



P.O. Box 1257 San Ramon, California 94583

Phone: (925) 275-3801 Fax: (925) 275-3815

27 July 2007

Re: Second Quarter 2007 Ground-Water Monitoring Report Former BP Service Station # 11102

100 MacArthur Boulevard Oakland, California ACEH Case #RO0000456

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

Submitted by:

Paul Supple Environmental Business Manager



2:41 pm, Jul 31, 2007

Alameda County Environmental Health



Second Quarter 2007 Ground-Water Monitoring Report

Former BP Service Station #11102 100 MacArthur Boulevard 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

27 July 2007

Project No. 06-08-643

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



27 July 2007

Project No. 06-08-643

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

Attn.: Mr. Paul Supple

Re:

Second Quarter 2007 Ground-Water Monitoring Report, Former BP Service Station

#11102, 100 MacArthur Boulevard, Alameda County, Oakland, California;

ACEH Case #RO0000456

Dear Mr. Supple:

Attached is the *Second Quarter 2007 Ground-Water Monitoring Report* for Former BP Service Station #11102 (herein referred to as Station #11102) located at 100 MacArthur Boulevard, Oakland, Alameda County, California (Site). This report presents a summary of results from ground-water monitoring conducted during the Second Quarter of 2007.

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

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus Senior Engineer, P.E.

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

Principal Hydrogeologist

Sabet 71. Mil

Enclosures

cc: Mr. Steven Plunkett, Alameda County Environmental Health (Submitted via ACEH ftp site)

Ms. Shelby Lathrop, ConocoPhillips (Submitted via WebXtender)

Mr. Chris Jimmerson, Reimbursement Processor, Delta Environmental Consulting Inc.,

(Submitted via ENFOS)

Electronic copy uploaded to GeoTracker

ARIZONA CALIFORNIA

NEVADA TEXAS

ROBERT H. MILLER

STATION #11102 OUARTERLY GROUND-WATER MONITORING REPORT

Facility: #11102 Address: 100 MacArthur Boulevard, 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.: 06-08-643

Primary Agency/Regulatory ID No.: Alameda County Environmental Health (ACEH)

ACEH Case #RO0000456

WORK PERFORMED THIS QUARTER (Second Quarter 2007):

1. Prepared and submitted First Quarter 2007 Ground-Water Monitoring Report.

2. Conducted ground-water monitoring/sampling for Second Quarter 2007. Work performed by Stratus Environmental, Inc (Stratus).

WORK PROPOSED FOR NEXT OUARTER (Third Quarter 2007):

1. Prepared and submitted this Second Quarter 2007 Ground-Water Monitoring Report (contained herein).

2. Conduct quarterly ground-water monitoring/sampling for Third Quarter 2007. Work to be completed by Stratus.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	Ground-Water Monitoring/Sampling
Frequency of ground-water monitoring:	Quarterly: Wells MW-1 through MW-3
Frequency of ground-water sampling:	Quarterly: Wells MW-1 through MW-3
Is free product (FP) present on-site:	No
Current remediation techniques:	NA
Depth to ground water (below TOC):	10.65 (MW-1) to 11.93 (MW-3)
General ground-water flow direction:	West
Approximate hydraulic gradient:	0.05 ft/ft

DISCUSSION:

Second Quarter 2007 ground-water monitoring and sampling was conducted at Station #11102 on 10 April 2007 by Stratus. Water levels were gauged in the three wells at the Site. No irregularities were noted during water level gauging. Depths to water measurements ranged from 10.65 ft at well MW-1 to 11.93 ft at well MW-3. Resulting ground-water surface elevations ranged from 79.55 ft above mean sea level in well MW-1 to 75.09 ft at well MW-3. 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 of 0.05 ft/ft to the west, which is generally consistent with historical data (see 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. Current and historic ground-water flow directions and gradients are provided in Table 3. Potentiometric ground-water elevation contours are presented in Drawing 1.

Consistent with the current ground-water sampling schedule, water samples were collected from each of the three wells on the Site. Wells MW-2 and MW-3 purged dry before three casing volumes were removed. No other irregularities were encountered during sampling. Samples were submitted under

Page 2

chain-of-custody protocol to Test America Analytical Testing Corporation (Morgan Hill, California), for analysis of Gasoline Range Organics (GRO, C4-C12) by the LUFT GCMS Method; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and tert-Amyl methyl ether (TAME), tert-Butyl alcohol (TBA), Di-isopropyl ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Ethanol, Ethyl tert-butyl ether (ETBE), and Methyl tert-butyl ether (MTBE) by EPA Method 8260B. No irregularities were encountered during laboratory analysis of the samples, with the exception that the reported GRO concentrations for samples MW-2 and MW-3 were partly due to individual peak(s) in the quantitation range. These notes are called out in the laboratory analytical reports. Ground-water sampling field data sheets and the laboratory analytical report, including chain of custody documentation, are provided in Appendix A.

Gasoline Range Organics were detected above the laboratory reporting limit in each of the wells sampled at concentrations up to 1,300 micrograms per liter (μ g/L) in well MW-2. Benzene was detected above the laboratory reporting limit in one of the three wells sampled at a concentration of 1.4 μ g/L in well MW-1. TBA was detected above the laboratory reporting limit in two of the three wells sampled at concentrations up to 6,400 μ g/L in well MW-2. MTBE was detected above the laboratory reporting limit in each of the wells sampled at concentrations up to 1,500 μ g/L in well MW-2. The remaining fuel additives and oxygenates were not detected above their laboratory reporting limits in the three 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:

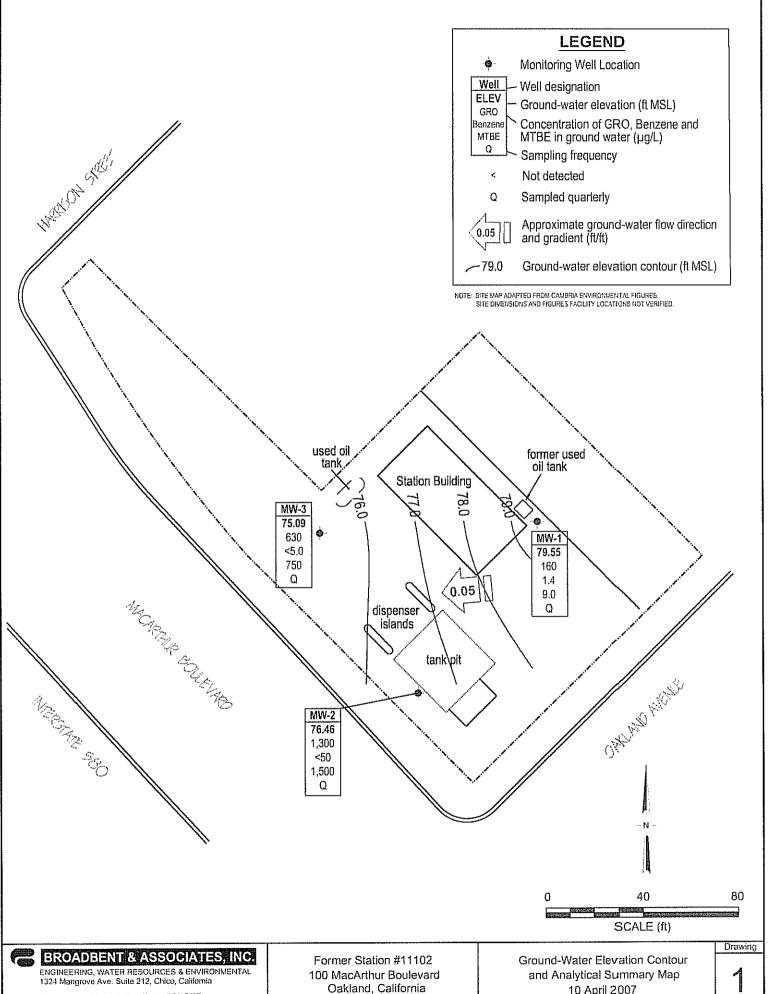
The findings presented in this report are based upon: observations of Stratus field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Test America (Morgan Hill, California). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

ATTACHMENTS:

- Drawing 1. Ground-Water Elevation Contour and Analytical Summary Map, 10 April 2007, Former Station #11102, 100 MacArthur Boulevard, Oakland, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #11102, 100 MacArthur Blvd., Oakland, CA
- Table 2. Summary of Fuel Additives Analytical Data, Station #11102, 100 MacArthur Blvd., Oakland, CA
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #11102, 100 MacArthur Blvd., Oakland, CA

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

Appendix B. GeoTracker Upload Confirmation



Project No.: 06-08-643 Date: 05/15/07

Oakland, California

10 April 2007

*****			тос		Product	Water Level		C	oncentrati	ons in (µg/	L)			1		DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(feet)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(μg/L)	(μg/L)	(μg/L)
MW-1																		
11/4/1989			90.20	13.21		76.99	<500	344	0.6	₹ 6.3	€03			SAL		<50	\$5000	
11/11/1989		den de la composition della co	90.20	13.32		76.88												
4/3/1990			90.20	12.46		77.74	820	64	i juliju	23	34			ANA				
7/30/1990		TA ET TO POLITICA LA COLLEGA DE LA COLLEGA D	90.20	12.92		77.28	190	11	<5.0	<5.0	<5.0			ANA		<50	<5000	
11/20/1990			90.20	14.08		76.12	50	2,4	<0.3	<0.5	403			SAL		79	<5000	
3/1/1991		Control to the state of the sta	90.20	13.61		76.59	<100	0.9	<0.3	< 0.3	0.3			SAL		<1000	14,000	
8/19/1991			90.20	15.74		74.46	370	35	0.73	64	56			SEQ		350	<5000	
11/13/1991	-	TXXXX 172.10 1.2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	90.20	14.08		76.12	60	0.68	<0.3	<0.3	<0.3			SEQ		<50	<5000	
2/24/1992			90.20	12.52		77.68	140	3.9	0.66	1.2	3.8			SEQ		100	\$5000	
5/19/1992			90,20	11.80		78.40	4,200	440	21	250	37			SEQ		910	<5000	
6/17/1992			90.20	1201		78.19	4,000	350	14	150	1070			SEQ		560	<5000	
7/22/1992	 (1960) 1960 1960 1960		90.20	12.42	 Biriisinensen	77.78	4,000	<5.0	19	210	61			ANA	-		-	-
8/14/1992 11/11/1992			90.20 90.20	1275		77,45	2,400	330	20	150	47			SEQ		1,700	<5000	
6/7/1993		c	90.20	13.69		76.51	260	30	3.4 ####################################	7.6	6.8		 ###################################	ANA		92	<5000	
6/7/1993			90.20	10.93		79.27	3,700 3,400	120 98	12	26	9.5			PACE				
12/2/1993			90.20	12.72		77.48	1,100	83	11 3.6	21 0.6	7.6 1.5			PACE PACE		440	 16:14:1:21:20:00:00:	
6/22/1994		d d	90.20	11.81	######################################	78.39	2,100	32	3.8	2.2	17	4,000	3.2	PACE		120 <50	<5000	
6/22/1994		e d	90.20				2,100	30	9.0 1911-1911-1111	2.1	115	2,000		PACE			<5000	
1/10/1995		c	90.20		-		<500	120	5 <5	10.000.000.000.000.000.000.000.000.000.	**************************************			ATI				Sent to be to be to be a
1/10/1995			90,20	10.97		79.23	< 500	120	## 25 ###	1 85	1 10111		30	An		420		
6/21/1995		aara ara eya eya eya eya e	90.20	9.38		80.82	4,700	16	<5.0	<5.0	<10	-	6.7	ATI		1,300	2,900	0.6
6/21/1995		c, e	90.20				3,600	::13	\$5 ,0 m	₩ 5 ;0	#iĕiö			ATI				
12/27/1995			90.20	11.55	-	78.65	430	<2.5	<2.5	<2.5	<5.0	1,200	6.3	ATI		2,100	640	-
6/13/1996			90.20	9.28		80.92	3,200	51	<12	<12	<12	4,000	6.3	SPL		920	2,000	781 - 1814 - 1824 - 183 211 - 183 - 183 - 183 212 - 183 - 183 - 183
12/4/1996		ſ	90.20	11.91	PETERSTERS SERVICE SER	78.29	1,400	6.2	<5	<5	<5	2,600	6.7	SPL		280	2,000	6
6/10/1997			90.20	8.97		81.23	7,900	12	<10	<10	<10	15,000	6	SPL	14	1,700	दर्ग	
6/10/1997		c necessaria	90.20	 Interpreparation	 Birnikkiri bilikmaria		7,700	14	<25	<25	<25	13,000		SPL				
12/12/1997			90.20	11.27		78.83	440	8.8	<1.0	2.6	9,4	6,700	5.5	SPL		760	1,200	
6/18/1998 3/9/1999			90.20	8.02		82.18	7,500	<2.5	<5.0	<5.0	<5.0	5,600	4.9	SPL		2,900	<5	
			90,20	9.80		80.40	32,000	100	16	72	110	49,000		SPL				

		*	TOC		Product	Water Level		C	oncentrati	ons in (µg/	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(feet)	(feet msl)	TPHg	Benzene	Tolucne	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(μg/L)	(μg/L)	(μg/L)
MW-1 Cont.																		
9/28/1999			90.20	10.78		79.42	1.000	<5.0	≤5.0	 	<5.0	730		SPL				≤1.0
10/14/1999	 		90.20	10.84		79.36		-						SPL		660		
3/27/2000			90.20	9.83		80.37	4,300	160	19	137	43 1	28.000		PACE				
9/28/2000		A LANGE TO STATE OF THE STATE O	90.20	11.33		78.87	2,700	10	2.6	1.1	2.7	28,000	::::::::::::::::::::::::::::::::::::::	PACE				
3/8/2001			90.20	10.96		79.24	8,200	23.5	6.09	5.23	8.97	11,600		PACE	HWARING.			
9/21/2001		T T T T T T T T T T T T T T T T T T T	90.20	12.07		78.13	6,000	37.9	< 0.5	< 0.5	<1.5	7,370		PACE		-		
2/28/2002		TANKA (COLORDON COLORDON COLOR	90:20	10.48		79.72	6,400	60.8	<5.0	643	<10	7,750		PACE				
9/6/2002	-		90.20	11.20	-	79.00	1,400	<5.0	<5.0	<5.0	<5.0	6,000		SEQ				
2/19/2003			90.20	11.29		78.91	<10000	<100	110	₹100	\$100°	4,500		SEQ				
7/14/2003		12456124444ahund yil pennyyyyy	90.20	11.18	-	79.02	710	11	<10	<10	<10	940		SEQ	-			
01/14/2004			90.20	11.74		78.46	≺500	i<5,0	<5.0	₹5.0	্ব হৈ 🗓	220		SEQM	6.6			
04/23/2004	P	1	90.20	11.95		78.25	470	3.4	<2.5	<2.5	<2.5	150		SEQM	6.7			
07/01/2004	P		90.20	11152		78.68	360	<2.5	<2.5 ⊪	2 25	<2.5	96		SEQM	6.0			
10/28/2004	P Hijerpana		90,20	12.56	 SHEEDENEMEN	77.64	390	0.94	< 0.50	<0.50	< 0.50	43		SEQM	6.2			
01/10/2005 04/13/2005	P		90.20	11.85		78.35	490	17	\$25	5,8	54	85		SEQM	7.6			
07/11/2005			90.20 90.20	10.00 9.27		80.20 80.93	1,000	27 00000-2500	<2.5	<2.5	25	48		SEQM	6.6	 :::::::::::::::::::::::::::::::::::		LL CONTRACTOR CONTRACT
10/17/2005	P		90.20	10.96		79.24	180 140	<0.50 <0.50	<0.50	3050	<0.50	36		SEOM	747			
01/17/2006	Dipli		90.20	10.50		79.24 79.39	140	0.50	<0.50 <0.50	<0.50 <0.50	<0.50 0.56	20 38	— 946696666	SEQM	8.0	 !!!!!!	— Modernans	TIPTETTI VILLEGIA
04/21/2006	P	m	90.20	9.28		80.92	410	1.4	1.0	<0.50	<0.50	17		SEOM	65			
7/17/2006			90.20	9.25		80.95	₹50	<0.50 <0.50	<0.50	<0.50	<0.50	55		SEQM TAMC	6.5 7.7			
7/26/2006	-		90.20	8,57		81.63	<50	<0.50	<0.50	<0.50	<0.50	4.4		TAMC	6.6			
10/31/2006	P		90.20	9.80		80.40	<50	₹020	<0.50	60.50	<0.50	2.8	2.81	TAMC	6.99			
1/8/2007	P	111 digas betaka parta a	90.20	10.36		79.84	<50	2.2	<0.50	<0.50	<0.50	6.2	2.51	TAMC	6.97			
4/10/2007	P		90.20	10.65		79.55	160	1.4	<0.50	≤ 0.50	<0.50	9.0	1.75	TAMC	7.00			
MW-2							119-119-119-119-119-119-119-119-119-119											
11/4/1989			87.91	15.84		72.07	<500	6.5	<0.3	≮0.3	<0,3			SAL .				
11/11/1989			87.91	14.75		73.16								moal				
4/3/1990			87.91	15.25		72.66	<u>₹500</u>	- - - - - - - - - - - - - - - - - - -	<0.5	 	<0.5			ANA				
7/30/1990			87.91	15.59	1144444444 	72.32	61	6.5	<0,5	<0.5	<0.5	-		ANA	-			

			тос		Product	Water Level		С	oncentratio	ons in (µg/	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(fcet)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	(μg/L)	(μg/L)
MW-2 Cont.																		
11/20/1990			87.91	17.81		70.10	450	adioja ili	<0,3	<0.3	<0.3			SAL				
3/1/1991			87.91	17.11		70.80	<100	0.4	<0.3	<0.3	<0.3			SAL				**
8/19/1991			87.91	17.97		69.94	<30	<0.3	≤0.3	≤0.3	<0.3			SEQ				
11/13/1991			87.91	16.76		71.15	38	0.32	<0.3	<0.3	<0.3			SEQ				
2/24/1992			87.91	15.07		72.84	<50	<0.5	<0.5	<0.5	0:58			SEQ				
5/19/1992	-		87.91	14.70		73.21	<50	0.55	<0.5	<0.5	<0.5			SEQ				
7/22/1992			87,91	15.60		72.31	90		0.6	0.9	19			ANA				
8/14/1992		o on a bres de la	87.91	15.88		72.03	**************			 		— ::::::::::::::::::::::::::::::::::::	 	 			<u></u>	
11/11/11992			87.91				65		≤0.5	40.5				ANA				
11/11/1992	 		87.91	16.19		71.72	52	2.8	<0.5	< 0.5	0.9			ANA				
6/7/1993			87.91	14.42		73.49	1,200	14	2.8	اورا	171			PACE				
12/2/1993		c, d	87.91				2,100	32	3.8	2.2	17 	3,700	 :::::::::::::::::::::::::::::::::::	PACE	 		 mananananan	 Chilidhikatisti
12/2/1993		d	87.91	14,94		72.97	790		0.5		<0.5	3,700		PACE		[] [] [] [] [] [] [] [] [] []		
6/22/1994		d	87.91	14.25		73.66	110	<0.5	<0.5	<0.5	<0.5	120	3.9 43	PACE				
1/10/1995			87.91 87.91	13.64 11.66		74.27 76.25	4,700	<0.5 <10	<10	v.o <10	<20		7.8	ATI ATI				
6/21/1995 12/27/1995	********************		87.91	11.00	la succession :	70.25 74.80	61100	<25	25	25	\20 	20.000	7.0 6.7	AII MATI				
12/27/1995		riii: III ii	87.91				6,300	<25	<25	<25	<50	19,000		Militarii ATI				
6/13/1996			87.91	10.86		77.05	8,300	42.5	25 E	225	2.5	13,000	6.5	SPL				
6/13/1996		C C	87.91				8,700	<5	<5	- - - - - - - - - - - -	**************************************	13,000		SPL				
12/4/1996		ereministered slikelet il	87.91	13.03		74.88	5,900	₹2.5	- 25		# 25	11,000	6.3	SPL				
12/4/1996		C C	87.91			 	5,900	<2.5	<5	<5	<5	11,000		SPL	 			
6/10/1997			87.91	10,04		77.87	<50	<0.5	<1,0	21:0	\$ <u>1</u> 10	<10	5.8	SPL				
12/12/1997			87.91	12.44		75.47	<50	< 0.5	<1.0	<1.0	<1.0	<10	5.7	SPL				
6/18/1998			87.91	8.89		79.02	50	KO.5	\$1;0	1 1,0	 	₹io	53	SPL				
6/18/1998		c c	87.91				<50	<0.5	<1.0	<1.0	<1.0	<10		SPL		-		
3/9/1999			87,91	10.20		77.71	15,000	≤5.0	<5:0	<5.0	⊮<5.0 m	23,000		SPL	991 35 121			
9/28/1999		111111111111111111111111111111111111111	87.91	11.81		76.10	36,000	<5.0	12	7	26	35,000	**************************************	SPL				<5.0
10/14/1999			87,91	10.27		77.64								SPL		100		
3/27/2000			87.91	9.98		77.93	1,300	<0.5	<0.5	0.51	<0.5	5,800		PACE				
9/28/2000			87.91	11,40		76.51	1,600	1.8	1.7	0.54	2.2	15,000		PACE				

			тос		Product	Water Level		C	oncentrati	ons in (μg/	L)					DRO/		
Well and		-	Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(feet)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(μg/L)	(µg/L)	(μg/L)
MW-2 Cont.																		
3/8/2001			87.91	11.16		76:75	20,000	<0.5	<0.5	<0.5	<0.5	29,100		PACE				
9/21/2001			87.91	11.65	_	76.26	5,000	<0.5	<0.5	<0.5	<1.5	6,110	-	PACE				-
2/28/2002			87.91	9.86		78.05	3,200	35.1	<0.5	K05	≤1.0	4,620		PACE				
9/6/2002		1,5004317942038137107177	87.91	12.32		75.59	1,900	<10	<10	<10	<10	15,000		SEQ				
2/19/2003		h	87.91	11.63		76.28	45,000	<250	<250	≤250	₹250	32,000		SEQ				
7/14/2003		-	87.91	12.07		75.84	9,300	<500	<500	<500	<500	24,000	 Innernennan	SEQ	 Herenges		 Hillipanisani	
01/14/2004			87.91	111.45		76.46	<50,000	<500	<500	<500	\$500	21,000		SEQM	6.9			
04/23/2004	P		87.91	11.45	 Haundannen	76.46 75.59	5,100 <5,000	<250 - - - - -	<250 ≪50	<250 <50	<250 ≪50	22,000 5,200		SEQM SEQM	6.8 5.6			
07/01/2004 10/28/2004	P P		87.91 87.91	13.02		74.89	8,500	<50	<50	<50	<50	6.800		SEOM	6.2			
01/10/2005			87.91	14:38		73.53	<25,000	- 250 - 250	250	-50 -250	250	7,100		SEQM	7.6			
######################################	unicafutuidi P		87.91	14.03		30000000000000000000000000000000000000	<5,000	<50	46000000000000000000000000000000000000	<50	<50	5,300		SEQM	6.6			
07/11/2005	P		87.91	11125		76.66	₹5,000	*50	250	250	550	5,300		SEQM	7.5			
10/17/2005	P		87.91	12.48	— —	75.43	<5,000	<50	<50	< 50	<50	2,500		SEQM	8.2			
01/17/2006	P		87.91	10,70		77.21	k5,000	₹50	₹50	≤ 50	\$50 !!	2,200		SEQM	7.0			idaj-rija
04/21/2006	==	n	87.91				-	_							_		_	
7/26/2006		k	87.91	10.47	700	77,44	2,700	₹50	≤50	≤50	i\$50	2,900		TAMC	6.69			
10/31/2006	P	e i stere dell'estato di distributa	87.91	12.02		75.89	2,300	<25	<25	<25	<25	2,300	2,02	TAMC	6.71			
1/8/2007	P		87.91	11.68		76.23	1500	<12	\$12 	S12	≤12 -=•	1700	137	TAMC	6.54			
4/10/2007	P	k	87.91	11.45	-	76.46	1,300	<50	<50	<50	<50	1,500	1.60	TAMC	6.89			
MW-3																V-Essander PW-Lond		
11/4/1989			87,02	15.40		71.62	<500	<0.3	≥0.3	<03	<0.3			SAL				
11/11/1989			87.02	14.10		72.92				_				***				
4/3/1990			87.02	13.90		73.12	≮100	≮0.5	<0.5	\$05	<0.5			ANA				
7/30/1990	—— ——		87.02	13.77	<u></u>	73.25	<50	<0.5	<0.5	<0.5	<0.5	-		ANA			<5000	
11/20/1990			87.02	14.67		72.35	<50	03	0.8	0.4	115			SAL				
3/1/1991 			87.02	15.22		71.80	<100	0.4	<0.3	<0.3	<0.3	 !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!		SAL				
8/19/1991			87.02 87.02	13.15 15.66		73.87 71.36	<30 <30	<0.3 <0.3	<0.3	<0.3 <0.3	<0.3 <0.3			SEQ SEQ				
11/13/1991 2/24/1992			87.02 87.02	15.00		71.30 72.01	<50 <50	0.65	1.4	0.66	4.4			SEO				
2/24/1992 10/15/1992			1.00.02	I III JULI		10.20		1051U.03		Till 1100								

			тос		Product	Water Level		C	oncentrati	ons in (µg/	T.)			1		DRO/	<u> </u>	
Well and			Elevation	DTW	Thickness	Elevation	GRO/]		Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(feet)	(feet msl)	ТРНg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	(μg/L)	(μg/L)
MW-3 Cont.																		
5/19/1992			87.02	15.52		71.50	# \$50	<0.5	<0.5	< 0.5	<0.5			SEQ				
7/22/1992			87.02	15.63		71.39	<50	<0.5	<0.5	<0.5	<0.5	_		ANA		<50	<5000	
8/14/1992			87.02	1357		73.45												
11/11/1992			87.02	14.13		72.89	<50	<0.5	0.7	<0.5	1.3			ANA				
6/7/1993			87.02	12.13		74.89	iii <50 iii	₹0:5	≮0.5	<0.5	<0.5			PACE				
12/2/1993			87.02	13.29		73.73	<50	<0.5	<0.5	<0.5	<0.5			PACE	-			——————————————————————————————————————
6/22/1994			87.02	12.78		74.24	250	∰<0,5	<0.5	<0.5	<0.5		20	PACE				
1/10/1995		*****************	87.02	12.01		75.01	<50	<0.5	<0.5	<0.5	<1		3.8	ATI			-	
6/21/1995			87.02	11.57		75:45	<50	<0.50	<0.50	<0.50	≤1.0		7.4	ATT				
12/27/1995		27074237774444444	87.02	13.47		73,55	<50	<0.50	<0.50	<0.50	<1.0	5.7	7.3	ATI	-		-	
6/13/1996			87.02	11,22		75.80	60	<0.5	≤0,5	≤0.5	150 <i>is</i>	#I <10	6.8	SPL				
12/4/1996			87.02	13.28		73.74	<50	<0.5	<1 	<1	<	<10	6.7	SPL			-	_
6/10/1997 12/12/1997			87.02	10.22		76.80	₹50	₹0.5	<1.0	\$1.0	<1.0	<10	6.1	SPL				
12/12/1997		c Newson	87.02 87.02	 [12,6]		74.41	<50 <50	<0.5 四四次四四	<1.0	<1.0 ************************************	<1.0	<10	 ###################################	SPL	- ::::::::::::::::::::::::::::::::::::		— 	
6/18/1998			87.02	12.80		調職協会計画画 74.22		₹0.5	<10	≤I.0	SI0	<10	56	SPL				
6/18/1998			87.02	9.07		77.95	50	 	- - 210	 	 <1.0	 	 	SPL			 11401111111111111	
9/28/1999			87.02	13.76		73.26												
3/27/2000			87.02	13 77		73 25	₹50	₹0.5	205	<0.5	<0.5	1.6		PACE				
9/28/2000			87,02	11.28	<u></u>	75.74	<50	<0.5	7.4	<0.5	1.3	Tilifininiiiilli 2		PACE				
3/8/2001			87.02	11,75		75 27	<50	<0.5	₩ 50.5 ₩	# 2 05	<0.5	60.4		PACE				
9/21/2001		17715-1477-1475-1475-1475-1475-1475-1475	87.02	11.33		75.69	<50	<0.5	<0.5	< 0.5	<1.5	8.18		PACE			######################################	111111111111111111111111111111111111111
2/28/2002			87.02	10.86		76.16	₹50	<0.5	1≤0/5	40.5	# < 1.0 #	25.5		PAGE			4	
9/6/2002	-		87.02	12.73	-	74.29	<50	1.2	<0.5	<0.5	1	16		SEQ				
2/19/2003		b	87.02	11.72		75.30	<500	≼5.0	<5.0	\$5.0	₹5.0	110		SEQ				
7/14/2003		** ****** ****************************	87.02	13,76		73.26	<50	<0.50	<0.50	<0.50	0.67	28		SEQ				
01/14/2004	P		87,02	14.83		72,19	550	<5.0	<5.0	\$5,0	<5.0	380		SEQM	8.1			
04/23/2004	P	1	87.02	13.17		73.85	<200	<25	<25	<25	<25	560	_	SEQM	6.8			
07/01/2004	P		87,02	15.19		71.83	\$30	<0.50	<0.50	<0.50	0.50	48		SEQM	6.4			
10/28/2004	P		87.02	15.50		71.52	<500	<5.0	<5.0	<5.0	<5.0	290		SEQM	6.3			
01/10/2005	l l		87,02	15.00		72.02	<50	<0,50	<0.50	<0.50	<0.50	18		SEQM	7.6			

<u> </u>			тос		Product	Water Level		С	oncentrati	ons in (μg/	L)]	DRO/		
Well and Sample Date	P/NP	Footnote	Elevation (feet msl)	DTW (feet bgs)	Thickness (feet)	Elevation (feet msl)	GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MtBE	DO (mg/L)	Lab	pН	TPHd (µg/L)	TOG (μg/L)	HVOC (μg/L)
MW-3 Cont.																		
04/13/2005	in i pere		87.02	14.34		72.68	<50 m	<0.50	<0.50	 <0.50	 <0.50	9.0		SEQM	7.1			
07/11/2005	P	k	87.02	10.82		76.20	130	<1.0	<1.0	(1.0 < 1.0	<1.0	120		SEQM	7.8			
10/17/2005	þ		87.02	11.84		75 18	250	25	2.5	<2,5	25 [260		SEQM	8.5			
01/17/2006	P		87.02	11.59		75.43	800	<5.0	<5.0	<5.0	<5.0	980		SEQM	7.2			
04/21/2006	P		87.02	10.00		77.02	<500	<5.0	<5.0	₹5.0	<5.0	48		SEQM	6.7			
7/17/2006	P	k	87.02	10.80		76.22	910	<5.0	<5.0	<5.0	<5.0	1,400		TAMC	7.7			
7/26/2006	#P##		87.02	9.67		77.35	810	\$10	<10	<10	<10	1,300		TAMC	6.56			
10/31/2006	P		87.02	10.85	 Indexes	76.17	1,600	<10	<10	<10	<10	2,300	2.50	TAMC	6.84			
1/8/2007			87.02	1273		74.29	520	⊪ <5.0	K5.0	\$5.0	₹5.0	760	3.61	TAMC	7.12			
4/10/2007	P	k	87.02	11.93		75.09	630	<5.0	<5.0	<5.0	<5.0	750	2.31	TAMC	7.15			
QC-2																		
11/11/1992		i g					iii i≼50	<0.5	50.5	# \$0.5 #	40.5	m-ŒW		ANA				
6/7/1993		g					<50	<0.5	<0.5	<0.5	<0.5			PACE			——————————————————————————————————————	
12/2/1993		g g					<50	<0.5	≤0.5	20.5	₹0.5			PACE				
6/22/1994		g					<50	<0.5	<0.5	<0.5	<0.5			PACE	-			
1/10/1995		B					<50	<0.5	<0.5	<0.5	1			ATI			-	
6/21/1995		g managananan					<50	<0.50	<0.50	<0.50	<1.0			ATI				
12/27/1995							₹50	<0.50	<0.50	<0.50	<1.0	<5.0		λTI				
6/13/1996		g					<50	<0.5	<0.5	<0.5	<0.5	<10		SPL				_

ABBREVIATIONS & SYMBOLS:

- --/-- = Not analyzed/applicable/measured/available
- < = Not detected at or above specified laboratory reporting limit

DO = Dissolved oxygen

DRO = Diesel range organics

DTW = Depth to water in ft bgs

ft bgs = feet below ground surface

ft MSL = feet above mean sea level

GRO = Gasoline range organics, range C4-C12

GWE = Groundwater elevation measured in ft MSL

HVOC = Halogenated volatile organic compounds

mg/L = Milligrams per liter

MTBE = Methyl tert-butyl ether

NP = Well not purged prior to sampling

P = Well purged prior to sampling

TOC = Top of casing measured in ft MSL

TOG = Total oil and grease

TPH-d = Total petroleum hydrocarbons as diesel

TPH-g = Total petroleum hydrocarbons as gasoline

μg/L = Micrograms per liter

ANA = Anametrix, Inc.

PACE = Pace, Inc.

ATI = Analytical Technologies, Inc.

SAL = Superior Analytical Laboratory

SPL = Southern Petroleum Laboratories

SEQ/SEQM = Sequoia Analytical/Sequoia Analytical - Morgan Hill (Laboratories)

FOOTNOTES:

- c = Blind duplicate.
- d = A copy of the documentation for this data is included in Appendix C of Alisto report 10-076-06-002.
- e = Tetrachloroethene
- f = trans-1,2-Dichloroethene
- g = Travel blank.
- h = TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE analyzed by EPA Method 8260B beginning on 1st quarter sampling event (2/19/03).
- k = The hydrocarbon result was partly due to individual peaks in the quantification range (GRO).
- I = GRO analyzed by EPA Method 8015B.
- m = Confirmatory analysis for total xylenes was past holding time.
- n = Well inaccessible.

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 pH and DO were obtained through field measurements.

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 #11102, 100 MacArthur Blvd., Oakland, CA

Well and			•	Concentration	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-1								The state of the s	
7/14/2003	2000	2,700	940	\$20	20	₹20			
01/14/2004	<1,000	2,500	220	< 5.0	<5.0	<5.0	<5.0	<5.0	үни минитичкан инжини метринен ини ини ини ини ини ини ини ини ини
04/23/2004	<500	2,500	150	<25	₹2.5	2 5	2.5	<2.5	
07/01/2004	<500	2,000	96	<2.5	<2.5	<2.5	<2.5	<2.5	Translated statementalismental
10/28/2004	₹5.0	1,500	43	<0.50	<0.50	0.58	<0.50	<0.50	
01/10/2005	<500	1,900	85	<2.5	<2.5	<2.5	<2.5	<2.5	
04/13/2005	₹500	1,400	48	<2.5	225	14427467477474141414141414	₹2.5 10.50	<2.5	
07/11/2005	<100 <100	550 450	36 20	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	
01/17/2006	<300	260	38	<0.50	<0.50	0.54	<0.50	<0.50	A CARACTER CONTROL CON
04/21/2006	300	320	17	<0.50	<0.50	<0.50	<0.50	₹0.50	
7/17/2006	<300	32	5.5	<0.50	<0.50	<0.50	<0.50	<0.50	
7/26/2006	300	22	144	<0.50	<0.50	<0.50	<0.50	<0.50	
10/31/2006	<300	<20	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	a
1/8/2007	<300	110	62	<0.50	<0.50	<0.50	<0.50	<0.50	
4/10/2007	<300	210	9.0	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2									
7/14/2003	\$100000	:<20000°	24,000	\$1000	<1000	<1000			
01/14/2004	<100,000	<20,000	21,000	<500	<500	<500	<500	<500	Tallonari successiva di mantina di
04/23/2004	<50,000	11,000	22,000	<250	250	420	<250	<250	
07/01/2004	<10,000	2,900	5,200	<50	<50	110	<50	<50	
10/28/2004	₹5,0	6,700	6,800	<50	\$50	120	<50	\$50	
01/10/2005	<50,000	<10,000	7,100 5,300	<250	<250	<250 95	<250	<250	
04/13/2005 07/11/2005	<10,000 <10,000	5,300 9,000	5,300 5,300	<50 <50	<50 <50	99	<50 <50	<50 <50	
10/17/2005	<10,000 ≤10,000	9,000 5,200	2,500	<50	<50 ≰50		<50 450		
01/17/2006	<30,000	8,400	2,200	<50	<50	<50	<50	<50	A STEANNACH AN THE
04/21/2006									Well inaccessible
7/26/2006	<30,000	4,500	2,900	<50	<50	<50	<50	<50	naenssuoseen en en eraaman kuntein taineen en il 1995 ja 1999 suustaksuut kassi (1995) josti
10/31/2006	≤15,000	9,300	2,300	25	₹25	41		≥25	ä
1/8/2007	<7,500	7700	1700	<12	<12	38	<12	<12	

Table 2. Summary of Fuel Additives Analytical Data Station #11102, 100 MacArthur Blvd., Oakland, CA

Well and				Concentration	ons in (μg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-2 Cont.									
4/10/2007	<30,000	6,400	1,500	≤50	<50	5 0	5 50	5 0	
MW-3									
7/14/2003	 - <100	<20	28	##3 21.0					
01/14/2004	<1,000	<200	380	<5.0	<5.0	<5.0	<5.0	<5.0	kinisia kasitas (a jako matas kod Histi pari titikki rahto kai isia ki tini kiru ai cena 224 pari 12 pari 12 p Tangan katas k
04/23/2004	<5,000	<1,000	560	25	- 325	225	<25	≤25	
07/01/2004	<100	<20	48	<0.50	<0.50	0,52	<0.50	<0.50	
10/28/2004	≤5.0	<200 iii	290	<5.0	<5.0	<5.0	≤5.0	<5,0	
01/10/2005	<100	<20	18	<0.50	<0.50	<0.50	<0.50	<0.50	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
04/13/2005	\$1 00	₹20	9.0	<0.50	<0.50	<0.50	<0,50	<0.50	
07/11/2005	<200	<40	120	<1.0	<1.0	1.4	<1.0	<1.0	a
10/17/2005	<500	₹100	260	<2.5	2.5	42	25	25	a de la companya de
01/17/2006	<3,000	200	980	<5.0	<5.0	13	<5.0	<5.0	Control of the Contro
04/21/2006	<3,000	₹200	48	<5.0	\$5.0	 <5.0	<5.0	<5,0	
7/17/2006	<3,000	<200	1,400	<5.0	<5.0	15	<5.0	<5.0	Consider Appeals have considered as a fine of the considered and an analysis of the considered as a fine of the co
7/26/2006	<6,000	4400	1,400	# <io< td=""><td><10</td><td>18</td><td></td><td>i Rio ii</td><td></td></io<>	<10	18		i Rio ii	
10/31/2006	<6,000	<400	2,300	<10	<10	39	<10	<10	a
1/8/2007	# 3000	€200	760	≤5.0	45.0	9.7	≤5;0	≤5,0	
4/10/2007	<3,000	<200	750	<5.0	<5.0	<5.0	<5.0	<5.0	(LEAV)

SYMBOLS & ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

< = 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 = The calibration verification for ethanol was within the method limits but outside the contract limits.

NOTES:

All volatile organic compounds were 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 #11102, 100 MacArthur Blvd., Oakland, CA

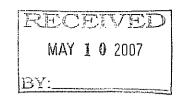
Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
4/21/2006		
7/17/2006 10/31/2006	Southwest Southwest	0.05
7/8/2007 4/10/2007	West West	0.06

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

APPENDIX A

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





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

May 2, 2007

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

Re:

Groundwater Sampling Data Package, BP Service Station No. 11102, located at 100 MacArthur Blvd., Oakland, California (Quarterly Monitoring performed on

April 10, 2007)

General Information

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

Phone Number: (530) 676-6000

On-Site Supplier Representative: Jerry Gonzales

Date: April 10, 2007

Arrival: 09:00 Departure: 11:30

Weather Conditions: Clear Unusual Field Conditions: None

Scope of Work Performed: Quarterly monitoring and sampling

Variations from Work Scope: Wells MW-2 and MW-3 purged dry before three casing volumes

were removed.

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 ENVIRONMENTALING

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-**PURGEWATER** FROM **HAZARDOUS** RECOVERED GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGEWATER WHICH HAS BEEN GROUNDWATER RECOVERED FROM 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:

11102	
Station #	
0.11-1 100 M 4-1 Pl. 1	
Oakland – 100 MacArthur Blvd.	
Station Address	
Total Gallons Collected From Gro	oundwater Monitoring Wells:
101	
101	
Added Equipment	Any Other
Rinse Water 5	Adjustments
TOTAL GALS. RECOVERED 106	loaded onto Stratus vehicle #
Stratus Project #	time date
	1145 4110107
Signature Jerry	<u> </u>
******	*****
RECEIVED AT	time date
BP 5786	1845 4110107
Unloaded by Signature JeMy	

BP ALAMEDA PORTFOLIO

HYDROLOGIC DATA SHEET

AR-900 -1130

Gauge Date: 4/0 0 7

Project Name: Oakland - 100 MacArthur Blvd.

Field Technician:

Project Number: 11102

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			MEASU	REMENT			PURGE & SAMPLE	SHEEN CONFIRMATION	COMMENTS
		тос	DTP	DTW	DTB	DIA	ELEV		(w/bailer)	
peus-1	9:21			1065	31.90	411				
Mr. F	9:18			[0.65] 11 45	32.70	411				
MM-B MM-B	945			11:93	32.50	4"				
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BP ALAMEDA PORTFOLIO WATER SAMPLE FIELD DATA SHEET PURGED BY: UC WELL I.D.: MU-/ PROJECT #: 11102 SAMPLE I.D.: May SAMPLED BY: CLIENT NAME: LOCATION: Oakland - 100 MacArthur Blvd. QA SAMPLES: DATE PURGED START (2400hr) END (2400hr) DATE SAMPLED SAMPLE TIME (2400hr) Treatment Effluent SAMPLE TYPE: Groundwater Surface Water CASING DIAMETER: Other Casing Volume: (gallons per foot) (0.17)(0.38)(1.02) DEPTH TO BOTTOM (feet) = CASING VOLUME (gal) = <u>10 - 65</u> DEPTH TO WATER (feet) = CALCULATED PURGE (gal) = 212 WATER COLUMN HEIGHT (feet) = ACTUAL PURGE (gal) = FIELD MEASUREMENTS DATE TIME VOLUME TEMP. CONDUCTIVITY COLOR TURBIDITY (gal) (degrees F) (umhos/cm) (units) (visual) (NTU) てん て SAMPLE INFORMATION SAMPLE DEPTH TO WATER: 1/10 4 SAMPLE TURBIDITY: 80% RECHARGE: YES ____ ANALYSES: See work order ODOR: NO SAMPLE VESSEL/PRESERVATIVE: 3 Vaa-14cc PURGING EOUIPMENT SAMPLING EQUIPMENT Bladder Pump Bailer (Teflon) Bladder Pump Bailer (Teflon) Centrifugal Pump Bailer (PVC) Centrifugal Pump Bailer (PVC or \(\square\) disposable) Submersible Pump Bailer (Stainless Steel) Submersible Pump Bailer (Stainless Steel) Peristalic Pump Dedicated Peristalic Pump Dedicated Other: _ Other: Pump Depth: WELL INTEGRITY: SIGNATURE: Page

BP ALAMEDA PORTFOLIO WATER SAMPLE FIELD DATA SHEET WELL I.D.: MW- Z PURGED BY: 11102 PROJECT #: SAMPLE I.D.: MW- Z SAMPLED BY: CLIENT NAME: Oakland - 100 MacArthur Blvd. OA SAMPLES: LOCATION: DATE PURGED 4-10-07 START (2400hr) / 0:08 END (2400hr) 10-13 SAMPLE TIME (2400hr) DATE SAMPLED Groundwater x Treatment Effluent SAMPLE TYPE: Surface Water Other CASING DIAMETER: Other Casing Volume: (gallons per foot) (0.17)(0.38) (2.60) 72.20 DEPTH TO BOTTOM (feet) = CASING VOLUME (gal) = CALCULATED PURGE (gal) = DEPTH TO WATER (feet) = 20. WATER COLUMN HEIGHT (feet) = ACTUAL PURGE (gal) = FIELD MEASUREMENTS COLOR DATE TIME VOLUME TEMP. CONDUCTIVITY pΗ TURBIDITY (2400hr) (gal) (degrees F) (umhos/cm) (units) (visual) (NTU) 4-10-07 C/200 SAMPLE INFORMATION SAMPLE DEPTH TO WATER: 20.93 SAMPLE TURBIDITY: C/Com ANALYSES: 5-ce work ordu 80% RECHARGE: YES X NO ODOR: NO SAMPLE VESSEL/PRESERVATIVE: 3 VOA - 14 CC PURGING EQUIPMENT SAMPLING EOUIPMENT Bladder Pump Bailer (Teflon) Bladder Pump Bailer (Teflon) Bailer (_____PVC or ____ disposable) Centrifugal Pump Bailer (PVC) Centrifugal Pump Bailer (Stainless Steel) Submersible Pump Bailer (Stainless Steel) Submersible Pump Peristalic Pump Dedicated Peristalic Pump Dedicated Other: Other: Pump Depth: 30 SIGNATURE: Page

В	P ALAMEDA PO	RTFOLIO		
WA	FER SAMPLE FIELI	DATA SHEET		
	PURGED BY: C		LL I.D.: MPLE I.D.: SAMPLES:	<i>u</i> 3
	START (2400hr) 25 SAMPLE TIME (2400hr) Surface Water	ENI /0:50 Treatment Effluent	O(2400hr) 9	35
CASING DIAMETER: 2" (0.17)	3" (0.38) 4" (0.67)	5" 6" (1.5)	0) 8" (2.60)	Other ()
DEPTH TO BOTTOM (feet) = 32.3 DEPTH TO WATER (feet) = //- WATER COLUMN HEIGHT (feet) = 20.	73	CASING VOLUME (gr CALCULATED PURG ACTUAL PURGE (gal)	E (gal) =	6 0.8
	FIELD MEASUREN	MENTS		
DATE TIME VOLUME (2400hr) (gal) / 3. 6 / 7:35 / 27-3		CTIVITY pH (units) 7.19 7.15	COLOR (visual) Clocede Clocur	TURBIDITY (NTU) Pump Dree
SAMPLE DEPTH TO WATER: 24.38	SAMPLE INFORMA		JRBIDITY: <u>_</u>	'ee
	ANALYSES: C			
PURGING EQUIPMENT Bladder Pump Bailer (Tefl Centrifugal Pump Bailer (Stain Peristalic Pump Dedicated Other: Pump Depth: 32	C)	Bladder Pump Centrifugal Pump Submersible Pump Peristalic Pump	EQUIPMENT Bailer (Teflon) Bailer (PVC Bailer (Stainless Steet Dedicated	C or <u>x</u> disposable)
WELL INTEGRITY: Sol REMARKS: DO 23/ Stow-Recharge		LOCK#:	Mas Te.	Page of

Wellhead Observation Form

Account:	11102		
Sampled by:	Jerry	Date:_	4-10-07

Well ID	Box in good condition	Lock Missing (Replaced with new)	Water in Box	Bolts Missing	Bolts Stripped	Bolt-Holes Stripped	Cracked or Broken Lid	Cracked Box and/or Bolt - Holes	Misc.	Add'l Notes and Other Stuff
MW-2 MW-3	4	~	V	~	N	N	N	N		
MW-2	4	N	N	~	~	N,	~,	~	· <u>-</u>	
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Atlantic Richfield
Company
A BP affiliated company

Chain of Custody Record

Project Name: ARCO 11102 BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 11102

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

	-
On-site Time: 9:00	Temp: 6 Z
Off-site Time: //3.30	Temp: 6 5
Sky Conditions: Clear	
Meteorological Events: NowC	
Wind Speed: کے	Direction: N

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	lame: TestAmerica						\dashv	BP/AR Facility No			1102											ant/Co				Stratus Environ		····
	ess: 885 Jarvis Drive		· · · · · · · · · · · · · · · · · · ·					BP/AR Facility Ad	dres:	9:	10	0 M	lacArt	hur B	lvd.,	Oakl	and			Add	iress					ron Park Drive,	Suite 550	
Morg	an Hill, CA 95937							Site Lat/Long:												_						ark, CA 95682		
	M: Lisa Race							California Global II	D N	o.:			1009													ect No.: E1110		
Tele/	Fax: 408-782-8156 408-782-6	308 (fax)						Enfos Project No.:			G	97T	9-003	2						Con	sult	int/Co	<u></u>					1-1/2 V
BP/A	R PM Contact: Paul Supple					_		Provision or OOC	(circ	le o	ne)		Pr	ovisio	п						/Fax					5000 / (530) 676		
Addr	ess: 2010 Crow Canyon Place, S	uite 150						Phase/WBS:		04	Mo	iitor	ring.									уре &					with EDF	
	San Ramon, CA						أينشر	Sub Phase/Task:		0.3	Ana	lyti	CAL							┩—						s@stratusinc.n	<u> </u>	
Tele/	Pax: 925-275-3506							Cost Element:		01	Con	trac	tor lal	юг									antic	c Ric	hfic	old Co.		31.0
Lab	Bottle Order No:				Ma	trix						Pre	serva	tive					Reque	ited A	nal	ysis						1 m
Item Nu.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air		Láboratory No.	No. of Containers	==	H-SO.	ONL	HOU,	Methanol		GRO/BTEX/Oxy*	1,2-DCA	Ethanol	EDB	DRO							int Lat/Long omments TAME, ET TBA	
⊊1- ³	MW-1	4/10/07	10,00	,	Х				3				Х			X	х	Х	Х		<u> </u>			:				The Market
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3	MW-3		10:50		х	6 ii - ii - ii			6			T	x			х	x	х	X									
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Sant	oler's Name: Jerry 6.	NZUle	1	-			╗	Reling	ulahe	ed B	y / A	Tilia	tion			П	ete		Time			A	ccept	ed B	y Į A	Affiliation	Date	Time
	oler's Company: Do u/o						┪	Men								4	1.3	11	16			M	11	1.4	17	772-SMC	- 4-160	1210
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Ship	ment Tracking No:																											
Spec	at Instructions;	Please	co resu	lts to	rmi	ller@	a)br	oadbentine.com																				
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<u> </u>	Custody Scals In Place: Y	es / No	L6	emp.	piar	IK: Y	C5 /	/ No Coole	31 I 6	emp	on i	KEC	cipt:		"F/	<u></u>		TLID	Diank: I	CS / I	UP		IAIS	MINIC	י ענ	ampie adomine	u. 165/NO	<u> </u>



26 April, 2007

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

RE: BP Heritage #11102, Oakland, CA

Work Order: MQD0556

Enclosed are the results of analyses for samples received by the laboratory on 04/11/07 19:10. 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: BP Heritage #11102, Oakland, CA MQD0556
3330 Cameron Park Dr., Suite 550 Project Number: G07T9-0032 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 04/26/07 15:07

ANALYTICAL REPORT FOR SAMPLES

Sample 1D	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MQD0556-01	Water	04/10/07 10:00	04/11/07 19:10
MW-2	MQD0556-02	Water	04/10/07 11:15	04/11/07 19:10
MW-3	MQD0556-03	Water	04/10/07 10:50	04/11/07 19:10
TB 11102	MQD0556-04	Water	04/10/07 05:00	04/11/07 19:10

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies. These samples were received with no custody seals.





Surrogate: 1,2-Dichloroethane-d4

Project: BP Heritage #11102, Oakland, CA

Project Number: G07T9-0032 Project Manager: Jay Johnson MQD0556 Reported: 04/26/07 15:07

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 (MQD0556-01) Water Sampled	04/10/07 10:00	Received:	04/11/07	7 19:10					
Gasoline Range Organics (C4-C12)	160	50	ug/l	1	7D20007	04/20/07	04/20/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		94 %	60-	125	11	11	"	"	<u> </u>
MW-2 (MQD0556-02) Water Sampled	: 04/10/07 11:15	Received:	04/11/07	7 19:10					
Gasoline Range Organics (C4-C12)	1300	250	ug/l	5	7D23032	04/23/07	04/24/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		102 %	60-	125	n	n	11	"	
MW-3 (MQD0556-03) Water Sampled	: 04/10/07 10:50	Received:	04/11/07	7 19:10					
Gasoline Range Organics (C4-C12)	630	250	ug/l	5	7D23032	04/23/07	04/24/07	LUFT GCMS	PV

60-125

102 %





Project: BP Heritage #11102, Oakland, CA

Project Number: G07T9-0032 Project Manager: Jay Johnson MQD0556 Reported: 04/26/07 15:07

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-1 (MQD0556-01) Water	Sampled: 04/10/07 10:00	Received:	04/11/0	7 19:10					
tert-Amyl methyl ether	ND	0.50	ug/l	1	7D20007	04/20/07	04/20/07	EPA 8260B	
Benzene	1.4	0.50	U	J¢	И	0	*1	U	
tert-Butyl alcohol	210	20	"	и	и	0	*I	I)	
Di-isopropyl ether	ND	0.50	19	#1	#1	ı)	п	и	
1,2-Dibromoethane (EDB)	ND	0.50	lt .	ri .	**	H	U	и	
1,2-Dichloroethane	ND	0.50		a	ti	l+	II	If	
Ethanol	ND	300	н	U	u	It	19	И	
Ethyl tert-butyl ether	ND	0.50	u	O O	0	ıı	19	н	
Ethylbenzene	ND	0.50)1	O	ti	п	19	н	
Methyl tert-butyl ether	9.0	0.50	н	n	II .	Л	19	h	
Toluene	ND	0.50	H	U	U	Л	14	н	
Xylenes (total)	ND	0.50	Ħ	Ħ	п	п	10	If	
Surrogate: Dibromofluoromethan	10	97 %	<i>75</i> -	120	**	"	"	"	
Surrogate: 1,2-Dichloroethane-d	4	94 %	60-	-125	н	11	"	tt	
Surrogate: Toluene-d8		96 %	80-	120	n	"	"	"	
Surrogate: 4-Bromofluorobenzen	e	98 %	60-	135	n	"	"	rr	
MW-2 (MQD0556-02) Water	Sampled: 04/10/07 11:15	Received:	04/11/0	7 19:10					
tert-Amyl methyl ether	ND	50	ug/l	100	7D20007	04/20/07	04/20/07	EPA 8260B	
Benzene	ND	50	n	It	Ð	Ħ	п	п	
tert-Butyl alcohol	6400	2000	"	н	D	U	н	11	
Di-isopropyl ether	ND	50	0	H	H	tt	*1	"	
1,2-Dibromoethane (EDB)	ND	50	0	и	If	IJ	n	4	
1,2-Dichloroethane	ND	50	0	Ħ	P	п	O .	ti	
Ethanol	ND	30000	n	*1	Ħ	IJ	u	ti	
Ethyl tert-butyl ether	ND	50	I†	н	11	n	U	u	
Ethylbenzene	ND	50	n	Ħ	#	19	u	ri .	
Methyl tert-butyl ether	1500	50	Ħ	u	#	19	II .	а	
Toluene	ND	50	п	и	#1	19	O O	a	
Xylenes (total)	ND	50	It	п	a	H	II.	(I	
Surrogate: Dibromofluoromethan	ne .	94 %	75-	120	11	"	"	н	
Surrogate: 1,2-Dichloroethane-d-	4	93 %	60-	125	н	11	n	,,	
Surrogate: Toluene-d8		93 %	80-	120	"	17	"	n	
Surrogate: 4-Bromofluorobenzen	e	91%	60-	135	n	"	"	n	





Project: BP Heritage #11102, Oakland, CA

Project Number: G07T9-0032 Project Manager: Jay Johnson MQD0556 Reported: 04/26/07 15:07

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-3 (MQD0556-03) Water 5	Sampled: 04/10/07 10:50	Received:	04/11/07	7 19:10					
tert-Amyl methyl ether	ND	5.0	ug/l	10	7D20036	04/20/07	04/21/07	EPA 8260B	
Benzene	ND	5.0	0	h	I†	Iŧ .	#	a	
tert-Butyl alcohol	ND	200	0	Ħ	I)	It	41	u	
Di-isopropyl ether	ND	5.0	11	71	H	lt	ŋ	U	
1,2-Dibromoethane (EDB)	ND	5.0	1+	et e	И	н	n	o o	
1,2-Dichloroethane	ND	5.0	It	11	И	н	n	U	
Ethanol	ND	3000	II	Ű	И	н	n	ø	
Ethyl tert-butyl ether	ND	5.0	jr .	ti ti	н	Ħ	n	ø	
Ethylbenzene	ND	5.0	,,	U	#	Ħ	11	U	
Methyl tert-butyl ether	750	5.0	и	ti	41	(I	D .	0	
Toluene	ND	5.0)1	0	41	ti	n	U	
Xylenes (total)	ND	5.0	И	tt	п	tt	n,	U	
Surrogate: Dibromofluoromethan	e	99 %	75-	120	"	11	"	"	
Surrogate: 1,2-Dichloroethane-d4	!	100 %	60-	125	11	31	"	n	
Surrogate: Toluene-d8		96 %	80-	120	11	n	**	n	
Surrogate: 4-Bromofluorobenzene	!	94%	60-	135	n	"	n	n	





Project: BP Heritage #11102, Oakland, CA

Project Number: G07T9-0032 Project Manager: Jay Johnson MQD0556 Reported: 04/26/07 15:07

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7D20007 - EPA 5030B P/T / LU	UFT GCMS									
Blank (7D20007-BLK1)				Prepared	& Analyze	ed: 04/20/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l	· · · · · · · · · · · · · · · · · · ·						
Surrogate: 1,2-Dichloroethane-d4	1.94		H	2.50		78	60-125		***************************************	
Laboratory Control Sample (7D20007-BS	S2)			Prepared	& Analyze	ed: 04/20/	07			
Gasoline Range Organics (C4-C12)	466	50	ug/l	500	-	93	65-120			
Surrogate: 1,2-Dichloroethane-d4	2.04		rt	2.50	~~	82	60-125	***************************************		
Laboratory Control Sample Dup (7D2000)7-BSD2)			Prepared a	& Analyze	:d: 04/20/	07			
Gasoline Range Organics (C4-C12)	438	50	ug/l	500		88	65-120	6	20	
Surrogate: 1,2-Dichloroethane-d4	2,02		"	2.50		81	60-125			
Batch 7D23032 - EPA 5030B P/T / LU	JFT GCMS									
Blank (7D23032-BLK1)				Prepared o	& Analyze	d: 04/23/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l	-			·····			
Surrogate: 1,2-Dichloroethane-d4	2.33	***************************************	"	2.50		93	60-125			
Laboratory Control Sample (7D23032-BS	52)			Prepared o	& Analyze	:d: 04/23/	07			
Gasoline Range Organics (C4-C12)	394	50	ug/l	500	······································	79	65-120			
Surrogate: 1,2-Dichloroethane-d4	2.51		"	2.50		100	60-125			•
Laboratory Control Sample Dup (7D2303	32-BSD2)			Prepared o	& Analyze	:d: 04/23/0	07			
Gasoline Range Organics (C4-C12)	395	50	ug/l	500		79	65-120	0.3	20	
Surrogate: 1,2-Dichloroethane-d4	2.41		ıt	2.50		96	60-125			





Project: BP Heritage #11102, Oakland, CA

Spike

Source

%REC

Project Number: G07T9-0032 Project Manager: Jay Johnson MQD0556 Reported: 04/26/07 15:07

RPD

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes		
Batch 7D20007 - EPA 5030B P/T /	EPA 8260B								•			
Blank (7D20007-BLK1)				Prepared	& Analyza	:d: 04/20/0)7					
tert-Amyl methyl ether	ND	0.50	ug/l									
Benzene	ND	0.50	P									
tert-Butyl alcohol	ND	20	и									
Di-isopropyl ether	ND	0.50	ţ1									
1,2-Dibromoethane (EDB)	ND	0.50	(I									
1,2-Dichloroethane	ND	0.50	"									
Ethanol	מא	300	Ø									
Ethyl tert-butyl ether	ND	0.50	H									
Ethylbenzene	ND	0.50	R									
Methyl tert-butyl ether	ND	0.50	H									
l'oluene	ND	0.50	H									
Xylenes (total)	ND	0.50	н									
Surrogate: Dibromofluoromethane	2.08		11	2.50		83	75-120					
Surrogate: 1,2-Dichloroethane-d4	1.94		II	2.50		78	60-125					
Surrogate: Toluene-d8	2.30		11	2.50		92	80-120					
Surrogate: 4-Bromofluorobenzene	2.14		"	2.50		86	60-135					
Laboratory Control Sample (7D20007	-BS1)	Prepared & Analyzed: 04/20/07										
tert-Amyl methyl ether	8.66	0.50	ug/l	10.0		87	65-135					
Benzene	9.33	0.50	Ħ	10.0		93	75-120					
ert-Butyl alcohol	205	20	ti	200		102	60-135					
Di-isopropyl ether	8.37	0.50	17	10.0		84	70-130					
1,2-Dibromoethane (EDB)	9.18	0.50	"	10.0		92	80-135					
1,2-Dichloroethane	8.42	0.50	U	10.0		84	70-125					
Ethanol	232	300	0	200		116	15-150					
Ethyl tert-butyl ether	8.49	0.50	11	10.0		85	65-130					
Ethylbenzene	10.9	0.50	ŧŧ	10.0		109	75-120					
Methyl tert-butyl ether	8.44	0.50	If	10.0		84	50-140					
Toluene	9.76	0.50	If	10.0		98	75-120					
Xylenes (total)	32.1	0.50	н	30.0		107	75-120					
Surrogate: Dibromofluoromethane	2.16		rr	2.50		86	75-120					
Surrogate: 1,2-Dichloroethane-d4	2.09		"	2.50		84	60-125					
Surrogate: Toluene-d8	2.37		17	2.50		95	80-120					
Surrogate: 4-Bromofluorobenzene	2.26		ır	2,50		90	60-135					





Project: BP Heritage #11102, Oakland, CA

Project Number: G07T9-0032 Project Manager: Jay Johnson

MQD0556 Reported: 04/26/07 15:07

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 Límit	Notes
Batch 7D20007 - EPA 5030B P/T / E	CPA 8260B									
Matrix Spike (7D20007-MS1)	Source: M	Source: MQD0527-04 Prepared & Analyzed: 04/20/07								
tert-Amyl methyl ether	11.2	0.50	ug/l	10.0	ND	112	65-135	***************************************	***************************************	
Benzene	9.99	0.50	н	10.0	ND	100	75-120			
tert-Butyl alcohol	208	20	н	200	ND	104	60-135			
Di-isopropyl ether	10.2	0.50	п	10.0	ND	102	70-130			
1,2-Dibromoethane (EDB)	11.2	0.50	11	10.0	ND	112	80-135			
1,2-Dichloroethane	10.3	0.50	11	0,01	ND	103	70-125			
Ethanol	224	300	*1	200	ND	112	15-150			
Ethyl tert-butyl ether	10.5	0.50	#1	0.01	ND	105	65-130			
Ethylbenzene	10.6	0.50	*1	10.0	ND	106	75-120			
Methyl tert-butyl ether	10.7	0.50	*1	10.0	ND	107	50-140			
Toluene	10.4	0.50	*1	10.0	ND	104	75-120			
Xylenes (total)	31.6	0.50	#1	30.0	ND	105	75-120			
Surrogate: Dibromofluoromethane	2.36	***************************************	11	2.50		94	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.41		11	2.50		96	60-125			
Surrogate: Toluene-d8	2.39		"	2.50		96	80-120			
Surrogate: 4-Bromofluorobenzene	2.50		"	2.50		100	60-135			
Matrix Spike Dup (7D20007-MSD1)	Source: M	QD0527-04		Prepared & Analyzed: 04/20/07						
tert-Amyl methyl ether	11.2	0.50	ug/l	10.0	ND	112	65-135	0	25	
Benzene	10.2	0.50	ti	10.0	ND	102	75-120	2	20	
ert-Butyl alcohol	213	20	*1	200	ND	106	60-135	2	25	
Di-isopropyl ether	10.4	0,50	ti	10.0	ND	104	70-130	2	25	
1,2-Dibromoethane (EDB)	11.1	0.50	ti	10.0	ND	111	80-135	0.9	30	
1,2-Dichloroethane	10.4	0.50	n	10.0	ND	104	70-125	1	25	
Ethanol	229	300	ū	200	ND	114	15-150	2	25	
Ethyl tert-butyl ether	10.7	0.50	O	10.0	ND	107	65-130	2	25	
Ethylbenzene	10.8	0.50	н	10.0	ND	108	75-120	2	20	
Methyl tert-butyl ether	10.8	0.50	U	10.0	ND	108	50-140	0.9	25	
Гоішеле	10.4	0.50	n	10.0	ND	104	75-120	0	25	
Xylenes (total)	32.2	0.50	U	30.0	ND	107	75-120	2	20	
Surrogate: Dibromofluoromethane	2,36		n	2.50		94	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.48		"	2.50		99	60-125			
Surrogate: Toluene-d8	2.42		n	2.50		97	80-120			
Surrogate: 4-Bromofluorobenzene	2.41		11	2.50		96	60-135			





Project: BP Heritage #11102, Oakland, CA

Spike

Source

MQD0556 Project Number: G07T9-0032 Reported:

%REC

Project Manager: Jay Johnson

Reporting

04/26/07 15:07

RPD

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

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7D20036 - EPA 5030B P/T /	EPA 8260B									
Blank (7D20036-BLK1)				Prepared a	& Analyza	:d: 04/20/0	07			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	11							
tert-Butyl alcohol	ND	20	*1							
Di-isopropyl ether	ND	0.50	n							
1,2-Dibromoethane (EDB)	ND	0.50	II							
1,2-Dichloroethane	ND	0.50	ŋ							
Ethanol	ND	300	0							
Ethyl tert-butyl ether	ND	0.50	n							
Ethylbenzene	ND	0.50	n							
Methyl tert-butyl ether	ND	0.50	U							
Toluene	ND	0.50	U							
Xylenes (total)	ND	0,50	1+							
Surrogate: Dibromofluoromethane	2.46		"	2,50		98	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.50		Ħ	2.50		100	60-125			
Surrogate: Toluene-d8	2.47		rt	2.50		99	80-120			
Surrogate: 4-Bromofluorobenzene	2.50		"	2.50		100	60-135			
Laboratory Control Sample (7D20036	-BS1)	Prepared a	& Analyze	d: 04/20/0)7					
tert-Amyl methyl ether	10.9	0.50	ug/l	0.01		109	65-135			
Benzene	10.6	0.50	н	10,0		106	75-120			
tert-Butyl alcohol	199	20	a	200		100	60-135			
Di-isopropyl ether	10.6	0.50	u	10.0		106	70-130			
1,2-Dibromoethane (EDB)	11.3	0.50	"	10.0		113	80-135			
1,2-Dichloroethane	10.8	0.50	U	10.0		108	70-125			
Ethanol	215	300	U	200		108	15-150			
Ethyl tert-butyl ether	10.7	0.50	17	10.0		107	65-130			
Ethylbenzene	11.0	0.50	19	10.0		110	75-120			
Methyl tert-butyl ether	10.7	0.50	19	10.0		107	50-140			
Toluene	11.1	0.50	17	10.0		111	75-120			
Xylenes (total)	34.1	0.50	D	30.0		114	75-120			
Surrogate: Dibromofluoromethane	2.53		H	2.50		101	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.48		"	2.50		99	60-125			
Surrogate: Toluene-d8	2.47		"	2.50		99	80-120			
Surrogate: 4-Bromofluorobenzene	2.51		#	2.50		100	60-135			





Project: BP Heritage #11102, Oakland, CA

Project Number: G07T9-0032 Project Manager: Jay Johnson MQD0556 Reported: 04/26/07 15:07

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 7D20036 - EPA 5030B P/T / E	PA 8260B														
Matrix Spike (7D20036-MS1)	Source: M	QD0590-01		Prepared	& Analyze	d: 04/20/	07								
ert-Amyl methyl ether	12.8	0.50	ug/l	10,0	ND	128	65-135								
Benzene	11.6	0.50	п	10.0	ND	116	75-120								
ert-Butyl alcohol	215	20	и	200	ND	108	60-135								
Di-isopropyl ether	12.0	0.50	μ	10.0	ND	120	70-130								
I,2-Dibromoethane (EDB)	12.5	0.50	ıı	10.0	ND	125	80-135								
1,2-Dichloroethane	12.2	0.50	и	10.0	ND	122	70-125								
Ethanol	217	300	и	200	ND	108	15-150								
Ethyl tert-butyl ether	12.2	0.50	11	10.0	ND	122	65-130								
Ethylbenzene	11.8	0.50	41	10.0	ND	118	75-120								
Methyl tert-butyl ether	13.4	0.50	tı	10.0	1.2	122	50-140								
Toluene	12.0	0.50	ü	10.0	ND	120	75-120								
Xylenes (total)	36.7	0.50	U	30.0	ND	122	75-120			LN					
Surrogate: Dibromofluoromethane	2.51		н	2.50		100	75-120								
Surrogate: 1,2-Dichloroethane-d4	2.53		н	2.50		101	60-125								
Surrogate: Toluene-d8	2.49		"	2.50		100	80-120								
Surrogate: 4-Bromofluorobenzene	2.64		"	2.50		106	60-135								
Matrix Spike Dup (7D20036-MSD1)	Source: M	QD0590-01		Prepared	& Analyze	:d: 04/20/0									
ert-Amyl methyl ether	12.4	0.50	ug/l	10,0	ND	124	65-135	3	25						
Benzene	11.6	0.50	R	10.0	ND	116	75-120	0	20						
ert-Butyl alcohol	227	20	И	200	ND	114	60-135	5	25						
Di-isopropyl ether	12.0	0.50	п	10.0	ND	120	70-130	0	25						
,2-Dibromoethane (EDB)	13.1	0.50	It	10,0	ND	131	80-135	5	30						
,2-Dichloroethane	12,2	0.50	и	10.0	ND	122	70-125	0	25						
Ethanol	218	300	If	200	ND	109	15-150	0.5	25						
Ethyl tert-butyl ether	12.1	0.50	10	10.0	ND	121	65-130	0.8	25						
Ethylbenzene	12.0	0.50	н	10.0	ND	120	75-120	2	20						
Methyl tert-butyl ether	13.5	0.50	11	10.0	1.2	123	50-140	0.7	25						
l'oluene e	11.9	0.50	и	10.0	ND	119	75-120	0.8	25						
Kylenes (total)	37.5	0.50	H	30.0	ND	1 2 5	75-120	2	20	LN					
Surrogate: Dibromofluoromethane	2.52	***************************************	II	2.50	······································	101	75-120								
Surrogate: 1,2-Dichloroethane-d4	2.59		"	2.50		104	60-125								
Surrogate: Toluene-d8	2.46		"	2.50		98	80-120								
Surrogate: 4-Bromofluorobenzene	2,62		11	2.50		105	60-135								





Stratus Environmental Inc. [Arco] Project: BP Heritage #11102, Oakland, CA MQD0556
3330 Cameron Park Dr., Suite 550 Project Number: G07T9-0032 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 04/26/07 15:07

Notes and Definitions

PV Hydrocarbon result partly due to individ. peak(s) in quant. range

LM MS and/or MSD above acceptance limits. See Blank Spike(LCS).

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

Atlantic Richfield
Company
A BP affiliated company

Chain of Custody Record

Project Name: ARCO 11102
BP.BU/AR Region/Enfos Segment:

State or Lead Regulatory Agency:

BP > Americas > West > Retail > Alameda > 11102

Requested Due Date (mm/dd/yy):

-	Page 1 of 1
On-site Time: 9:00	Temp: 6 7_
Off-site Time: //ょうつ	Temp: 6 5
Sky Conditions: 6/eas	
Meteorological Events:	
Wind Speed: 45	Direction: N

Lab ì	Name: TestAmerica						BP/AR Facility No.: 11102							Cons	Consultant/Contractor: Stratus Environmental, Inc.														
Addr	ess: 885 Jarvis Drive						В	3P/AR Facility Add	iress	:	100	Mac	Arth	ır Bi	vd. (Dakla	ind			Add	ess:		3330) Ca	mer	ron Park Drive, Suit	ie 550		
Morg	gan Hill, CA 95937						S	ite Lat/Long:												Cameron Park, CA 95682									
l	PM: Lisa Race					_		alifornia Global II) No	•	T06	0010	0908							Consultant/Contractor Project No.: E11102-04									
	Fax: 408-782-8156 408-782-630	8 (fax)				<u> </u>	_E	infos Project No.:			G07	T9-0	032							Cons	Consultant/Contractor PM: Jay Johnson								
	R PM Contact: Paul Supple						Pı	Provision or OOC (circle one) Provision									Tele/Fax; (530) 676-6000 / (530) 676-6005												
Addr	ess: 2010 Crow Canyon Place, Suit	c 150				_ _	PI	hase/WBS:		04-1	⁄loni	toring	3	·····							rt Ty					Level i wi	th EDF		
<u> </u>	San Ramon, CA					_		ub Phase/Task:		03-4														_		@stratusinc.net			
	Fax: 925-275-3506					L		Cost Element:		01-0						·				4			antic	Ric	hfiel	ld Co.			
Lab	Bottle Order No:		نيجي فسيصم	<u> </u>	Mat	trix	╝				P	reser	vati	ye		L.		,	Reques	ted A	nalys	9							
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air		Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HINO ₃	HCI	Methanol		GRO/BTEX/Oxy*	1,2-DCA	Ethanol	EDB	DRO						Sample Point Come Oxy* = MTBE, TA TB	nents ME, ETE		
1	MW-1	4/10/07	10:00		х	\top	T	(ji	3				х			x	х	х	х			П							
2	MW-2	1	11:15	11-	х	\neg	1	<u>U2</u>	3				х		-		-	х	X		\neg	\top	\top			<u></u>			
3	MW-3		10:50	11-	х		1	03	6				Х				х	х	Х			寸				,			
4	TB 11102 -	1	500		х			04	2				X			X	х	x	Х							HOLD	HOLD		
5																													
6					П		╁															7		T					
7	-						┰										Γ				_	7	\top				···		
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9																						1	\top				******		
10							I						·																
Sam	pler's Name: Jerry 6-~	24/2	1				I	Relinqu	iishe	d By	/ Affi	liatio	ŋ			D:	ate		Time			Ac	cepte	d B	, ΄, Α	ffiliation	Date	Time	
	pler's Company: Do 4105							Macan								44	ر اندا	12	16		7.0	01	11	1	27	872-8AC	4-160	1210	
Shipment Date:					7	Oken	16	1	5	12	~5	A	_	Ú.	/s7	10	o Ho			S,	to		20		4/11/07	1610			
Ship	ment Method:							ON TH	10							4/11	107	79	/b			6	PA.	ρu	1		111/02		
Shipment Tracking No:																									1				
Spec	Special Instructions: Please cc results to rmiller@broadbentinc.com																												
	Custody Seals In Place: Yes	1675	1 T.	i	Dla-	k:(Ye	2)/2	No Coole	. Ta		- P	000:	T	-XX	°E/	~~	F	Tain	Blank:(Y				ME	Λ.69	· .	Panala Cubaite 3	V () !-		
`	Custouy Sears III Frace; Tes	/ INU	1 16	mb i	DIAU	K. (15	<i>y</i> / 1	NO COOLE	1 16	шр (iii K	CUCI	hr: 3		T(برر	<u>l</u> .	tub	DIBUK!(I	CS // I	١Ü	1	IVI D	/ IVI 3	ט ענ	Sample Submitted:	1 62 / 1/10		

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: REC. BY (PRINT) WORKORDER:	ARCO III OZ BhanM Marosso		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	.041/1107 14:10 4-13-			For Regulatory Purposes? DRINKING WATER YES / NO WASTE WATER YES / NO				
CIRCLE THE APPR	OPRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		₽ŀl	SAMPLE	DATE SAMPLED	REMARKS: CONDITION (ETC.)		
1. Custody Seal(s)	Present / Alisent		,								
	Intact / Broken*										
2. Chain-of-Custody	Present / Absent*										
Traffic Reports or											
Packing List:	Present (Absent)		••								
4. Airbill:	Airbill / Sticker		· · · · · · · · · · · · · · · · · · ·						/		
	Present / Absent										
5. Airbiil #:						······································					
6. Sample Labels:	Present / Absent										
7. Sample IDs:	Listed Not Listed										
	on Chain-of-Custody		 								
8. Sample Condition:	(intact / Broken* /				N						
	Leaking*			•	. (/ 8)		-				
9. Does information o	n chain-of-custody,			d	3/		- 				
traffic reports and											
agree?.	Yes I No+			Joseph							
10. Sample received with	nin			100	-						
'hold time?	(√€) / No*		·	- 5							
 Adequate sample voi 	ите С					-					
received?	YES/ No-										
Proper preservatives	used? Xeg/No*								50 7 9		
13. Trip Blank / Temp Blank	ank Received?										
(circle which, if yes)	(Yes / No*			· · · · · · · · · · · · · · · · · · ·					5		
14. Read Temp:	g.h										
Corrected Temp:	5.4			-	'' ''			——	4- 		
Is corrected temp 4 -	+/-2°C? YB/No**						· 				
(Acceptance range for samples r	equiring Biermai pres.)										
**Exception (if any): ME											
or Problem COC	ľ								la l		
SEL Revision 8		"IF CIRCI	ED, CONTACT PROJEC	T MANAGER A	ATTA ON	ACH R	ECORD O	F RESOLUT	LION		

SRI, Revision 8 Replaces Rev 7 (07/19/05) Effective 09/13/06

Page 1 at

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION

Electronic Submittal Information

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

UPLOADING A GEO_WELL FILE

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

Submittal Title:

2Q07 GEO_WELL 11102

Facility Global ID:

T0600100908

Facility Name:

BP #11102

Submittal Date/Time:

7/2/2007 9:14:52 AM

Confirmation Number: 3679766595

Back to Main Menu

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

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

Your EDF file has been successfully uploaded!

Confirmation Number: 8948769330

Date/Time of Submittal: 7/2/2007 9:16:35 AM

Facility Global ID: T0600100908 Facility Name: BP #11102

Submittal Title: 2Q07 GW Monitoring **Submittal Type:** GW Monitoring Report

Click here to view the detections report for this upload.

BP #11102 Regional Board - Case #: 01-0985 100 MACARTHUR SAN FRANCISCO BAY RWOCB (REGION 2) OAKLAND, CA 94610 Local Agency (lead agency) - Case #: RO0000456 ALAMEDA COUNTY LOP - (SP) CONF# TITLE QUARTER 8948769330 2Q07 GW Monitoring Q2 2007 SUBMITTED BY SUBMIT DATE STATUS PENDING REVIEW Broadbent & Associates, Inc. 7/2/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 3 # FIELD POINTS WITH DETECTIONS 3 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL 3 SAMPLE MATRIX TYPES WATER METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH TESTED FOR REQUIRED ANALYTES? Υ LAB NOTE DATA QUALIFIERS QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS ٥ METHOD HOLDING TIME VIOLATIONS n LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT ٥ LAB BLANK DETECTIONS 0 DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK Υ - MATRIX SPIKE N - MATRIX SPIKE DUPLICATE Ν - BLANK SPIKE Υ - SURROGATE SPIKE Υ 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% Υ SURROGATE SPIKES % RECOVERY BETWEEN 85-115% Υ BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% Υ

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

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.