrogate: Dibromofluoromethan	e	95 %	75-1	30	v	tt	n	v	
Surrogate: 1,2-Dichloroethane-d4	‡	82 %	60-1	45	tr	"	"	"	
Surrogate: Toluene-d8		103 %	70-1	30	"	"	"	u	
Surrogate: 4-Bromofluorobenzene	?	100 %	60-1	20	"	n	"	n	





Project: ARCO #4977, Castro Valley, CA

Project Number: G0C2H-0017 Project Manager: Jay Johnson MPL0745 Reported: 01/10/07 15:14

Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MPL0745-03) Water	Sampled: 12/19/06 14:35	Received:	12/26/06 1	13:30					
tert-Amyl methyl ether	ND	0.50	ug/l	1	6L31005	12/31/06	01/01/07	EPA 8260B	
Benzene	4.3	0.50	11	U	0	"	и	#	
tert-Butyl alcohol	ND	20	U	O	O	Ħ	u	n	
Di-isopropyl ether	ND	0.50	O.	H	tr.	и	ø	Ð	
1,2-Dichloroethane	ND	0.50	t t	н	Ħ	"	O	O.	
Ethanol	ND	300	I+	H	н	11	U	O.	IC
Ethyl tert-butyl ether	ND	0.50	н	п	"	ø	lt.	IT .	
Ethylbenzene	19	0.50	9	*1	ej	(I	lt .	it	
Methyl tert-butyl ether	19	0.50	П	q	Ħ	D	и	н	
Toluene	ND	0.50	11	u	1)	U	ŋ	11	
Xylenes (total)	1.4	0.50	0	0	0	Р	11	n	_
Surrogate: Dibromofluorometha	1e	94 %	75-1.	30	"	"	11	· n	
Surrogate: 1,2-Dichloroethane-d	4	84 %	60-1-	45	"	"	u	n	
Surrogate: Toluene-d8		102 %	70-1.	30	"	"	n	n .	
Surrogate: 4-Bromofluorobenzen	e	99 %	60-1.	20	"	**	n	n	





Project: ARCO #4977, Castro Valley, CA

Project Number: G0C2H-0017 Project Manager: Jay Johnson MPL0745 Reported: 01/10/07 15:14

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6L31005 - EPA 5030B P/T /	LUFT GCMS									
Blank (6L31005-BLK1)				Prepared:	12/31/06	Analyzed	l: 01/01/07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.08		"	2.50		83	60-145			
Laboratory Control Sample (6L31005	-BS2)			Prepared:	12/31/06	Analyzed	1: 01/01/07			
Gasoline Range Organics (C4-C12)	535	50	ug/l	500		107	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.09		"	2.50		84	60-145			
Laboratory Control Sample Dup (6L3	1005-BSD2)			Prepared:	12/31/06	Analyzed	1: 01/01/07			
Gasoline Range Organics (C4-C12)	519	50	ug/l	500		104	75-140	3	20	
Surrogate: 1.2-Dichloroethane-d4	2.13		n	2.50		85	60-145			





Project: ARCO #4977, Castro Valley, CA

Project Number: G0C2H-0017 Project Manager: Jay Johnson MPL0745 Reported: 01/10/07 15:14

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
Batch 6L31005 - EPA 5030B P/T /	EPA 8260B								1	
Blank (6L31005-BLK1)				Prepared:	12/31/06	Analyzed	: 01/01/07			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	u							
tert-Butyl alcohol	ND	20	ır							
Di-isopropyl ether	ND	0,50	**							
1,2-Dichloroethane	ND	0,50	11							
Ethanol	ND	300	н							
Ethyl tert-butyl ether	ND	0.50	'n							
Ethylbenzene	ND	0.50	71							
Methyl tert-butyl ether	ND	0.50	41							
Toluene	ND	0.50	u							
Xylenes (total)	ND	0.50	U							
Surrogate: Dibromofluoromethane	2.32		"	2.50		93	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.08		"	2.50		83	60-145			
Surrogate: Toluene-d8	2.49		"	2.50		100	70-130			
Surrogate: 4-Bromofluorobenzene	2.27		"	2.50		91	60-120			
Laboratory Control Sample (6L31005	-BS1)			Prepared:	12/31/06	Analyzed	: 01/01/07			
tert-Amyl methyl ether	9.72	0.50	ug/l	10.0		97	65-135		·····	
Benzene	9.96	0.50	ø	10.0		100	70-125			
tert-Butyl alcohol	184	20	0	200		92	60-135			
Di-isopropyl ether	9.66	0.50	D	10.0		97	70-130			
1,2-Dichloroethane	8.94	0.50	0	10.0		89	75-125			
Ethanol	244	300	0	200		122	15-150			
Ethyl tert-butyl ether	9.74	0.50	t [†]	10.0		97	65-130			
Ethylbenzene	10.7	0.50	I†	10.0		107	70-130			
Methyl tert-butyl ether	8.97	0.50	pt.	10.0		90	50-140			
Toluene	10.3	0.50	н	10.0		103	70-120			
Xylenes (total)	33.5	0.50		30.0		112	80-125			
Surrogate: Dibromofluoromethane	2.45	,	"	2.50		98	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.12		"	2.50		85	60-145			
Surrogate: Toluene-d8	2.56		tr.	2.50		102	70-130			
Surrogate: 4-Bromofluorobenzene	2.45		"	2.50		98	60-120			





Project: ARCO #4977, Castro Valley, CA

Project Number: G0C2H-0017 Project Manager: Jay Johnson MPL0745 Reported: 01/10/07 15:14

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

Anaiyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6L31005 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (6L31005-MS1)	Source: M	IPL0745-03		Prepared:	12/31/06	Analyzed	I: 01/01/07			
tert-Amyl methyl ether	9.63	0.50	ug/l	10.0	ND	96	65-135			**.*
Benzene	14.3	0.50	и	10.0	4.3	100	70-125			
tert-Butyl alcohol	233	20	н	200	ND	116	60-135			
Di-isopropyl ether	9.64	0.50	ti	10.0	ND	96	70-130			
1,2-Dichloroethane	8.84	0.50	U	10.0	ND	88	75-125			
Ethanol	231	300	μ	200	ND	116	15-150			
Ethyl tert-butyl ether	9.80	0.50	It	10.0	ND	98	65-130			
Ethylbenzene	29.6	0.50	"	10.0	19	106	70-130			
Methyl tert-butyl ether	28.3	0.50	tı	10.0	19	93	50-140			
Toluene	10.4	0.50	Đ	10.0	ND	104	70-120			
Xylenes (total)	35.0	0.50	0	30.0	1.4	112	80-125			
Surrogate: Dibromofluoromethane	2.39		"	2.50		96	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.11		"	2.50		84	60-145			
Surrogate: Toluene-d8	2.54		"	2.50		102	70-130			
Surrogate: 4-Bromofluorobenzene	2.48		tt	2.50		99	60-120			
Matrix Spike Dup (6L31005-MSD1)	Source: M	PL0745-03		Prepared:	12/31/06	Analyzed	: 01/01/07			
tert-Amyl methyl ether	9.85	0.50	ug/l	10.0	ND	98	65-135	2	25	
Benzene	14.8	0.50	#1	10.0	4.3	105	70-125	3	15	
tert-Butyl alcohol	255	20	11	200	ND	128	60-135	9	35	
Di-isopropyl ether	9.91	0.50	e	10.0	ND	99	70-130	3	35	
1,2-Dichloroethane	9.12	0.50	ij	10.0	ND	91	75-125	3	10	
Ethanol	275	300	Q	200	ND	138	15-150	17	35	
Ethyl tert-butyl ether	10.0	0.50	n	0.01	ND	100	65-130	2	35	
Ethylbenzene	29.9	0.50	H	10.0	19	109	70-130	1	15	
Methyl tert-butyl ether	28.6	0.50	H	10.0	19	96	50-140	1	25	
Foluene	10.6	0.50	и	10.0	ND	106	70-120	2	15	
Xylenes (total)	34.7	0.50	"	30.0	1.4	111	80-125	0.9	15	
Surrogate: Dibromofluoromethane	2.46) t	2.50		98	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.14		"	2.50		86	60-145			
Surrogate: Toluene-d8	2.64		n	2.50		106	70-130			
Surrogate: 4-Bromofluorobenzene	2.53		"	2.50		101	60-120			





Project: ARCO #4977, Castro Valley, CA

Project Number: G0C2H-0017 Project Manager: Jay Johnson MPL0745 Reported: 01/10/07 15:14

Notes and Definitions

IC Calib. verif. is within method limits but outside contract limits

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

_	_	_	
Page_	1_	_ ot	

Atlantic Richfield
Company
A BP affiliated company

Chain of Custody Record

Project Name: ARCO 4977
BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 4977

State or Lead Regulatory Agency: Requested Due Date (mm/dd/yy):

On-site Time: /3:10	Temp: 65
Off-site Time: /5: 25	Temp: 63
Sky Conditions: Clear	<u> </u>
Meteorological Events:	
Wind Speed: 👄	Direction: WA

Lab Name: TestAmerica								BP/AR Facility No.: 4977									Con	Consultant/Contractor: Stratus Environmental, Inc.								
Address: 885 Jarvis Drive								BP/AR Facility Address: 2770 Castro Valley Road, Castro Valley										Address: 3330 Cameron Park Drive, Suite 550-								
Morgan Hill, CA 95937								Site Lat/Long:										Cameron Park, CA 95682								
Lab PM: Lisa Race								California Global ID No.: T060010089										Consultant/Contractor Project No.;								
Tele/Fax: 408-782-8156 408-782-6308 (fax)								Enfos Project No.: G0C2H-0017											Consultant/Contractor PM: Jay Johnson							
BP/AR PM Contact: Paul Supple								Provision or OOC (circle one) Provision												Tele/Fax: (530) 676-6000 / (530) 676-6005						
Addr	ess: 2010 Crow Canyon Place, Suit	e 150						Phase/WBS: 04-Monitoring										Report Type & QC Level: Level 1 with EDF								
	San Ramon, CA							Sub Phase/Task:	ub Phase/Task: 03-Analytical									E-mail EDD To: cjewitt@stratusinc.net								
1	Fax: 925-275-3506																	~	Invoice to: Atlantic Richfield Co.							
Lab	Bottle Order No:			<u> </u>	Ma	trix					P	reser	vatí	ve ,					Request	ted Analysis						
Item No.		Time	Date	Soil/Solid	Water/Liquid	Air		Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO3	нсі	Methanol		GRO/BTEX/Oxy*	1,2-DCA	Etbanol	EDB	DRO						Sample Point Lat/Long and Comments
1	MW-1	1505	12-19-4	-	х			01	3				X			X	X	X								
2	MW-2	1427	1		х			02	3				X					х								*Oxy = MTBE, TAME, ETBE, DIPE, TBA
3	MW-3	1435			х		\neg	03	6				X			Х	x	х		Π						
4	TB-4977-12-19-06.	6:00		⇈	X			04	2				X		•	X	义	入								140106
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Sampler's Name: Jerry Garzafa								Relinguished By / Affiliation Date Time								Time	Accepted By / Affiliation Date Time									
Sampler's Company: Decelos Env								Merchan							12/	12/26 11:10				12/26 1100						
Shipment Date:																	100m/ Den my 2/26 1836									
wingment Method:																										
ρ· -	Tracking No:																									<u> </u>
	Please cc results to rmiller@broadbentinc.com																									
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						_	_																			BP COC Rev. 5 10/11/2006

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: REC. BY (PRINT) WORKORDER:	BO EL MPL0745		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	12/26/ 1380 12/2	/o.c -7106			For Regula DRINKING WASTE WA	/ 11
CIRCLE THE APPRO	OPRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent								
	Intact) Broken*								
2. Chain-of-Custody	Present / Absent*		No.		\bigcirc				/
3. Traffic Reports or							>		
Packing List:	Present / Absent								
4. Airbill:	Airbill / Sticker							``	
	Present / Absent								
5. Airbill #:									
6. Sample Labels:	Present / Absent		**************************************						
7. Sample IDs:	Listed/ Not Listed		· · · · · · · · · · · · · · · · · · ·						
·	on Chain-of-Custody								
8. Sample Condition: (Intact / Broken* /				,				
	Leaking*			D/20	104	E	4		
9. Does information on	chain-of-custody,	***************************************					-		
traffic reports and s	ample Jabels								
agree?	Yes / No*								
10. Sample received with									
hold time?	Yes / No*								
11. Adequate sample volu	ıme								
received?	Yes / No*								
12. Proper preservatives	used? (Yes/No*								
13. Trip Blank / Temp Bla	nk Received?			•					
(circle which, if yes)	Yes/No*								
14. Read Temp:	2.4		-						
Corrected Temp:	11 11	7	` ` `	-					
is corrected temp 4+	/-2°C? (Yes') No**								
viance range for samples re	\ /		·········						
	ALS / DFF ON ICE	7	<i>;</i>						2
nC.									<u> </u>
		*IF CIRC	LED, CONTACT PROJEC	T MANAGER	AND ATT	ACH F	RECORD	OF RESOLL	ITION.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been successfully uploaded!

Confirmation Number: 1707891285

Date/Time of Submittal: 1/26/2007 12:01:58 PM

Facility Global ID: T0600100089 Facility Name: ARCO #4977

Submittal Title: 4Q06 GW Monitoring **Submittal Type:** GW Monitoring Report

Click here to view the detections report for this upload.

ARCO #4977
2770 CASTRO VALLEY
CASTRO VALLEY, CA 94546

Regional Board - Case #: 01-0097
SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency (lead agency) - Case #: R00002436

ALAMEDA COUNTY LOP - (SP)

 CONF #
 TITLE
 QUARTER

 1707891285
 4Q06 GW Monitoring
 Q4 2006

SUBMITTED BY SUBMIT DATE STATUS

Broadbent & Associates, Inc. 1/26/2007 PENDING REVIEW

SAMPLE DETECTIONS REPORT

FIELD POINTS SAMPLED

FIELD POINTS WITH DETECTIONS

FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL

SAMPLE MATRIX TYPES

WATER

METHOD QA/QC REPORT

TECHNICAL HOLDING TIME VIOLATIONS

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

QA/QC FOR 8021/8260 SERIES SAMPLES

METHOD HOLDING TIME VIOLATIONS

LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT

OLAB BLANK DETECTIONS

DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?

- LAB METHOD BLANK

- MATRIX SPIKE

N

MATRIX SPIKE UPLICATE

BLANK SPIKE

Y

SURROGATE SPIKE

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 **SAMPLE** COLLECTED **DETECTIONS > REPDL** QCTB SAMPLES Ν 0 QCEB SAMPLES N 0 **QCAB SAMPLES** N 0

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

Station #4977

Electronic Submittal Information

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UPLOADING A GEO_WELL FILE

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

<u>Submittal Title:</u> 4Q06 GEO_WELL <u>Submittal Date/Time:</u> 1/24/2007 3:33:11 PM

Confirmation Number: 3302523553

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CONTACT SITE ADMINISTRATOR.