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Alameda County Environmental Health



Atlantic Richfield Company (a BP affiliated company)

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

Atlantic Richfield Company (a BP affiliated company) Station #276

10600 MacArthur Boulevard

Oakland, California

ACEH Case #RO0002565

"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** 

# Second Quarter 2007 Ground-Water Monitoring Report Atlantic Richfield Company Station #276 10600 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. 06-08-601

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



27 July 2007

Project No. 06-08-601

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

Attn.: Mr. Paul Supple

Re:

Second Quarter 2007 Report, Atlantic Richfield Company (a BP affiliated company) Station #276, 10600 MacArthur Boulevard, Oakland, Alameda County, California

ACEH Case #RO0002565

Dear Mr. Supple:

Provided herein is the Second Quarter 2007 Ground-Water Monitoring Report for Atlantic Richfield Company Station #276 (herein referred to as Station #276) located at 10600 MacArthur Boulevard, Oakland, Alameda County, California (Property). This report presents results of 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, P.E.

Senior Engineer

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

Principal Hydrogeologist

Enclosures

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

Electronic copy uploaded to GeoTracker

**ARIZONA** 

**CALIFORNIA** 

**NEVADA** 

**TEXAS** 

ROBERT H. MILLER

# STATION #276 QUARTERLY GROUND-WATER MONITORING REPORT

Facility: #276 Address:

Environmental Business Manager:

Consulting Co./Contact Persons:

Consultant Project No.:

Primary Agency/Regulatory ID No.:

Facility Permits/Permitting Agency:

Mr. Paul Supple

Broadbent & Associates, Inc.(BAI)/Rob Miller & Tom Venus
(530) 566-1400

06-08-601

Alameda County Environmental Health (ACEH)
ACEH Case #RO0002565

NA

# 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 on 8 May 2007 by Stratus Environmental, Inc (Stratus).

# WORK PROPOSED FOR NEXT QUARTER (Third Quarter 2007):

- 1. Submitted Second Quarter 2007 Ground-Water Monitoring Report (contained herein).
- 2. Conduct quarterly ground-water monitoring/sampling for Third Quarter 2007.

# QUARTERLY RESULTS SUMMARY:

Current phase of project:	Ground-water monitoring/sampling
Frequency of ground-water	Quarterly = MW-1, MW-2, MW-3, MW-4, MW-5, MW-6,
monitoring:	MW-7, MW-8, RW-1, WDR-3
Frequency of ground-water sampling:	Quarterly = MW-2, MW-5, and MW-8
. , ,	Semi-Annually (1Q and 3Q) = MW-6 and MW-7
•	Annually (1Q) = MW-1, MW-3, MW-4, WGR-3, and RW-1
Is free product (FP) present on-site:	No
Current remediation techniques:	NA
Depth to ground water (below TOC):	15.40 ft (MW-2) to 32.65 ft (MW-6)
General ground-water flow direction:	South-southwest
Approximate hydraulic gradient:	0.005 ft/ft

#### DISCUSSION:

Second quarter 2007 ground-water monitoring and sampling was conducted at Station #276 on 8 May 2007 by Stratus. Water levels were gauged in the 10 wells at the Site. No irregularities were noted during water level gauging. Depth to water measurements ranged from 15.40 ft at MW-2 to 32.65 ft at MW-6. Resulting ground-water surface elevations ranged from 44.86 ft above mean sea level in well WGR-3 to 33.61 ft in wells MW-5 and MW-8. Water level elevations were between historic minimum and maximum ranges for each well, as summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the south-southwest at approximately 0.005 ft/ft, 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. Potentiometric ground-water elevation contours are presented in Drawing 1.

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Consistent with the current ground-water sampling schedule, water samples were collected from wells MW-2, MW-5 and MW-8 on 8 May 2007. No irregularities were reported during sampling. Samples were submitted under chain-of-custody protocol to Test America Analytical Testing Corporation (Morgan Hill, California), for analysis of Gasoline Range Organics (GRO, C4-12) by the LUFT GCMS Method; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and tert-Amyl methyl ether (TAME), tert-Butyl alcohol (TBA), Di-isopropyl ether(DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Ethanol, Ethyl tert-butyl ether (ETBE), Tetrachloroethene (PCE), and Methyl tert-butyl ether (MTBE) by EPA Method 8260B. The laboratory reported that the GRO concentration for wells MW-5 and MW-8 was partly due to individual peak(s) in the quantitation range. The analysis for MTBE from well MW-8 required dilution. No other significant irregularities were encountered during laboratory analysis of the samples. Ground-water sampling field data sheets and the laboratory analytical report, including chain-of-custody documentation, are provided in Appendix A.

Gasoline range organics (GRO) were detected above the laboratory reporting limits in each of the wells sampled at concentrations up to 440 micrograms per liter (µg/L) in well MW-8. TAME was detected above the laboratory reporting limit in each of the wells sampled at concentrations up to 35  $\mu g/L$ in well MW-8. 1,2-DCA was detected above the laboratory reporting limit in two of the three wells sampled at concentrations up to 8.6 µg/L in well MW-5. MTBE was detected above the laboratory reporting limit in each of the wells sampled at concentrations up to 490 μg/L in well MW-8. PCE was detected above the laboratory reporting limit in two of the three wells sampled at a concentration of 9.0 µg/L in wells MW-5 and MW-8. 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 with the following exceptions: the concentration of TAME reported in well MW-5 was the highest on record, the concentration of 1,2-DCA in well MW-8 was the highest on record and the concentration of PCE in well MW-5 was the lowest on record. 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, 8 May 2007, Station #276, 10600 MacArthur Boulevard, Oakland, California

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Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #276, 10600 MacArthur Blvd., Oakland, CA
 Table 2. Summary of Fuel Additives Analytical Data, Station #276, 10600 MacArthur Blvd., Oakland, CA
 Table 3. Historical Ground-Water Flow Direction and Gradient, Station #276, 10600 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

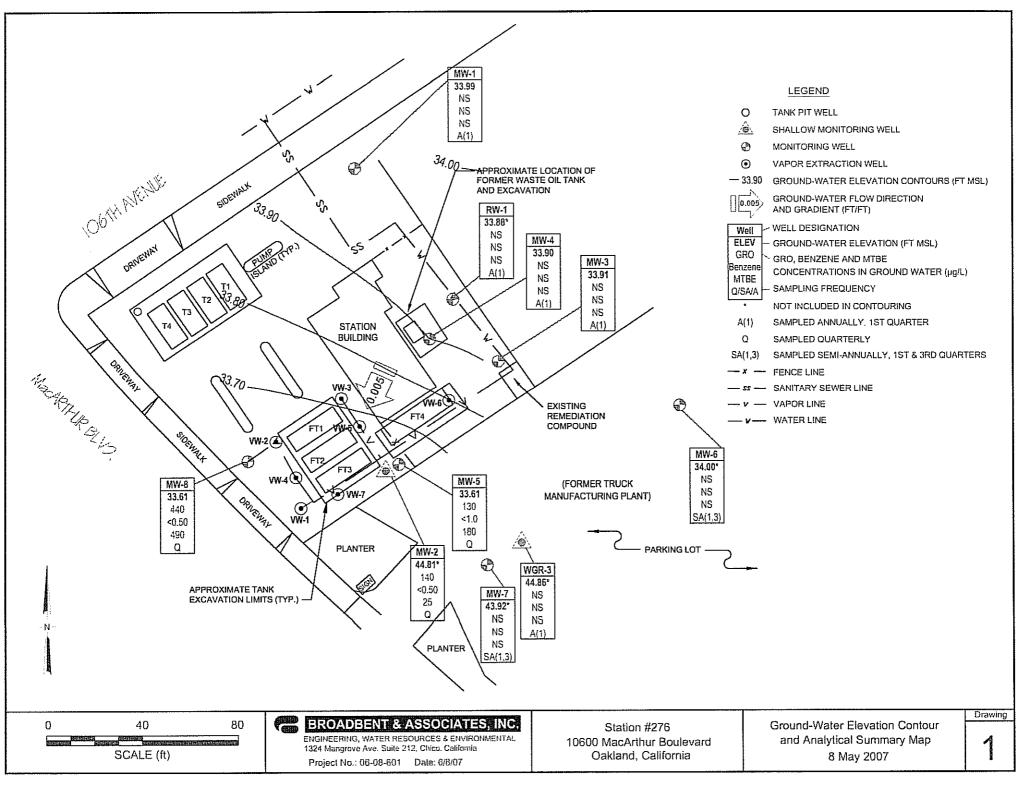


Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #276, 10600 MacArthur Blvd., Oakland, CA

				Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			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)	pH
MW-1														***************************************	
12/17/2000			55.92	. 23:50	28.50	29/16	26.76	5109							
12/28/2001			55.92	23.50	28,50	27.38	28.54	8.8	-				**	_	
11/27/2002	NP		55.92	23.50	2850	29.45	26,47	4,2						2.3	6.7
7/22/2003	NP	aristrogram takkadallalisikal	55.92	23.50	28.50	27.58	28.34	<50	<0.50	<0.50	< 0.50	<0.50	<0.50	3.1	6.7
11/07/2003	NP		55.92	23.50	28,50	30.42	25.50	₹50	<0.50	<b>&lt;</b> 0,50	<0.50	<0.50	<0,50	2,1	6.6
02/03/2004	NP		55.92	23.50	28.50	38.80	17.12	 :::::::::::::::::::::::::::::::::::			 Heilenerieris	 	 	1.5	
05/04/2004	NP	B B B	61.26	23.50 23.50	2850	26.67	34:59 31.77	<50 <50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0,50 <0.50	2.2	6.6
08/12/2004 11/10/2004	NP NP		61.26 61.26	23.50 23.50	28.50 28.50	29.49 30.29	31.77	50 	<0.50    80.50	<0.50 *0.50	<0.50 <0.50	<0.50	<0.50	2.2    2.1	6.6 6.6
02/03/2005	NP		61.26	23,50	28.50	26.23	35.03	-						0.89	
05/09/2005	F21621   F11622   F1		61.26	23.50	2850	22.93	38.33								
08/11/2005			61.26	23.50	28.50	26.11	35.15								
11/18/2005			61 26	23.50	28.50	29.14	32 12								
02/01/2006	NP	ì	61.26	23,50	28.50	24.15	37.11	53	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	6.7
5/30/2006			61.26	23.50	28,50	21.25	40.01								
8/10/2006			61.26	23.50	28.50	24.70	36.56	 		-			 		
11/2/2006			61.26	23.50	28.50	27:71	39.55								
2/6/2007	NP		61.26	23.50	28.50 <b>28.50</b>	28.12 27.27	33.14 33.99	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	7.57
5/8/2007			61.26	23.50	######################################										
MW-2		A CONTRACTOR OF THE CONTRACTOR	- warrowseneyeseyevilyo	C\$40454444141045777777777047044444				******************	o santrada engegnen engeran					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0********
12/17/2000			55.10	15.00	25.00	15.72	3938								
12/28/2001			55.10	15.00	25.00	27.38	27.72		 	 		-			
11/27/2002			55.10	15.00	25.00	16.35	38.75 38.90		Minimi						
7/22/2003	 		55.10 	15.00 15.00	25.00 25.00	16.20 18.22	36.88	990	 	_ 	 <5.0	 	- 110	 1.8	6.7
02/03/2004	P		55.10	15.00	25.00	13.63	41.47	180	<2.5	<2.5	2,6	4.1	55	1.8	6.5
05/04/2004	Na P	g	60.21	15.00	25.00	15.76	44,45	290	2.5	25	0 42.5	    ≼2.5	70	0.6	6.3
08/12/2004	P		60.21	15.00	25.00	17.21	43.00	<250	<2.5	<2.5	3.2	<2.5	49	1.6	6.6
11/10/2004	P		60.21	15,00	25.00	15.90	44:31	270	K1,0	<b>41.0</b>	1.6		90	0.9	62
02/03/2005	P	rumasaanamamaanamaleha  -	60.21	15.00	25.00	14.29	45.92	480	1.7	<0.50	2.0	1.4	37	1.53	6.5

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #276, 10600 MacArthur Blvd., Oakland, CA

	1		- Transferding	Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Tolucne	Benzene	Xylenes	МТВЕ	(mg/L)	pН
MW-2 Cont.															
05/09/2005	P		60.21	5.00	25.00	14.38	45.83	320	<0.50	≰0.50	<0.50	0.64	56	0.57	6.5
08/11/2005	P		60.21	15.00	25.00	15.97	44.24	320	<0.50	<0.50	<0.50	<0.50	50	1.0	6.3
11/18/2005	P P		60.21	15.00	25.00	17.66	42.55	990	3.2	0.64	3.8	1.6	49	3.23	6.5
02/01/2006	P	***************************************	60.21	15.00	25.00	12.50	47.71	<50	<0.50	<0.50	<0.50	<0.50	3.1	1.0	6.4
5/30/2006	P.		60.21	15.00	25.00	13.25	46.96	280	<0.50	<0.50	<0.50	<0:50	64	1.76	6.5
8/11/2006	P	Water Levels 8/10	60.21	15.00	25.00	15.90	44.31	210	<0.50	<0.50	<0.50	<0.50	28	0.63	6.4
11/2/2006	P		60.21	15:00	25.00	17.38	42.83	270	0.64	<0.50	<0.50	<0.50	40	1.41	6.82
2/6/2007	NP	i	60.21	15.00	25.00	15.48	44.73	110	<0.50	<0.50	<0.50	<0.50	39	0.67	6.95
5/8/2007	NP		60.21	15.00	25.00	15.40	44.81	140	<0.50	<0.50	<0.50	<0.50	25	0.84	6.85
MW-3													- Personal and the second		
12/17/2000			56.55	22.00	27.00	29.78	26.77	158							
12/28/2001		wasanininganahininga	56.55	22.00	27.00	27.95	28.60	310	20	1.5	13				
11/27/2002	NP		56.55	22.00	27.00	30.10	26.45	LLO						2.0	7.2
7/22/2003	NP	inputitidaishpilikilijilikiliii	56.55	22.00	27.00	28.32	28.23	120	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	5.9
11/07/2003	NP		56.55	22.00	27.00	30.86	25.69	70	≤0.50	≤0.50	₹0.50	≼0,50	<0.50	2.8	6.5
02/03/2004	NP		56.55	22.00	27.00	27.65	28.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.7
05/04/2004	NP	e de la companya de	61.89	22.00	27.00	27.57	34.32	<100	<1;0	\$1;0	<1.0	<u> </u>		116	6.4
08/12/2004	NP	**************************************	61.89	22.00	27.00	30.31	31.58	52	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	6.3
11/10/2004	NP		61.89	22.00	27,00	31,00	30.89	91	<0.50	<0.50	<0.50	<0.50	<0.50	26	6.7
02/03/2005	NP	i	61.89	22.00	27.00	26.85	35.04	180	<0.50	<0.50	<0.50	<0.50	<0.50	2,25	6.5
05/09/2005			61.89	22.00	27.00	23,72	38.17								
08/11/2005			61.89	22.00	27.00	26.84	35.05								
11/18/2005			61.89	22.00	27.00	29.82	32.07								
02/01/2006	NP		61.89	22.00	27.00	24.80	37.09	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	6.4
5/30/2006			61.89	22.00	27,00	21.77	40.12								
8/10/2006			61.89	22,00	27.00	25,37	36.52					-		-	
11/2/2006			61.89	22.00	27.00	28,43	33.46								
2/6/2007	NP	i	61.86	22.00	27.00	28.85	33.01	50	<0.50	<0.50	<0.50	<0.50	<0.50	1.27	8.63
5/8/2007			61.86	22.00	27.00	27.98	33.88								

# Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses Station #276, 10600 MacArthur Blvd., Oakland, CA

				Top of	Bottom of		Water Level			Concentra	tions in (µ)	9/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	ТРН	Benzene	Toluene	Benzene	Xylenes	МТВЕ	(mg/L)	pН
MW-4															
12/17/2000			55.98	25.00	45.00	29.22	26,76	225							
12/28/2001		1144/2014  1041  1041  1041  1041  1041  1041  1041  1041  1041  1041  1041  1041  1041  1041  1041  1041  104	55.98	25.00	45.00	27.37	28.61	160	1.2						
11/27/2002	NP		55.98	25.00	45.00	29.55	26,43	95						3.7	6.7
7/22/2003	NP		55.98	25.00	45,00	27.73	28.25	130	<0.50	<0.50	<0.50	<0.50	<0.50	2.9	6.6
11/07/2003 02/03/2004	NP NP		55.98 55.98	25.00 25.00	45.00 45.00	30.41 27.01	25157 28.97	59 <50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	≤0.50 <0.50	2.6 4.2	65 7.1
05/04/2004	NP	B	61.30	25.00	45.00	26.91	26.57 34.39	<100	-0.50 	-0.50 	<1.0	\0.50 	<0.30 <1.0	4.2	6.5
08/12/2004	NP		61.30	25.00	45.00	29.76	31.54	58	<0.50	<0.50	<0.50	<0.50	<0.50	2.3	6.4
1-1/10/2004	NP		61.30	25.00	45.00	30.40	30,90	69	<0.50	<0.50	₹0.50	<0.50	<0.50	24	6.6
02/03/2005	NP	i	61.30	25.00	45.00	26.28	35.02	51	<0.50	<0.50	<0.50	<0.50	<0.50	3.77	6.8
05/09/2005			61.30	25.00	45.00	23.14	38,16								
08/11/2005	 Harrennen		61.30	25.00	45.00	26.23	35.07		 	<del></del>	ernesienistriesie				
11/18/2005 02/01/2006			61.30	25,00	45,00	29.24	32.06				-0.50				
5/30/2006	P		61.30 61.30	25.00 25.00	45.00 45.00	24,20 21,26	37.10 40.04	330	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	7.0
8/10/2006			61.30	25.00	45.00	24.62	36.68				-		<u>-</u>		
11/2/2006			6130	25.00	45.00	27.90	33.40.								
2/6/2007	. NP	i	61.30	25.00	45.00	28.28	33.02	55	<0.50	<0.50	<0,50	<0.50	<0.50	1.21	8.28
5/8/2007			61.30	25.00	45.00	27,40	33.90								
MW-5															İ
12/17/2000			55 43	23,50	31.50	28.82	26,61	1,040							
12/28/2001		3634674466240024624664466466466	55.43	23.50	31.50	26.91	28.52	3,200	190	2/4/1900	140	1.9/3,2/2,0			
I 1/27/2002	P		55.43	23.50	3150	29.15	26.28	110						1,4	64
7/22/2003	<b>P</b>	anesten kalerin kattin navakata kalekti terbah kener	55.43	23.50	31.50	27.43	28.00	160	<1.0	<1.0	<1.0	<1.0	110	1.5	6.6
11/07/2003	Period		55.43	23.50	31,50	29.99	25,44	#250 0.5	255 	72.5	<25	<2.5	120	0.6	6.12
02/03/2004	P inni p		55,43 60,73	23.50 23.50	31.50 31.50	26.55 26.47	28.88 34.26	85  ≪250  -	<2.5	<2.5 ■ <b>&lt;</b> 2.5	<2.5 <b>&lt;</b> 2.5	<2.5	71 150	1.7	6.7
08/12/2004	P	g	60.73	23.50	31.50	29,49	31.24	\$250 <250	<2.5	<2.5	<2.5	<2.5	140	0.9 1.8	6.2 6.3
11/10/2004	P		60.73	23.50	31.50	30.15	30.58	170	<1.0	~2.5 # <b>\$10</b> #	~2.5 \$1.0	<1.0	150	1.0	6.3
02/03/2005	P	gan sayayan eyan balan da karan balan da balan bal	60.73	23.50	31.50	25.85	34.88	100	<0.50	<0.50	<0.50	<0.50	16	1.65	6.5

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #276, 10600 MacArthur Blvd., Oakland, CA

				Top of	Bottom of		Water Level	and the state of t		Concentra	tions in (µ	g/L.)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			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-5 Cont.					:				:						
05/09/2005	iliji P		60.73	23.50	3150	22.85	37.88	340	<2.5	<2.5	<2.5	2.5	140	0.87	63
08/11/2005	P		60.73	23.50	31.50	26.05	34.68	<250	<2.5	<2.5	<2.5	<2.5	160	1.6	6.3
11/18/2005	<u> </u>		60.73	23,50	31/50	29.07	31.66	\$250	-<2.5	<2.5	<2.5	25	120	1.98	63
02/01/2006	<b>P</b> 	i alatantuhasatunounnununun	60.73	23.50	31.50	23.70	37.03	520	<1.2	<1.2	<1.2	<1.2	100	0.4	6.4
5/30/2006	P		60.73	23.50	3150	21.03	39.70	220	<b>52.5</b>	<b>2</b> 25	25	2.5	230	1.32	6.3
8/11/2006	P	Water Levels 8/10	60.73	23.50	31.50	24.77	35.96	150	<2.5	<2.5	<2.5	<2.5	170	0.68	6.1
11/2/2006	P		60.73	23.50	31,50	27.65	33.08	100	<1.0	<b>310</b>	≲1.0	\$1.0	160	143	6.52
2/6/2007 5/8/2007	NP NP		60.73	23.50 23.50	31.50	28.00	32.73	150	<1.0	<1.0	<1.0 https://www.comber	<1.0	120	1.19	7.33
213213211231123112311122311123111311131			60.73		31.50	27.12	33.61	130	<1.0	<1.0	<1.0	<1.0	180	0.82	6.42
MW-6									j .						
12/17/2000			61.21	37,50	56,00	34.61	26.60								
12/28/2001		THE CONTROL OF STREET STREET, STREET STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, S	61.21	37.50	56.00	32.80	28.41		**						
11/27/2002			61.21	37,50	56.00	35.00	26.21								
7/22/2003	 P		61.21	37.50	56.00	33.17	28.04	 Chienesesses							
11/07/2003 02/03/2004	P	d, e	61.21	37,50	56.00	35.70	2551	<500	\$5.0	<5.0	<b>\$5.0</b>	<5.0	<b>≤</b> 5.0	2.7	6.9
05/04/2004	r Historia	The Control of the Co	61.21 66.65	37.50 37.50	56.00 56.00	32.17 32.07	29.04 34.58	84 ≼250	<2.5 <2.5	<2.5 ≪2.5	<2.5	<2.5 <2.5	<2.5 <b>&lt;2.5</b>	1.9	7.0
08/12/2004	P		66,65	37.50	56.00	34.90	31.75	660	<0.50	<0.50	<0.50	<0.50	0.81	2.0 1.4	6.7 6.9
11/10/2004	E P		66.65	37.50	56.00	35.70	30.95	640	<050	<0.50	<0.50	<0.50	0.89	26	6.8
02/03/2005	P	eren vereren eren eren eren eren. i	66.65	37.50	56.00	31.48	35.17	77	<0.50	<0.50	<0.50	<0.50	<0.50	1.73	7.0
05/09/2005			66,65	37.50	56.00	28.37	38,28								
08/11/2005	P	mangulahannen mendebelah	66.65	37.50	56.00	31.40	35.25	630	<0.50	<0.50	< 0.50	< 0.50	0.77	1.9	6.3
11/18/2005			66.65	37,50	56.00	34,50	32.15						i All II <u>u</u> hlikel		
02/01/2006	P	i	66.65	37.50	56,00	29.40	37.25	760	<5.0	<5.0	< 5.0	<5.0	<5.0	2.1	6.9
5/30/2006			66.65	37.50	56.00	26,51	40,64								
8/11/2006	P	Water Levels 8/10	66.65	37.50	56.00	30.10	36.55	790	<5.0	<5.0	<5.0	<5.0	<5.0	1.32	6.7
11/2/2006			66.65	37,50	56,00	33.12	33,53								
2/6/2007	P		66.65	37.50	56.00	33.53	33.12	510	<0.50	<0.50	<0.50	<0.50	0.80	0.68	6.84
5/8/2007			66.65	37.50	56.00	32.65	34.00								

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #276, 10600 MacArthur Blvd., Oakland, CA

•				Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			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-7															
12/17/2000			58.22	117.50	375	19.94	38.28								
12/28/2001		1. T T T T T T T T T T T T T T T T T T T	58.22	17.50	37.5	17.29	40.93								
11/27/2002			58.22	17.50	37.5	21.30	36.92								
7/22/2003			58.22	17.50	37.5	21.36	36.86	 WESTENSTO		 Hittingganganin			 	_	 10:2::20:
02/03/2004	P P	d L	58.22 58.22	17.50 17.50	37.5 37.5	23,76 17.74	34.46 40.48	3,200 53	<0.50	<2.5 <0.50	<0.50	0.54	32 32	1.9	6.8 6.4
02/03/2005	P		63.54	17.50	37.5	18.13	45.41	61	<0.50 <0.50	<0.50	<0.50    ≤0.50	<0.50	14	3.39	6.5
05/09/2005	 		63.54	17.50	37.5	18.39	45.15						-		
08/11/2005	P		63.54	17.50	975	21.47	42.07	1,500	1.8	<1.0	4.2	1,2	21	2.0	63
11/18/2005			63.54	17.50	37.5	22.41	41.13			_					
02/01/2006	P		63.54	17.50	37.5	16.65	46.89	₹50	<0.50	<0.50	<0.50	<0.50	1.8	13	6.3
5/30/2006 8/11/2006	 	WALLWAYIN A	63.54 63.54	17.50 17.50	37.50 37.50	19.22 21.28	44.32 42.26	1,800		   0,55	 	- 11211415	41	1,22	 6.4
11/2/2006			63.54	17.50	37.50	22.61	40.93								
2/6/2007	NP NP		63.54	17:50	3750	19:79	43.75	530	<0.50	  - ≤0.50	<0.50	₩ <b>₹0.50</b> ₩	######################################	0.93	7,23
5/8/2007			63.54	17.50	37.50	19.62	43.92	minikanijiniiniinii 		<u> </u>	——————————————————————————————————————				
MW-8															
12/17/2000			53.65	29,00	49,00	27.02	26.63								
12/28/2001		\$ 0 m t = m 4 m 4 m 1 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2	53.65	29.00	49.00	24.99	28.66						——		
11/27/2002			53.65	29,00	49,00	27.45	26.20							1	
7/22/2003	 P		53.65 53.65	29.00 29.00	49.00	25.74 28.27	27.91 25.38	 <500	 <5.0	 	-   ≷5 0	 <5.0	 440	-	
02/03/2004	P	r F	53.65	29.00 29.00	49,00 49.00	24.80	28.85	170	<12	<12	<12	<12	470	2.6 3.0	6.7
05/04/2004	P		58.96	29:00	49.00	24.81	34.15		<10	 	<10	-12 	700	3.8	6.4
08/12/2004	P		58.96	29.00	49.00	27.72	31.24	<2,500	<25	<25	<25	<25	400	3.4	6.5
11/10/2004	P		58.96	29.00	49,00	28,41	30.55	<500	<5.0	<5.0	<5.0	<5.0	480	3.4	6.3
02/03/2005	P		58.96	29.00	49.00	24.01	34.95	<50	<0.50	<0.50	<0.50	<0.50	45	1.43	6.4
05/09/2005	P		58.96	29.00	49.00	21.07	37.89	640	<5.0	<5.0	<5.0	<5.0	440	1.06	6.4
08/11/2005	P summy sistem		58.96	29.00	49.00	24.32	34.64	<500	<5.0	<5.0	<5.0	<5.0	420	5.0	6.1
11/18/2005	P		58.96	29.00	49.00	27.35	31.61	<500	<5.0	K5.0	<5.0	25.0	390	3.51	6.4

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #276, 10600 MacArthur Blvd., Oakland, CA

				Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			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-8 Cont.															
62/01/2006	P		58.96	29.00	49.00	22,00	36.96	520	₹5.0	<b>\$5.0</b>	   ≤5,0	<b>5.0</b>	600	05	63
5/30/2006	P	i isperasti eda eleferrar de la delegada el butor de de el de	58.96	29.00	49.00	19.25	39.71	310	<5.0	<5.0	<5.0	<5.0	480	1.35	6.3
8/11/2006	P	Water Levels 8/10	∄-58J96 ⊪	29.00	49.00	22,95	36.01	320	≤0.50	₹0.50	<0.50	<0.50#	630	0.65	6.2
11/2/2006	P		58.96	29.00	49.00	25.98	32.98	370	<2.5	<2.5	<2.5	<2.5	660	1.46	6.61
2/6/2007	i P	$\mathbf{i}$	58.96	29.00	49,00	26,27	32.69	66	i <b>&lt;</b> 0.50	<0.50	₹0.50	<0.50	60	0.65	6.64
5/8/2007	P	i, j (MTDE)	58.96	29.00	49.00	25.35	33.61	440	<0.50	<0.50	<0.50	<0.50	490	1.35	6.60
RW-1															
12/17/2000	1011031144		56.32	36.00	51.00	29.57	2675								
12/28/2001			56.32	36.00	51.00	27.64	28.68	 Introduction							
11/27/2002			5632	36.00	51.00	29,93	2639								
7/22/2003			56.32	36.00	51.00	28.09	28.23		4-164841824KH94194194				iditikirezekinekinekinenekik		
11/07/2003	P		56.32	36.00	51.00	30.64	25.68	<b>450</b>	<0.50	<0.50	<0.50	<0.50	<0.50		7.0
02/03/2004	P		56.32	36.00	51.00	27.28	29.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.7	7.1
05/04/2004	P	8	61.65	36.00	51.00	27,16	34.49	≤50	<0.50	<0.50	<0.50	<0.50	<0.50	144	6.8
08/12/2004	P		61.65	36.00	51.00	30.10	31,55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	7.1
11/10/2004	illi <b>p</b>		61.65	36:00	51.00	30.79	30.86	<100	<b>&lt;0.50</b>	₹0.50	₹0.50	<0.50	<0.50	57	6.9
02/03/2005	P		61.65	36.00	51.00	26.61	35.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.57	7.1
05/09/2005			61.65	36.00	51100	2351	38.14								
08/11/2005		13 av dilikiring dak ingan dakiri jiya ingan yakiring repolikat	61.65	36.00	51.00	26.60	35.05		-				-		
11/18/2005			61.65	36:00	51,00	29.65	32.00								
02/01/2006	P	i eg statiski kalenda k	61.65	36.00	51.00	24.65	37.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	7.0
5/30/2006			61.65	36.00	51,00	21.69	39.96								
8/10/2006	errananinaka 	HANTEN FRANKLISTER FRANKLISTER FRANKLISTER FRANKLISTER FRANKLISTER FRANKLISTER FRANKLISTER FRANKLISTER FRANKLI	61.65	36.00	51.00	25.31	36.34								
11/2/2006			61.65	36.00	5100	28,28	33.37								
2/6/2007	NP	CAREELO GARANTARIA HARRANIA MARIA	61.65	36.00	51.00	28.63	33.02	<50	< 0.50	<0.50	<0.50	< 0.50	<0.50	2.21	6.92
5/8/2007			61.65	36.00	5L00	27.77	33.88								Plaking kiloba Distriction Distriction
WGR-3				•											
12/17/2000						1921									
12/28/2001	direntatrimitatrimitilisi 	h		9.5044   6.70444   6.50444   6.5044   6.5044   6.5044   6.5044   6.5044   6.5044   6.5044   6.5044   6.5044			eseeste te reseerte de la constituit de la 						**		186441165

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

	·			Top of	Bottom of		Water Level			Concentra	tions in (µ <sub>1</sub>	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Велгепе	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
WGR-3 Cont.															
11/27/2002						20.60					-				
7/22/2003						20.77				-			**		
05/04/2004	P.	8	63.27			19.53	43.74	r\$0	<0.50	<0.50	<b>\$0.50</b>	<b>≤0.50</b>		118	6.5
08/12/2004	P		63.27			22.20	41.07	<50	<0.50	<0.50	<0.50	<0.50	35	2.0	
11/10/2004	P		63.27			19.98	43.79	<50	<0.50	<0.50	₹0.50	<0.50	. 5,6	0.3	6.3
02/03/2005	P		63.27	<del></del>		16.91	46,36	<50	<0.50	<0.50	<0.50	<0.50	1.1	2.04	6.5
05/09/2005			63.27			17.29	45,98								
08/11/2005			63.27			20.88	42.39			-					
11/18/2005			63.27			22 15	41.12								
02/01/2006	P	tukosesninininininininininininininininininin	63.27			14.90	48.37	<50	<0.50	<0.50	<0.50	<0.50	2.3	2.0	6,5
5/30/2006			63:27			1839	44.88								
8/10/2006		, , , , , , , , , , , , , , , , , , ,	63.27			20.63	42.64							_	
11/2/2006			63.27			20.32	42.95								
2/6/2007	P		63.27	-	**	18.52	44.75	<50	<0.50	<0.50	<0.50	<0.50	4.4	0.89	6.87
5/8/2007			63.27			18.41	44:86								

#### SYMBOLS & ABBREVIATIONS:

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

BTEX = Benzene, toluene, ethylbenzene and xylenes

DO = Dissolved oxygen

DTW = Depth to water in ft bgs

ft bgs = Feet below ground surface

ft MSL = Feet above mean sea level

GRO = Gasoline range organics

GWE = Groundwater elevation measured in ft MSL

mg/L = Milligrams per liter

MTBE = Methyl tert butyl ether

NP = Not purged prior to sampling

P = Purged prior to sampling

TOC = Top of easing measured in ft MSL

TPH-g = Total petroleum hydrocarbons as gasoline

μg/L = Micrograms per liter

#### FOOTNOTES:

a = 1,1 DCE; this footnote is no longer applicable.

b = 1.2 DCA; this footnote is no longer applicable.

c = Chlorobenzene; this footnote is no longer applicable.

d = Sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. Results may still be used for intended purpose.

e = The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.

f = Discrete peak @ C5 for GRO/TPH-g.

g = Site was re-surveyed to NAVD' 88 on January 26, 2004.

h = Well was dry.

i = Hydrocarbon result for GRO partly due to individual peak(s) in quantitative range.

i = Initial analysis within holding time but required dilution.

#### 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.

Groundwater samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

Values for pH and DO levels are 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 #276, 10600 MacArthur Blvd., Oakland, CA

Well and	•	· · · · · · · · · · · · · · · · · · ·				C	oncentration	s in (μg/L)							
Sample Date	Ethanol	ТВА	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	Footnotes
MW-1										i I					
12/17/2000										The strain of th			5.09		
12/28/2001							<b></b>			••			8.8		************************
11/27/2002	<100	010/E	- <u>-</u> <0.50	<0.50	<0.50	<0.50	<0.50	<0.50					4.2 6.0		
7/22/2003 11/07/2003	<100 \$100	<20 <20	<0.50 <0.50	<0.50	<0.50	<0.50 <0.50		~0.30					3.0		
02/03/2004	######################################	######################################		uususemealua 		######################################									
05/04/2004	<b>₹100</b> €	₹20	<0.50	<0.50	<0.50	<0.50	-  <0.50	<0.50					34		
08/12/2004	<100	<20	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	-	<b>-</b>			4.5	<b></b>	
11/10/2004 02/03/2005		<b>2</b> 0 -	<0.50 -	<0.50 	<0.50 IIII	<0.50 	= ≤0.50 	<0.50					4,9		
05/09/2005															
08/11/200 <i>5</i>	 		- -	::::::::::::::::::::::::::::::::::::::		_				-			-		
11/18/2005															
02/01/2006 5/30/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					38		e Harana
8/11/2006								/							5 S
i 1/2/2006															8
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					-		
MW-2															
11/07/2003	<1,000	<200	110	\$5.0	\$5.0	28							<5.0		
02/03/2004	<500	<100	55 70	<5.0 <2.5	<5.0 <2.5	16 15	<2.5	<2.5	 				<2.5		\$1441X3671X16415414551XM00
05/04/2004 08/12/2004	<500 <500	<100 <100	49	<2.5	>-1 <2.5	14		<2.5					<0.50		
11/10/2004	<200	<40	90	₹10	[ [] []	ا وا	<1:0	<b>\$1.0</b>					<1.0		
02/03/2005	<100	<20	37	<0.50	<0.50	13	<0.50	<0.50				PROTESCULARIES NACIONALIS CARRACTER	<0.50		<b>E</b>
05/09/2005	<100	<b>₹20</b>	56	<0.50	<0.50	17	<b>₹0.50</b>	<0.50					<0.50		
08/11/2005 EI/18/2005	<100	<20 <20	50 49	<0.50	<0.50	8.5	<0.50 <0.50	<0.50		 			<0.50 ≤0.50	 aranızınd	
02/01/2006	<300	<20	3.1	<0.50	<0.50	0.52	<0.50	<0.50					<0.50		e e
5/30/2006	⊴300	\$20	64	<0.50	ं<0.50	12	≤0.50	<b>&lt;</b> 0.50					<0.50		
8/11/2006	<300	<20	28	<0.50	<0.50	5.9	<0.50	<0.50					<0.50		

Table 2. Summary of Fuel Additives Analytical Data Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and						C	oncentration:	in (μg/L)							•
Sample Date	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	Footnotes
MW-2 Cont.															
11/2/2006	<300	₹20	40	<b>≥0.50</b>	<b>40.50</b>	79	<0.50	₹0.50±					<b>₹0.50</b>		
2/6/2007	<300	<20	39	<0.50	< 0.50	9.2	< 0.50	<0.50		-					
5/8/2007	300	<20	25	<0.50	<0.50		<0.50	<0.50					<0.50		
MW-3															-
12/17/2000													158		
12/28/2001		<u></u>	######################################		inedieleniiliikki <del></del>		-		1.5	13			310	20	
11/27/2002													110		
7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		-		-	80		
11/07/2003	<100	<20∷	\$0.50	≥0.50	<0.50	S0.50							80		
02/03/2004	<100	<20	< 0.50	<1.0	0.1>	<1.0 	<0.50	<0.50	— 	— ————————————————————————————————————		# ####################################	110		
05/04/2004	<200 ≤100	<40	<1.0 <0.50	<1.0 <0.50	<1.0 <0.50	<1.0 <0.50	<1.0 <0.50	<1.0 <0.50					110		
08/12/2004 11/10/2004	<100 <100	<20 <b>&lt;20</b>	<0.50 20.50	<0.50 ≰0.50	<0.50	<0.50 <0.50	<0.50	<0.50 ≰0.50			anusalijaijerej		61 		
02/03/2005	<100	<20	<0.50	<0.50	<0.50		<0.50	<0.50		-			160		unida de la composição de La composição de la composição
05/09/2005															
08/11/2005			 								\$-esis Decressis (sitiat () in				### UPFER7178742TTPFEC/277FEA
11/18/2005															
02/01/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					110		e markanananan
5/30/2006															
8/11/2006 11/2/2006				-		<del>-</del>			 	 	 	 		 	g
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50						-	<b>8</b>
MW-4	500		0.22	0.20						***************************************					
	11,344,552,553,664,554,653,643,643														
12/17/2000										-			225 III. 160	1,2	
12/28/2001	 		- 		 			 	- 				95	1.2	
7/22/2003	<100	<20	<0.50	<0,50	<0.50	<0.50	<0.50	<0.50		######################################			94		
11/07/2003	×100	20 20	0.50	<0.50	<0.50	<0.50							68		
02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50					83		igennesseonzesspråfersklikk
05/04/2004	<200	<b>40</b>	<1.0	<10	<1.0	<b>41.0</b>	<b>410</b>	<b>110</b>					81		

Table 2. Summary of Fuel Additives Analytical Data Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and							oncentration:						**		
Sample Date	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	voc	Oxygen	PCE	TCE	Footnotes
MW-4 Cont.										-					
08/12/2004	E <100	⊒/⊒ <b>€</b> 20	≤0.50	₹0.50	≤0.50	<0.50	<0.50	<0.50					59		
11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50					78		
02/03/2005	:::: <100 <b> </b>   =	₹20	<0.50	<0.50	≅0.50	€0.50	##<0.50	<0.50					61		e i
05/09/2005	 	<del></del>		**************************************	·*****				==		THE REPORT OF THE PARTY OF THE	IAGERA ES COMPT PROPRETO COLO			######################################
08/11/2005		1													
11/18/2005 02/01/2006	 ≤300	<i>-</i> - <20	   <0.50	 ≤0,50	 <0.50	 Herearker	 			<del>-</del>		ti dan menganan menganan		 	TINGSTANIANA
5/30/2006		-		 	- -	₹0.50	<0.50	≼0,50 					320		
8/11/2006													-	 	g
11/2/2006		 		—	======================================	 									g
2/6/2007	≤300	<b>\$20</b>	<b>&lt;050</b>	<b>                                     </b>	₹0.50	40,50	<0.50	<050							
MW-5															
12/17/2000	1												1,040		
12/28/2001					 			mistichiminamis.	36	140	1.9, 3.2, 2.0	-	3,200	190	a,b,c
11/27/2002													110		
7/22/2003 L 1/07/2003	<200 <500	<40 <b>₹100</b>	110 120	1.4	<1.0 <2.5	3.2 6.6	12	<1.0					55		,201881:251:251:251:251:251:251:251:251:251:25
02/03/2004	<500	<100 <100	三郎昭/6日 71	<2.5 <5.0	≤2.5 <5.0	6.6 <5.0	12	<2.5					42		
05/04/2004	≤500	100 100 100	150	<25	<2.5	>.u 5.9	8.8	\2.5    <b>k2</b> 5	-				130 36	-	
08/12/2004	<500	<100	140	<2.5	<2.5		10	<2.5	-				37		
11/10/2004	₹200	<b>40</b>	150		<1,0	9.5	9.8	≼i o					50		
02/03/2005	<100	<20	16	<0.50	<0.50	0.54	2.7	<0.50				a to to the total and the tota	480		е
05/09/2005	₹500	<b>≪100</b>	140	₹2.5	₹2.5	9.2	10	225					78		e
08/11/2005 11/18/2005	<500 <500	<100 <100	160 120	<2.5	<2.5	10 	9.6 10	<2.5 	 Nakanasaras	 Valentia del controlo			27	 :::::::::::::::::::::::::::::::::::	H3714444)4742444444
02/01/2006	<750	<50	100	~2.5 <1,2	<1.2	5.1	7.4	<1.2					19 470		I I
5/30/2006	<b>≪1,500</b>	\$100	230	·	25			<2.5					470		e Imagana
8/11/2006	<1,500	<100	170	<2.5	<2.5	14	9.2	<2.5	 		15129H (1) (4) (4) 	######################################	24		dinadoridas, es
11/2/2006	<600	<40.	160	\$1.0		12	7,8	<1.0					9.8		
2/6/2007	<600	<40	120	<1.0	<1.0	13	4.6	<1.0							\$517(X7241) (X2541301V(11315)
5/8/2007	<600	<40	180	≤1.0	S1.0	16	8.6	≤1.0					9.0		

Table 2. Summary of Fuel Additives Analytical Data Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and						C	oncentration:	in (μg/L)							
Sample Date	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	Footnotes
MW-6															
1 1/07/2003	<1,000	<200	  ### <b>#</b> \$50###	≈5.0	<5.0	₹5.0							 		(iddahadianan
02/03/2004	<500	<100	<2.5	<5.0	<5.0	<5.0	<2.5	<2.5		-			220	Fannikkilli.	
05/04/2004	≤500	<100	<2.5	25	25	25	<2.5	<2.5					210		
08/12/2004	<100	<20	0.81	<0.50	<0.50	<0.50	<0.50	<0.50					750		
11/10/2004	≤100	<20	0,89	<0.50	<0.50	<0.50	<0.50	<0.50					530		
02/03/2005	<100	<20	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50				i miunitadasnama	85		<b>е</b>
05/09/2005		-20	0.77		-0.50	-0.50	-0.50	-0.50							
08/11/2005 11/18/2005	<100 ###################################	<20 	0.77	<0.50	<0.50	<0.50	<0.50	<0.50					610		
02/01/2006	#####################################	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0					690		e e
8/11/2006	∰ <b>≼3,</b> 000	\$200 W	45.0	\$5.0	₹5.0	\$50	<b># \$5.0 # #</b>	## <b>\$5</b> 0 m					880		
2/6/2007	<300	<20	0.80	< 0.50	<0.50	< 0.50	< 0.50	< 0.50							
MW-7			-												
11/07/2003	<b>₹500</b>	 	53	2.5	 	13							225		
02/03/2004	<100	<20	32	<1.0	<1.0	7.4	<0.50	<0.50			inisidhididididi		0.74		signification (linear to train
02/03/2005	100 <b>≤</b> 100	₹20	14	₹0.50	<0.50	3.9	<0,50	₹0.50					1,61		ě
05/09/2005							==				P 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	(4) (14) (4) (4) (4) (4) (4) (4) (4) (4) (4) (			Angunya uni ang
08/11/2005	≮200	<b>&lt;40</b>	21	\$10	iii <b>≤1.0</b>	4.7	<b>1.0</b>	::::::\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:					10	1	e e
11/18/2005			-	– Harioteninista		-			-				<del></del>		<u> </u>
02/01/2006 8/11/2006	<300 <300	<20 <20	1.8 41	<0.50 <0.50	<0.50 <0.50	<0.50 9.0	<0.50 <0.50	<0.50 <0.50					0.71 <0.50		e
2/6/2007	<300 ≰300	<20 <b>≤20</b>	41   8.4	<0.50	<0.50	9.0	<0.50 <0.50	<0.50				 	<0.50 <0.50		
MW-8															
i iniviria i in comprime propagation de la compresiona della compr					***************************************	: (1415)   PART   P			Managering		***********************	i kandintoimuuteen saansaa	knamenennase	seresonesador	
11/07/2003	<1,000	<200	440	<5.0	<5.0	18							₹5.0 •		
02/03/2004 05/04/2004	<2,500 <2,000	<500 \$400	470 700	<25	<25 ≮[0	<25 21	<12 <10	<12 <10		 :::::::::::::::::::::::::::::::::::			<12 12		
08/12/2004	<5.000	<1,000	400	<25	<25	<25	<25	<25	-				1.1		
17/10/2004	<1,000 	<200	480	-25 - ≤50	<5.0		2.0 14 14 15 10 11 11 11 11 11 11 11 11 11 11 11 11						8.9		
02/03/2005	<100	<20	45	<0.50	<0.50	1.9	<0.50	<0.50		-			0.59		c
05/09/2005	<1,000	<200	440	## <b>!</b> \$510###	<5.0	21	<5.0					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<5.0		

Table 2. Summary of Fuel Additives Analytical Data Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and		Concentrations in (µg/L)  Ethanol TRA MARE DIRE SARE 12 DCA EDR trans 12 vic. 12 VOC Organ RCE TOE E													
Sample Date	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	Footnotes
MW-8 Cont.															
08/11/2005	<1,000	<200	420	<5.0	<b>5.0</b>	24	€5.0	<b>25.0</b>				1935-1681-1315-140-1799-00-	≤0.50		
11/18/2005	<1,000	<200	390	<5.0	<5.0	23	< 5.0	<5.0					4.2		f
02/01/2006	<3,000	<200	600	<5.0	<5.0	21	<5,0	<5.0					<0.50		
5/30/2006	<3,000	<200	480	<5.0	<5.0	25	<5.0	<5.0	-				<5.0		***************************************
8/11/2006	<300	<20	630	<0.50	<0.50	37		<0.50					<0.50		
11/2/2006	<1,500	<100	660	<2.5	<2.5	43	<2.5	<2.5		 !###################################			<2.5	— (31) (11) (11) (11) (11)	
5/8/2007 5/8/2007	<300 <300	<20 <20	60 490	<0.50 <0.50	<0.50 <0.50	4.8 35	≮0.50 1.9	<0.50 <0.50					072		ALCASTO
RW-1	7,00	~20	490	~0.30	70.50	33	1.9	~0.50		_	<del></del>		9.0		h (MTBE)
		0114464461300013161616141614	erairi osaaa saasaa erossa kiraro	denomicaentaenus.	oraniananananananan		Tankan para apara a		-		. 200 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			-26,000002006002000	
11/07/2003	<100	<20	<0.50	<0.50	<b>₹0.50</b>	<0.50									
02/03/2004 05/04/2004	<100 4100	<20 <20	<0.50 <0.50	<1.0 <050	<1.0 <0.50	<1.0 <0.50	<0.50 <0.50	<0.50 ■ <b>&lt;</b> 0.50	<b>-</b>				0.76	— 404604	
08/12/2004	330/<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		-			2.9		d
11/10/2004		\$20	<0.50	<0.50	₩ <b>₹0.50</b>	K0.50	<b>≤</b> 0.50	<0.50					512		
02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		_		: :::::::::::::::::::::::::::::::::::::	1.7		e e
05/09/2005															
08/11/2005			<b></b> Enderfriringsverdigterfrist		 Karananeranan										
11/18/2005 02/01/2006	<300		<0.50	<0.50		-0.50	<0.50	<0.50							
5/30/2006		<20		0.50	<0.50	<0.50	\0.50 	70.30 			<u>.</u>		1.7		e g
11111111111111111111111111111111111111			1000 (1000) 	15111161161161111111111111111111111111											g
11/2/2006															Š.
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					15	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	lie li 1327 lie justi 222 dischart
WGR-3				i i											
05/04/2004	<100	20	li i ri i i	<0.50	<b>≤</b> 0.50	2.4	₹0.50	<0.50					<0.50		
08/12/2004	<100	<20	35	<0.50	<0.50	7.5	< 0.50	<0.50			Latarak (Katab (Dali) ili		<0.50		
11/10/2004	<100	<20	5.6	<050	<0.50	1,3	<0.50	<0.50					<0.50		
02/03/2005	<100	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50		-		ATTOR SELECTION OF THE SECOND	<0.50		C.
05/09/2005							Muhambaris Galbananis								
08/11/2005														-	

Table 2. Summary of Fuel Additives Analytical Data Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and		Concentrations in (μg/L)													
Sample Date	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	trans-1,2 cis-1,2		Oxygen	PCE	TCE	Footnotes
WGR-3 Cont.									WAY CO FEET AND CO						
11/18/2005															
02/01/2006	<300	<20	2.3	<0.50	<0.50	<0.50	<0.50 <0.50		<u> </u>				<0.50	-	e
5/30/2006															<b>. . .</b>
8/11/2006													-		g
11/2/2006															g
2/6/2007	<300	<20	4.4	<0.50	<0.50	0.58	<0.50	<0.50	<del></del>				<0.50		

#### SYMBOLS & ABBREVIATIONS:

- -- = Not analyzed/applicable/measured/available
- <= Not detected at or above the laboratory reporting limit
- 1,2-DCA = 1,2-Dichloroethane
- cis-1,2-DCE = cis-1,2-Dichloroethene
- DIPE = Di-isopropyl ether
- EDB = 1,2-Dibromoethane
- ETBE = Ethyl tert-butyl ether
- MTBE = Methyl tert-butyl ether
- PCE = Tetrachloroethene
- TAME = tert-Amyl methyl ether
- TBA = tert-Butyl alcohol
- TCE = Trichloroethene
- trans-1,2-DCE = trans 1,2-Dichloroethene
- VOC = Volatile organic compounds
- μg/L = Micrograms per Liter
- BTEX = Benzene, toluene, ethylbenzene and xylenes

#### FOOTNOTES:

- a = VOC 1,1 DCE detected at a concentration of 1.9 ug/L.
- b = VOC 1.2 DCA detected at a concentration of 3.2 ug/L.
- c = VOC Chlorobenzene detected at a concentration of 2.0 ug/L.
- d = Ethanol was re-analyzed two days out of holding time and was not detected above a laboratory reporting limit of 100 ug/L.
- e = Calibration verification for ethanol was within method limits but outside contract limits.
- f = Sample for PCE analyzed after holding time expired.
- g = Well sampled annually.
- h = Initial analysis within holding time but required dilution.

#### NOTES:

PCE was analyzed using EPA Method 8260B. Samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

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 #276, 10600 MacArthur Blvd., Oakland, CA

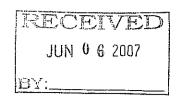
Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
12/17/2000	South-Southeast	0.003
12/28/2001	Southeast	0.002
11/27/2002	South-Southeast	0.003
7/22/2003	South	0.007
11/7/2003	Southwest	0.002
2/3/2004	South-Southwest	0.002
5/4/2004	South-Southwest	0.003
8/12/2004	South	0.004
11/10/2004	Southwest	0.004
2/3/2005	Southwest	0.003
5/9/2005	South-Southwest	0.004
8/11/2/005	South-Southwest	D.007
11/18/2005	Southwest	0.005
2/1/2006	Southwest	0.002
5/30/2006	South-Southwest	0.007
8/10/2006	South-Southwest	0.004
11/2/2006	South-Southwest	0.004
2/6/2007	South-Southwest	0.005
5/8/2007	South-Southwest	0.005

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

## APPENDIX A

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





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

May 31, 2007

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

Re:

Groundwater Sampling Data Package, BP Service Station No. 276, located at 10600 MacArthur Boulevard, California (Quarterly Monitoring performed on May 8, 2007)

#### **General Information**

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

Phone Number: (530) 676-6000

On-Site Supplier Representative: Jerry Gonzales

Date: May 8, 2007

Arrival: 12:45 Departure: 15:20

ditions: Closs

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 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 CINEL GEO

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

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) 676-60041, 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:

276	
Station #	
Oakland – 10600 MacArthur Blvd	ie .
Station Address	
Total Gallons Collected From Gro	oundwater Monitoring Wells:
	<i>D</i>
4-6	
A 11 17	4 01
Added Equipment Rinse Water5	Any Other Adjustments
Killise water	Adjustments
TOTAL GALS.	loaded onto
TOTAL GALS.  RECOVERED 5/	Doulos vehicle #
Same Duning H	
Stratus Project #	time date
	<u> 1530 518107</u>
Signature   Rug 6	7 .
*****	*****
RECEIVED AT	time date
	umo dato
BP 5786	
Unloaded by	
Signature	

# BP ALAMEDA PORTFOLIO

# HYDROLOGIC DATA SHEET

AR 12:45 109-15:20

Gauge Date: \_\_\_\_\_ Project Name: Oakland - 10600 MacArthur Blvd.

Field Technician: Jerry Project Number: 276

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)	
MV-1	13.26				38(5					
MW-Z	13:18			15,40	25,/1					
MW-3	1340			27.98						······································
MW-1 MW-3 MW-4 MW-5	13.38			27.40						
MIN-5				22/2	46.69					
MW-6	13:02			32.65						
mv-7	12:58			19.62	36.63					
MW-7 MW-8				25.35	47.78					1
	13:33			2277	4979					·
W 5 R-3	13:60			18.41	1				·	
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_	BP ALAMEDA PORTFO	OLIO
W	ATER SAMPLE FIELD DATA	A SHEET
PROJECT #: 276  CLIENT NAME:  LOCATION: Oakland - 10600 MacArthur	PURGED BY: JG SAMPLED BY: JG Blvd.	WELL I.D.: Marker - Z  SAMPLE I.D.: Marker - Z  QA SAMPLES:
DATE PURGED S-8-97  DATE SAMPLED S-8-97  SAMPLE TYPE: Groundwater x	START (2400hr) / / 3 / SAMPLE TIME (2400hr) / / Surface Water Tree	END (2400hr) 64:35  atment Effluent Other
CASING DIAMETER: 2"  Casing Volume: (gallons per foot) (0.17)	3" 4" 5" (0.38)	1.02) 6" 8" Other (1.50) (1.50) (2.60)
DEPTH TO BOTTOM (feet) = $\frac{2}{5}$ DEPTH TO WATER (feet) = $\frac{2}{5}$ WATER COLUMN HEIGHT (feet) = $\frac{2}{5}$	SA) CAI	SING VOLUME (gal) =
	FIELD MEASUREMENTS	,,,
DATE TIME VOLUME (2400hr) (gal)	TEMP. CONDUCTIVITY (degrees F) (umhos/cm)	pH COLOR TURBIDITY (visual) (NTU)
SAMPLE DEPTH TO WATER: 1590	SAMPLE INFORMATION	SAMPLE TURBIDITY:
80% RECHARGE: YES NO	ANALYSES: 5	work order
ODOR: SAMPLE VE		effec
PURGING EQUIPMENT  Bladder Pump Bailer (Te Centrifugal Pump Builer (Pt Submersible Pump Bailer (Str Peristalic Pump Dedicated Other:  Pump Depth:	VC) Centrifuga ainless Steel) Submersib	al Pump Bailer ( PVC or disposable)  Bailer (Stainless Steel)
WELL INTEGRITY:  REMARKS: D.O - O. 89		LOCK#: //
SIGNATURE: 17		Page of

BP ALAMEDA PORTFOLIO	
WATER SAMPLE FIELD DATA SHEET	
PROJECT #: 276 PURGED BY: 5 WELL I.D.: MW. 5  CLIENT NAME: SAMPLED BY: 5 SAMPLE I.D.: MW. 5  LOCATION: Oakland - 10600 MacArthur Blvd. QA SAMPLES:	
DATE PURGED 5-8-07 START (2400hr) 17-19 END (2400hr) 2450  DATE SAMPLED 5-8-7 SAMPLE TIME (2400hr) 19:50  SAMPLE TYPE: Groundwater x Surface Water Treatment Effluent Other	
CASING DIAMETER: 2" 3" 4" 5" 6" 8" Other Casing Volume: (gallons per foot) (0.17) (0.38) (0.38)	)
DEPTH TO BOTTOM (feet) = $\frac{1}{6}$ , $\frac{6}{6}$ CASING VOLUME (gal) = $\frac{1}{6}$ DEPTH TO WATER (feet) = $\frac{27.12}{2}$ CALCULATED PURGE (gal) = $\frac{1}{6}$ WATER COLUMN HEIGHT (feet) = ACTUAL PURGE (gal) =	
FIELD MEASUREMENTS	
DATE TIME VOLUME TEMP. CONDUCTIVITY pH COLOR TURBIDIT (agn) (agn) (degrees F) (unhos/em) (units) (visual) (ntu)	
80% RECHARGE: YES NO ANALYSES: See work orders  ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 Vag-14 &	
PURGING EQUIPMENT  Bladder Pump Bailer (Teflon) Centrifugal Pump Bailer (PVC) Submersible Pump Bailer (Stainless Steel) Peristalic Pump Dedicated  Other:  Pump Depth:  SAMPLING EQUIPMENT  SAMPLING EQUIPMENT  Bailer (Teflon) Centrifugal Pump Bailer (Teflon) Centrifugal Pump Bailer (Teflon) Centrifugal Pump Bailer (Teflon) Centrifugal Pump Bailer (PVC or or disposated) Submersible Pump Peristalic Pump Dedicated  Other:	sable)
WELL INTEGRITY: 500 LOCK#: NUMBER PARKS: DO 0.8-2	
SIGNATURE: Page of	

BP ALAMEDA	PORTFOLIO
WATER SAMPLE FI	IEŁD DATA SHEET
PROJECT #: 276 PURGED BY: C CLIENT NAME: SAMPLED BY: C LOCATION: Oakland - 10600 MacArthur Blvd.	SAMPLE I.D.: MUSTER SAMPLES:
DATE PURGED S-8-0 START (2400hr)  DATE SAMPLED S-8-0 SAMPLE TIME (2400hr)  SAMPLE TYPE: Groundwater x Surface Water	1 4:07 END (2400hr) 14:18  ur) 14:20  Treatment Effluent Other
CASING DIAMETER: 2" 3" 4" Cosing Volume: (gallons per foot) (0.17) (0.38)	5" 6" 8" Other (1.02) (1.50) (2.60)
DEPTH TO BOTTOM (feet) = $\frac{47.76}{25.35}$ WATER COLUMN HEIGHT (feet) = $\frac{7.76}{25.35}$	CASING VOLUME (gal) =
FIELD MEAS	UREMENTS
DATE TIME VOLUME TEMP. CO (2400hr) (gal) (degrees F)	NDUCTIVITY pH COLOR TURBIDITY (umhos/cm) (units) (visual) (NTU)  6 2 6, 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
80% RECHARGE: YES NO ANALYSE:  ODOR: 16 SAMPLE VESSEL / PRESERVATIVE	s: <u>see work order</u> : 6 Vou-HCC
PURGING EQUIPMENT	SAMPLING EQUIPMENT
Bladder Pump  Centrifugal Pump  Submersible Pump  Peristalic Pump  Other:  Pump Depth:	Bladder Pump Centrifugal Pump Bailer (Teflon) Bailer (PVC or disposable) Submersible Pump Peristalic Pump Dedicated Other:
WELL INTEGRITY: 5000 REMARKS: DO 1.35	LOCK#: Mast
SIGNATURE:	Pageof

# **Wellhead Observation Form**

Account:		
Sampled by:	Date:	The state of the s

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
mort	4	11	N	./	1	4	11	N		
W-2	4	N	N	M	1	'N	N	N		
Mer 3	y	N	N	أسلم	كممس أمو	water and a	man market	· Market		
Allery	4	port de la constitución de la co	1000 11000	ne l'Alexandre	A.S.	de	المواقع المواق			
MM-5	4	N	4	4				A		
Aller Co	4	1	4	15	~	$\sim$	N/	good and a		
Menery	$\mathscr{C}$	N	N	· 11	N	11	سنه بعمود	"مماهم		
Marie	4	W,	N	11	potentia	N	1	N		
Run-1	4	N	N	1	1	A	p. P.	همايم		
W663	4	N	4	01	$\overline{\mathcal{M}}$	1	سب آس	port man or		
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Chair CC 4 L D			Page_1 of _1
Chain of Custody Record		On-site Time: 12.45	Temp: 80
Project Name: BP 276	_	Off-site Time: 15:20	Temp: 8.5
BP BU/AR Region/Enfos Segment:	BP > Americas > West > Retail > CA > Alameda>276	Sky Conditions:	
State or Lead Regulatory Agency:	(	Meteorological Events:	
Requested Due Date	(mm/aa/yy):	Wind Speed:	Direction;

Lab	Name: TestAmerica						BP/AR Facility N	lo ·		276						-		===	7										
_	lress: 885 Jarvis Drive	···-																	Consultant/Contractor: Stratus Environmental, Inc.										
_	gan Hill, CA 95937						Site Lat/Long:	ume	35,	11	บอบยา	VIACA	rtnu	ır Bl	vd.,	Oak	land		Add	ress:					ron Park I		uite 550		
,	PM: Lisa Race						California Global	ID #		raza.	0100								-	Cameron Park, CA 95682									
Tele	/Fax: 408-782-8156 408-782-630	08 (fax)					Enfos Project No.				0108. 0-001					·				Consultant/Contractor Project No.: E276-04									
	AR PM Contact: Paul Supple					<b>─</b>														Consultant/Contractor PM: Jay Johnson									
_	ress: 2010 Crow Canyon Place, Sui	ite 150					Dhora/WDC.								ا	Tele/Fax: (530) 676-6000 / (530) 676-6005													
	San Ramon, CA	150				∦-	Sub Phase/Task:					_				-				Report Type & QC Level: Level 1 with EDF									
Tele/	/Fax: 925-275-3506																					@stratus	inc.net	<u>[</u>					
	Bottle Order No:			7	Mı	atrix	I I I I I I I I I I I I I I I I I I I										c Ric	hfie	d Co.										
Item No.	Sample Description	Тіме	Date	Soil/Solid	ij		Laboratory No.	No. of Containers	S				anol		GRO/BTEX/0xy*	ЕОВ	1,2 DCA	Sthanol by 8260	T	sted Analysis 01000					Sam Commen = MTBE,	ng and * DIPE,	Oxy		
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2	MW-5	1950			х		1	6		╁	+-	<del> </del>			$\overline{}$	1	1		X	-	-		-						
	MW-8	142c		╟─							-	X		<u> </u>	X	X	X	X	X	-	_		_						
		<del>   </del>			Х	<del>                                     </del>	<b></b>	6		$\perp$	-	X			X	X	X	X ·	X		ŀ	-	-						
	TB 276 - 5 807	500		<u> </u>	X			2	1			$ _{\mathbf{X}}$			X	x	x	х	$ _{\mathbf{X}}$				$\Box$		HOLD				_
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- 11					$\dashv$		<del> </del>	₩		ļ	ļ																		
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9																					1	_	1	1			-		$\dashv$
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amp	oler's Name: Jerry 60	عيم هي لسد	[ e,	<u> </u>	=		Reling	laba	. D.	/ 4.60	711-41-		1	╼╬										[					
amp	eler's Company: Desce 105	1= 21	<del>-</del>				A Reinig	ursne	цву	/ All	IHRTIO	n			Dr		Tip	:	<u> </u>		Ac	cepte	ed By	- <u>/</u> Ai	ffiliation		Date	Ti	me
	nent Date:				—		Jan Comme		<u> </u>				:2/	101	<i>0</i> =		1.31	2	7-1		<u></u>	2	<u>, //-</u>	77	5rl 5	ગળાટ	耳	13	15
hipment Method:																							_						
hipment Tracking No:																													
pecial Instructions: Please cc results to: rmiller@broadbent							roadbenting com																				<u></u>		
	Custody Seals In Place: Yes / No																· -												$\exists$
		<u> </u>	Temp	DIRL	ıK. )	ies/N	lo   Cooler	emp	on	Rec	eipt:		°F/	C		Tr	р В	ank:	Yes	No			MS/I	MSI	) Sample (	Submit	ted: Yes	/ No	

Atlantic Algorite de Company

A BP affiliated company



30 May, 2007

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

RE: ARCO #0276, Oakland, CA

Work Order: MQE0419

Enclosed are the results of analyses for samples received by the laboratory on 05/09/07 20:45. 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: ARC	.CO #0276, Oakland, CA	MQE0419
3330 Cameron Park Dr., Suite 550	Project Number: G0C	C20-0014	Reported:
Cameron Park CA, 95682	Project Manager: Jay J	Johnson	05/30/07 15:57

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	
MW-2	MQE0419-01	Water	05/08/07 14:35	05/09/07 20:45	
MW-5	MQE0419-02	Water	05/08/07 14:50	05/09/07 20:45	
MW-8	MQE0419-03	Water	05/08/07 14:20	05/09/07 20:45	
TB 276-5807	MQE0419-04	Water	05/08/07 05:00	05/09/07 20:45	

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





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

Project: ARCO #0276, Oakland, CA

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (MQE0419-01) Water Sampled:	05/08/07 14:35	Received:	05/09/07 2	 )5/09/07 20:45					!
Gasoline Range Organics (C4-C12)	140	50	ug/l	1	7E18046	05/18/07	05/18/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		113 %	60-12	5	ıı	ır	п	11	
Surrogate: Dibromofluoromethane		109 %	75-12	0	п	11	n	II	
Surrogate: Toluene-d8		104 %	80-12	0	n	11	n	n	
Surrogate: 4-Bromofluorobenzene		95 %	60-13	5	n	11	n	II	
MW-5 (MQE0419-02) Water Sampled:	05/08/07 14:50	Received:	05/09/07 2	D:45					
Gasoline Range Organics (C4-C12)	130	100	ug/l	2	7E18046	05/18/07	05/19/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		117 %	60-12	5	n	ıt	n	ıı	
Surrogate: Dibromofluoromethane		114%	75-12	0	n	17	n	řř.	
Surrogate: Toluene-d8		103 %	80-12	0	n	"	n	"	
Surrogate: 4-Bromofluorobenzene		98 %	60-13	5	n	11	n	rr .	
MW-8 (MQE0419-03) Water Sampled:	05/08/07 14:20	Received:	05/09/07 2	D:45					
Gasoline Range Organics (C4-C12)	440	50	ug/l	1	7E19016	05/19/07	05/19/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		100 %	60-12	5	tt	11	"	Ir	
Surrogate: Dibromofluoromethane		102 %	75-12	0	**	н	п	"	
Surrogate: Toluene-d8		98 %	80-12	0	"	n	"	"	
Surrogate: 4-Bromofluorobenzene		94 %	60-13	5	n	"	"	"	





Project: ARCO #0276, Oakland, CA

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (MQE0419-01) Water	Sampled: 05/08/07 14:35	Received:	05/09/07 2	20:45					
tert-Amyl methyl ether	5.4	0.50	ug/l	1	7E18046	05/18/07	05/18/07	EPA 8260B	
Benzene	ND	0.50	Ħ	ıt	н	"	11		
tert-Butyl alcohol	ND	20	п	14	11	"	11	II.	
Di-isopropyl ether	ND	0.50	н	14	17	и	μ	ıı	
1,2-Dibromoethane (EDB)	ND	0.50	II	If	H	II	II	II.	
1,2-Dichloroethane	ND	0.50	II	п	11	И	#1	lt	
Ethanol	ND	300	U	N	11	h	Ħ	H	
Ethyl tert-butyl ether	ND	0.50	U	н	14	11	Ħ	н	
Ethylbenzene	ND	0.50	11	н	и	n	H	И	
Methyl tert-butyl ether	25	0.50	19	**	11	41	н	И	
Toluene	ND	0.50	It	łı	Ħ	ti	D	н	
Xylenes (total)	ND	0.50	н	Ħ	"	ti	IJ	n .	
Surrogate: Dibromofluoromethan	пе	109 %	75-12	20	n	"	n	"	
Surrogate: 1,2-Dichloroethane-d	14	113 %	60-12	25	ú	ı	μ	ır	
Surrogate: Toluene-d8		104 %	80-12	20	л	"	n	"	
Surrogate: 4-Bromofluorobenzen	ne	95 %	60-13	35	н	n	"	"	
MW-5 (MQE0419-02) Water		Received:	05/09/07 2	20:45					
tert-Amyl methyl ether	16	1.0	ug/l	2	7E18046	05/18/07	05/19/07	EPA 8260B	
Benzene	ND	1.0	*1	U	U	17	17	11	
tert-Butyl alcohol	ND	40	tı	O	0	17	19	11	
Di-isopropyl ether	ND	1.0	41	U	U	11	19	11	
1,2-Dibromoethane (EDB)	ND	1.0	+ı	D	u	ıı ı	O .	N	
1,2-Dichloroethane	8.6	1.0	ŧI.	0	II	ij	11	н	
Ethanol	ND	600	п	u	Ħ	U	U	н	
Ethyl tert-butyl ether	ND	1.0	н	Ű	tı.	U	U	и	
Ethylbenzene	ND	1.0	И	U	*1	U	U	И	
Methyl tert-butyl ether	180	1.0	и	0	*1	0	0	If	
Toluene	ND	1.0	н	ti	Ħ	U	ti	H	
Xylenes (total)	ND	1.0	It	Ħ	11	u	IJ	)f	
Surrogate: Dibromofluoromethan	ne	114%	75-12	20	11	n	"	rr	
Surrogate: 1,2-Dichloroethane-d	14	117%	60-12	25	Jt	#	"	u	
Surrogate: Toluene-d8		103 %	80-12	20	n	"	"		
Surrogate: 4-Bromofluorobenzen	ne e	98 %	60-13	35	n	"	"	п	





Project: ARCO #0276, Oakland, CA

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

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

			U		•				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (MQE0419-03) Water 5	Sampled: 05/08/07 14:20	Received:	05/09/07 20	):45					
tert-Amyl methyl ether	35	0.50	ug/l	l	7E19016	05/19/07	05/19/07	EPA 8260B	
Benzene	ND	0.50	*1	17	11	II .	U	u	
tert-Butyl alcohol	ND	20	a	Iŧ	н	11	II	U	
Di-isopropyl ether	ND	0.50	ți	If	(I	<b>†1</b>	I)	0	
1,2-Dibromoethane (EDB)	ND	0.50	Ø	н	u	41	ij	II.	
1,2-Dichloroethane	1.9	0.50	Ø	ıı	II	п	n	ŋ	
Ethanol	ND	300	u	и	U	0	19	0	
Ethyl tert-butyl ether	ND	0.50	O	и	U	0	17	0	
Ethylbenzene	ND	0.50	D	н	U	(I	17	0	
Toluene	ND	0.50	ıi	и	Ð	9	H	U	
Xylenes (total)	ND	0.50	íi .	li	O	Û	I†	0	
Surrogate: Dibromofluoromethan	e	102 %	75-120	)	"	"	"	n	
Surrogate: 1,2-Dichloroethane-d4	!	100 %	60-123	5	n	11	"	n	
Surrogate: Toluene-d8		98 %	80-120	)	n	n	"	ıı	
Surrogate: 4-Bromofluorobenzene	!	94 %	60-135	ī	"	n	"	n	
MW-8 (MQE0419-03RE1) Wate	er Sampled: 05/08/07 1	4:20 Rece	ived: 05/09/0	)7 <b>20:</b> 4:	5				CL
Methyl tert-butyl ether	490	5.0	ug/l	10	7E24006	05/24/07	05/24/07	EPA 8260B	
Surrogate: Dibromofluoromethan	e	95 %	75-120	)	11	II	1)	11	
Surrogate: 1,2-Dichloroethane-d4	!	97 %	60-12:	ī	11	IT	"	ti	
Surrogate: Toluene-d8		94 %	80-120	)	11	rr	и	rt	
Surrogate: 4-Bromofluorobenzene	!	92 %	60-13:	ī	"	11	"	**	





Project: ARCO #0276, Oakland, CA

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

## EPA 8010 list Volatile Organic Compounds by EPA 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (MQE0419-01) Water	Sampled: 05/08/07 14:35	Received:	05/09/07	20:45					
Tetrachloroethene	ND	0.50	ug/l		7E19016	05/19/07	05/19/07	EPA 8260B	
Surrogate: Dibromofluoromethan	e	101 %	75-1	20	"	"	11	11	
Surrogate: 1,2-Dichloroethane-d-	1	98 %	60-1	25	n	н	n	n	
Surrogate: Toluene-d8		100 %	80-1	20	"	"	II.	n	
Surrogate: 4-Bromofluorobenzene	2	96 %	60-1	35	ff	"	11	n	
MW-5 (MQE0419-02) Water	Sampled: 05/08/07 14:50	Received:	05/09/07	20:45					
Tetrachloroethene	9.0	0.50	ug/l	1	7E19016	05/19/07	05/19/07	EPA 8260B	
Surrogate: Dibromofluoromethan	e	101 %	75-1	20	n	11	11	"	
Surrogate: 1,2-Dichloroethane-d-	1	98 %	60-1	25	n	н	#	n .	
Surrogate: Toluene-d8		96 %	80-1	20	"	"	"	n .	
Surrogate: 4-Bromofluorobenzen	2	95 %	60-1	35	"	11	"	"	
MW-8 (MQE0419-03) Water	Sampled: 05/08/07 14:20	Received:	05/09/07	20:45					
Tetrachloroethene	9.0	0.50	ug/l	ì	7E19016	05/19/07	05/19/07	EPA 8260B	
Surrogate: Dibromofluoromethan	e	102 %	75-1	20	rt	11	T t	IT	
Surrogate: 1,2-Dichloroethane-d-	<i>‡</i>	100 %	60-1	25	re	11	"	ıt	
Surrogate: Toluene-d8		98 %	80-1	20	п	п	Tr .	II	
Surrogate: 4-Bromofluorobenzen	2	94 %	60-1	35	u	11	"	II	





Project: ARCO #0276, Oakland, CA

Project Number: G0C20-0014
Project Manager: Jay Johnson

MQE0419 Reported: 05/30/07 15:57

# 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 7E18046 - EPA 5030B P/T /	LUFT CCMS									
Blank (7E18046-BLK1)	Berr Gemb			Prepared	& Analyze	ed: 05/18/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.90		n	2.50		116	60-125			
Surrogate: Dibromofluoromethane	2.75		v	2.50		110	75-120			
Surrogate: Toluene-d8	2.65		**	2.50		106	80-120			
Surrogate: 4-Bromofluorobenzene	2.44		л	2.50		98	60-135			
Laboratory Control Sample (7E18046	-BS2)			Prepared	& Analyze	ed: 05/18/	07			
Gasoline Range Organics (C4-C12)	397	50	ug/l	500		79	65-120		***************************************	****************
Surrogate: 1,2-Dichloroethane-d4	2.87		"	2.50	······	115	60-125			
Surrogate: Dibromofluoromethane	2.68		"	2.50		107	75-120			
Surrogate: Toluene-d8	2.72		#	2.50		109	80-120			
Surrogate: 4-Bromofluorobenzene	2.72		"	2.50		109	60-135			
Laboratory Control Sample Dup (7E1	8046-BSD2)			Prepared	& Analyze	ed: 05/18/	07			
Gasoline Range Organics (C4-C12)	402	50	ug/l	500		80	65-120	1	20	
Surrogate: 1,2-Dichloroethane-d4	2,94		п	2.50		118	60-125			
Surrogate: Dibromofluoromethane	2,77		**	2.50		111	75-120			
Surrogate: Toluene-d8	2.76		n	2.50		110	80-120			
Surrogate: 4-Bromofluorobenzene	2.66		n	2.50		106	60-135			
Batch 7E19016 - EPA 5030B P/T /	LUFT GCMS									
Blank (7E19016-BLK1)				Prepared	& Analyze	ed: 05/19/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.41		,,	2,50		96	60-125			
Surrogate: Dibromofluoromethane	2.48		17	2.50		99	75-120			
Surrogate: Toluene-d8	2.50		ır	2,50		100	80-120			
Surrogate: 4-Bromofluorobenzene	2.31		tf	2.50		92	60-135			





Project: ARCO #0276, Oakland, CA

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

# 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 7E19016 -	IP D.A.	5020D	D/T'/I	TITET A	CORRE
- Batch /E.Tyuth -	H.P.A.	5030K	P/ I / I		-CIVIN

Laboratory Control Sample (7E19016-	BS2)			Prepared & Ar	nalyzed: 05/19/	07			
Gasoline Range Organics (C4-C12)	496	50	ug/l	500	99	65-120			
Surrogate: 1,2-Dichloroethane-d4	2.51		u	2.50	100	60-125		*************	***************************************
Surrogate: Dibromofluoromethane	2.55		n	2,50	102	75-120			
Surrogate: Toluene-d8	2.60		r	2.50	104	80-120			
Surrogate: 4-Bromofluorobenzene	2.45		н	2,50	98	60-135			
Laboratory Control Sample Dup (7E19	016-BSD2)			Prepared & Ar	nalyzed: 05/19/	07			
Gasoline Range Organics (C4-C12)	489	50	ид/1	500	98	65-120	1	20	
Surrogate: 1,2-Dichloroethane-d4	2.42	***************************************	11	2.50	97	60-125			
Surrogate: Dibromofluoromethane	2.48		**	2.50	99	75-120			
Surrogate: Toluene-d8	2.56		"	2.50	102	80-120			
Surrogate: 4-Bromofluorobenzene	2.44		tt	2.50	98	60-135			





Analyte

Project: ARCO #0276, Oakland, CA

Spike

Level

10.0

200

10,0

10.0

10.0

10.0

30.0

2.50

2,50

2.50

2,50

Source

Result

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

Notes

RPD

Limit

RPD

%REC

Limits

%REC

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

Units

Reporting

Limit

Result

10.2

159

8.82

9.97

9.99

9.86

30.4

2.78

2.84

2.61

2.78

0.50

300

0.50

0.50

0.50

0.50

0.50

renzene ND 0.50 ug/l renzene ND 0.50 ug/l renzene ND 0.50 " renzen	Batch 7E18046 - EPA 5030B P/T / EPA 8	260B						<u> </u>	
enzene ND 0.50 " en-Butyl alcohol ND 20 " en-Butyl alcohol ND 0.50 " en-Butyl alcohol ND 0.50 " en-Butyl alcohol ND 0.50 " en-Butyl ether ND 0.50 " en-Butyl ether ND 0.50 " en-Butyl tert-butyl ether ND 0.50 " enthyl tert-butyl ether ND 0.50 " entrogate: Dibromofluoromethane 2.75 " 2.50 110 75-120 entrogate: 1,2-Dichloroethane-d4 2.90 " 2.50 116 60-125 entrogate: 4-Bromofluorobenzene 2.44 " 2.50 98 60-135 entrogate: 4-Bromofluorobenzene 2.44 " 2.50 98 60-135 entrogate: 4-Bromofluorobenzene 2.44 " 2.50 98 60-135 entrogate: 4-Bromofluorobenzene 2.55 " 2.50	Blank (7E18046-BLK1)				Prepared & Ar	nalyzed: 05/18/	07		
Section   ND   20	tert-Amyl methyl ether	ND	0.50	ug/l					
ND   0.50   "	Benzene	ND	0.50	†1					
ND   0.50	tert-Butyl alcohol	ND	20	ti.					
ND   0.50   "	Di-isopropyl ether	ND	0.50	•					
ND   300   "	1,2-Dibromoethane (EDB)	ND	0.50	ø					
thyl tert-butyl ether ND 0.50 " thyl tert-butyl ether ND 0.50 " thylbenzene ND 0.50 " thylones (total) ND 0.50 " turrogate: Dibromofluoromethane 2.75 " 2.50 110 75-120 turrogate: 1,2-Dichloroethane-d4 2.90 " 2.50 116 60-125 turrogate: Toluene-d8 2.65 " 2.50 106 80-120 turrogate: 4-Bromofluorobenzene 2.44 " 2.50 98 60-135 turrogate: 4-Bromofluorobenzene 2.44 " 2.50 98 60-135 turrogate: 4-Bromofluorobenzene 9.40 0.50 ug/l 10.0 94 65-135 tenzene 9.56 0.50 " 10.0 96 75-120 turt-Butyl alcohol 186 20 " 200 93 60-135 tolicisopropyl ether 8.02 0.50 " 10.0 80 70-130	1,2-Dichlorocthane	ND	0.50	ti.					
thylbenzene ND 0.50 " thylbenzene ND 0.50 " thylbenzene ND 0.50 " toluene ND 0.50 " tylenes (total) ND 0.50 " turrogate: Dibromofluoromethane 2.75 " 2.50 110 75-120 turrogate: 1,2-Dichloroethane-d4 2.90 " 2.50 116 60-125 turrogate: Toluene-d8 2.65 " 2.50 106 80-120 turrogate: 4-Bromofluorobenzene 2.44 " 2.50 98 60-135 turrogate: 4-Bromofluorobenzene 2.44 " 2.50 98 60-13	Ethanol	ND	300	0					
Actival terti-butyl ether	Ethyl tert-butyl ether	ND	0.50	n					
Solution   ND   0.50	Ethylbenzene	ND	0.50	"					
Sylenes (total)  ND  0.50  surrogate: Dibromofluoromethane  2.75  " 2.50  110  75-120  surrogate: 1,2-Dichloroethane-d4  2.90  " 2.50  116  60-125  surrogate: Toluene-d8  surrogate: 4-Bromofluorobenzene  2.44  " 2.50  98  60-135  suboratory Control Sample (7E18046-BS1)  Prepared & Analyzed: 05/18/07  sert-Amyl methyl ether  9.40  0.50  sug/l  10.0  94  65-135  senzene  9.56  0.50  " 10.0  96  75-120  sert-Butyl alcohol  186  20  " 200  93  60-135  sert-Butyl ether  8.02  0.50  " 10.0  80  70-130	Methyl tert-butyl ether	ND	0.50	q					
10	Toluene	ND	0.50	а					
### 2.50	Xylenes (total)	ND	0.50	0					
### 2.50   106   80-120   ####################################	Surrogate: Dibromofluoromethane	2.75		33	2.50	110	75-120		
### 2.50 98 60-135 ####################################	Surrogate: 1,2-Dichloroethane-d4	2.90		11	2.50	116	60-125		
Ashoratory Control Sample (7E18046-BS1)  Prepared & Analyzed: 05/18/07  ent-Amyl methyl ether  9.40  0.50  ug/l  10.0  94  65-135  entzene  9.56  0.50  "  10.0  96  75-120  ent-Butyl alcohol  186  20  "  200  93  60-135  6i-isopropyl ether  8.02  0.50  "  10.0  80  70-130	Surrogate: Toluene-d8	2.65		"	2.50	106	80-120		
ert-Amyl methyl ether 9.40 0.50 ug/l 10.0 94 65-135 lenzene 9.56 0.50 " 10.0 96 75-120 ert-Butyl alcohol 186 20 " 200 93 60-135 bi-isopropyl ether 8.02 0.50 " 10.0 80 70-130	Surrogate: 4-Bromofluorobenzene	2.44		11	2.50	98	60-135		
Penzene 9.56 0.50 " 10.0 96 75-120 ent-Butyl alcohol 186 20 " 200 93 60-135 ent-Butyl ether 8.02 0.50 " 10.0 80 70-130	Laboratory Control Sample (7E18046-BS1)				Prepared & Ar	nalyzed: 05/18/	07		
ert-Butyl alcohol 186 20 " 200 93 60-135 0i-isopropyl ether 8.02 0.50 " 10.0 80 70-130	tert-Amyl methyl ether	9.40	0.50	ug/l	10.0	94	65-135		
oi-isopropyl ether 8.02 0.50 " 10.0 80 70-130	Веплепе	9.56	0.50	ıı	0.01	96	75-120		
The state of the s	tert-Butyl alcohol	186	20	н	200	93	60-135		
.2-Dibromoethane (EDB) 10.5 0.50 " 10.0 105 80-135	Di-isopropyl ether	8.02	0.50	п	10.0	80	70-130		
	1,2-Dibromoethane (EDB)	10.5	0.50	н	10.0	105	80-135		

1.2-Dichloroethane

Ethyl tert-butyl ether

Methyl tert-butyl ether

Surrogate: Toluene-d8

Surrogate: Dibromofluoromethane

Surrogate: 1,2-Dichloroethane-d4

Surrogate: 4-Bromofluorobenzene

Ethylbenzene

Xylenes (total)

Ethanol

Toluene

102

80

88

100

100

99

101

III

114

104

III

70-125

15-150

65-130

75-120

50-140

75-120

75-120

75-120

60-125

80-120

60-135





Project: ARCO #0276, Oakland, CA

Spike

Source

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

RPD

%REC

### 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 7E18046 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7E18046-MS1)	Source: M	QE0419-01		Prepared:	05/18/07	Analyzed	: 05/19/07			
tert-Amyl methyl ether	17.4	0,50	ug/l	10.0	5.4	120	65-135			
Benzene	11.4	0.50	**	10.0	ND	114	75-120			
tert-Butyl alcohol	233	20	0	200	ND	116	60-135			
Di-isopropyl ether	10.0	0.50	tt.	10.0	ND	100	70-130			
1,2-Dibromoethane (EDB)	13.4	0.50		10.0	ND	134	80-135			
1,2-Dichloroethane	13.0	0,50	H	10.0	ND	130	70-125			LN
Ethanol	234	300	u	200	ND	117	15-150			
Ethyl tert-butyl ether	11.1	0.50	n	10.0	ND	111	65-130			
Ethylbenzene	11.8	0.50	**	10.0	ND	118	75-120			
Methyl tert-butyl ether	37.5	0.50	n	10.0	25	125	50-140			
Toluene	11.8	0.50	н	10.0	ND	118	75-120			
Xylenes (total)	35.7	0.50	ıı	30.0	ND	119	75-120			
Surrogate: Dibromofluoromethane	2,84		11	2.50		114	75-120	***************************************		
Surrogate: 1,2-Dichloroethane-d4	2.92		rr	2.50		117	60-125			
Surrogate: Toluene-d8	2.64		"	2.50		106	80-120			
Surrogate: 4-Bromofluorobenzene	2.61		rt	2.50		104	60-135			
Matrix Spike Dup (7E18046-MSD1)	Source: M	QE0419-01		Prepared:	05/18/07	Analyzed	1: 05/19/07			
tert-Amyl methyl ether	18.3	0.50	ug/l	10.0	5.4	129	65-135	5	25	
Benzene	11.6	0.50	и	10.0	ND	116	75-120	2	20	
tert-Butyl alcohol	232	20	"	200	ND	116	60-135	0.4	25	
Di-isopropyl ether	10.2	0.50	н	10.0	ND	102	70-130	2	25	
1,2-Dibromoethane (EDB)	13.6	0.50	и	10.0	ND	136	80-135	I	30	LN
1,2-Dichloroethane	13.2	0.50	п	10.0	ND	132	70-125	2	25	LN
Ethanol	210	300	'n	200	ND	105	15-150	11	25	
Ethyl tert-butyl ether	11.2	0.50	н	10.0	ND	112	65-130	0.9	25	
Ethylbenzene	11.8	0.50	и	10.0	ND	118	75-120	0	20	
Methyl tert-butyl ether	38.2	0.50	н	10.0	25	132	50-140	2	25	
Toluene	12.0	0.50	11	10.0	ND	120	75-120	2	25	
Xylenes (total)	35.8	0.50	п	30.0	ND	119	75-120	0.3	20	
Surrogate: Dibromofluoromethane	2.86		n	2.50		114	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.90		"	2.50		116	60-125			
Surrogate: Toluene-d8	2.70		**	2.50		108	80-120			
Surrogate: 4-Bromofluorobenzene	2.76		"	2.50		110	60-135			





Project: ARCO #0276, Oakland, CA

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (7E19016-BLK1)				Prepared & An	alyzed: 05/19/	07	
tert-Amyl methyl ether	ND	0.50	น <u>ย</u> /1	•			
Benzene	ND	0.50	Ħ				
tert-Butyl alcohol	ND	20	tl				
Di-isopropyl ether	ND	0.50	Ħ				
1,2-Dibromoethane (EDB)	ND	0.50	#1				
1,2-Dichloroethane	ND	0.50	11				
Ethanol	ND	300	#1				
Ethyl tert-butyl ether	ND	0.50	H				
Ethylbenzene	ND	0.50	tt				
Methyl tert-butyl ether	ND	0.50	н				
Toluene	ND	0.50	U				
Xylenes (total)	ND	0.50	11				
Surrogate: Dibromofluoromethane	2.48		n	2.50	99	75-120	
Surrogate: 1,2-Dichloroethane-d4	2.41		"	2.50	96	75-120	
Surrogate: Toluene-d8	2.50		"	2.50	100	80-120	
Surrogate: 4-Bromofluorobenzene	2.31		"	2.50	92	60-135	
Laboratory Control Sample (7E19016	-BS1)			Prepared & An	alyzed: 05/19/	07	
tert-Amyl methyl ether	9,50	0.50	ug/l	10.0	95	65-135	
Benzene	10.5	0.50	п	10.0	105	75-120	
tert-Butyl alcohol	168	20	п	200	84	60-135	
Di-isopropyl ether	9.94	0.50	н	10.0	99	70-130	
1,2-Dibromoethane (EDB)	10.4	0.50	н	10.0	104	80-135	
1,2-Dichloroethane	9.84	0.50	н	10.0	98	70-125	
Ethanol	201	300	h	200	100	15-150	
Ethyl tert-butyl ether	9.86	0.50	11	10.0	99	65-130	
Ethylbenzene	10.2	0.50	и	10.0	102	75-120	
Methyl tert-butyl ether	9.40	0.50		10.0	94	50-140	
Toluene	10.8	0.50	н	10.0	108	75-120	
Xylenes (total)	30.5	0.50	It	30.0	102	75-120	
Surrogate: Dibromofluoromethane	2.55		"	2.50	102	75-120	
Surrogate: 1,2-Dichloroethane-d4	2.36		"	2,50	94	60-125	
Surrogate: Toluene-d8	2,58		**	2,50	103	80-120	
Surrogate: 4-Bromofluorobenzene	2.48		**	2,50	99	60-135	





Project: ARCO #0276, Oakland, CA

Spike

Source

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

RPD

%REC

### 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 7E19016 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7E19016-MS1)	Source: MQ	E0436-02		Prepared	& Analyze	ed: 05/19/0	07			
tert-Amyl methyl ether	10.5	0.50	ug/l	10,0	ND	105	65-135			
Benzene	11.2	0.50	14	10.0	ND	112	75-120			
ert-Butyl alcohol	185	20	If	200	ND	92	60-135			
Di-isopropyl ether	10.8	0.50	н	10.0	ND	108	70-130			
1,2-Dibromoethane (EDB)	11.7	0.50	н	10.0	ND	117	80-135			
,2-Dichloroethane	10.8	0.50	μ	10.0	ND	108	70-125			
Ethanol	211	300	Ħ	200	ND	106	15-150			
Ethyl tert-butyl ether	11,0	0.50	ŧı	10.0	ND	110	65-130			
Ethylbenzene	10.9	0.50	ti	10.0	ND	109	75-120			
Methyl tert-butyl ether	14.5	0.50	H	10.0	3.2	113	50-140			
<b>Foluene</b>	11.5	0.50	u	0.01	ND	115	75-120			
Xylenes (total)	32.6	0.50	ıı	30.0	ND	109	75-120			
Surrogate: Dibromofluoromethane	2.53	***************************************	,,	2,50		101	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.48		"	2.50		99	75-120			
Surrogate: Toluene-d8	2.52		"	2.50		101	80-120			
Surrogate: 4-Bromofluorobenzene	2.55		n	2.50		102	60-135			
Matrix Spike Dup (7E19016-MSD1)	Source: MQ	E0436-02		Prepared	& Analyze	d: 05/19/0	07			
ert-Amyl methyl ether	9.92	0.50	ug/l	0.01	ND	99	65-135	6	25	
Benzene	11.1	0.50	Ø	10.0	ND	111	75-120	0.9	20	
ert-Butyl alcohol	182	20	n	200	ND	91	60-135	2	25	
Di-isopropyl ether	10.6	0,50	"	10.0	ND	106	70-130	2	25	
,2-Dibromoethane (EDB)	11.7	0.50	+1	0,01	ND	117	80-135	0	30	
,2-Dichloroethane	10.8	0.50	Ħ	10.0	ND	108	70-125	0	25	
Ethanol	192	300	11	200	ND	96	15-150	9	25	
Ethyl tert-butyl ether	10.8	0.50	11	10,0	ND	108	65-130	2	25	
Ethylbenzene	10.7	0.50	11	10.0	ND	107	75-120	2	20	
Methyl tert-butyl ether	14.2	0.50	41	10.0	3.2	110	50-140	2	25	
roluene – – – – – – – – – – – – – – – – – –	11.2	0.50	11	10,0	ND	112	75-120	3	25	
Xylenes (total)	32.2	0.50	11	30.0	ND	107	75-120	1	20	
Surrogate: Dibromofluoromethane	2.57	***************************************	н	2.50		103	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.47		"	2,50		99	75-120			
Surrogate: Toluene-d8	2,52		11	2,50		101	80-120			
Surrogate: 4-Bromofluorobenzene	2.61		11	2.50		104	60-135			





Project: ARCO #0276, Oakland, CA

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

### 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 7E24006 - EPA 5030B P/T	/ EPA 8260B									
Blank (7E24006-BLK1)				Prepared	& Analyze	ed: 05/24/	07			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0,50	It							
tert-Butyl alcohol	ND	20	ıı							
Di-isopropyl ether	ND	0.50	ii							
1,2-Dibromoethane (EDB)	ND	0.50	ıı							
1,2-Dichloroethane	ND	0.50	и							
Ethanol	ND	300	Ħ							
Ethyl tert-butyl ether	ND	0.50	Ħ							
Ethylbenzene	ND	0.50	**							
Methyl tert-butyl ether	ND	0.50	п							
Toluene	ND	0.50	Ħ							
Xylenes (total)	ND	0.50	11							
Surrogate: Dibromofluoromethane	2.23	,	11	2.50		89	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.17		II	2.50		87	60-125			
Surrogate: Toluene-d8	2.33		11	2.50		93	80-120			
Surrogate: 4-Bromofluorobenzene	2.18		"	2.50		87	60-135			
Laboratory Control Sample (7E24000	5-BS1)			Prepared	& Analyze	ed: 05/24/	07			
tert-Amyl methyl ether	9.31	0.50	ug/l	10.0		93	65-135			
Benzene	9.16	0.50	н	10.0		92	75-120			
ert-Butyl alcohol	205	20	и	200		102	60-135			
Di-isopropyl ether	8.83	0.50	и	10.0		88	70-130			
1,2-Dibromoethane (EDB)	9.99	0.50	и	10.0		100	80-135			
1,2-Dichloroethane	9,44	0.50	и	10.0		94	70-125			
Ethanol	212	300	н	200		106	15-150			
Ethyl tert-butyl ether	9.34	0.50	н	10.0		93	65-130			
Ethylbenzene	9.82	0.50	11	10.0		98	75-120			
Methyl tert-butyl ether	9.37	0.50	11	10.0		94	50-140			
Гоluene	10.1	0.50	41	10.0		101	75-120			
Xylenes (total)	29.4	0.50	*1	30.0		98	75-120			
Surrogate: Dibromofluoromethane	2.31		11	2.50		92	75-120	***************************************		·
Surrogate: 1,2-Dichloroethane-d4	2.34		"	2.50		94	60-125			
Surrogate: Toluene-d8	2.30		11	2.50		92	80-120			
Surrogate: 4-Bromofluorobenzene	2.44		"	2.50		98	60-135			





Project: ARCO #0276, Oakland, CA

Spike

Source

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

RPD

%REC

### 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 7E24006 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7E24006-MS1)	Source: M	QE0636-10		Prepared a	& Analyze	d: 05/24/0	)7			
tert-Amyl methyl ether	10.5	0.50	ug/l	10.0	ND	105	65-135			
Benzene	9.69	0.50	н	10.0	ND	97	75-120			
tert-Butyl alcohol	187	20	If	200	ND	94	60-135			
Di-isopropyl ether	9.83	0.50	н	10.0	ND	98	70-130			
1,2-Dibromoethane (EDB)	10.8	0.50	и	10.0	ND	108	80-135			
,2-Dichloroethane	10.5	0.50	и	10.0	ND	105	70-125			
Ethanol	198	300	lf .	200	ND	99	15-150			
Ethyl tert-butyl ether	10.4	0.50	It	10.0	ND	104	65-130			
Ethylbenzene	9.27	0.50	tt.	10.0	ND	93	75-120			
Methyl tert-butyl ether	10.5	0.50	ti.	10.0	ND	105	50-140			
l'oluene	10.5	0.50	tt	10.0	ND	105	75-120			
Kylenes (total)	28.3	0.50	ti	30.0	ND	94	75-120			
Surrogate: Dibromofluoromethane	2.40		11	2,50		96	75-120			
urrogate: 1,2-Dichloroethane-d4	2.57		n	2.50		103	60-125			
Surrogate: Toluene-d8	2.31		"	2.50		92	80-120			
Surrogate: 4-Bromofluorobenzene	2.47		ıı	2.50		99	60-135			
Matrix Spike Dup (7E24006-MSD1)	Source: M	QE0636-10		Prepared	& Analyze	d: 05/24/0	)7			
ert-Amyl methyl ether	10.7	0.50	ug/i	10.0	ND	107	65-135	2	25	
Benzene	9.76	0.50	9	10.0	ND	98	75-120	0.7	20	
ert-Butyl alcohol	193	20	н	200	ND	96	60-135	3	25	
Di-isopropyl ether	9.54	0.50	0	10.0	ND	95	70-130	3	25	
,2-Dibromoethane (EDB)	10.5	0.50	0	10.0	ND	105	80-135	3	30	
,2-Dichloroethane	10.8	0.50	0	10.0	ND	108	70-125	3	25	
Ethanol	159	300	0	200	ND	80	15-150	22	25	
Ethyl tert-butyl ether	10.2	0.50	0	10.0	ND	102	65-130	2	25	
Ethylbenzene	10.2	0,50	H	10.0	ND	102	75-120	10	20	
Methyl tert-butyl ether	10.5	0.50	н	10.0	ND	105	50-140	0	25	
<b>Foluene</b>	10.7	0.50	e	10.0	ND	107	75-120	2	25	
Kylenes (total)	31.6	0.50	ti	30.0	ND	105	75-120	11	20	
Surrogate: Dibromofluoromethane	2.31		Ħ	2.50		92	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.38		n	2.50		95	60-125			
Surrogate: Toluene-d8	2.34		"	2.50		94	80-120			
Surragate: 4-Bromofluorobenzene	2.46		II	2.50		98	60-135			





Project: ARCO #0276, Oakland, CA

Spike

Source

Project Number: G0C20-0014 Project Manager: Jay Johnson MQE0419 Reported: 05/30/07 15:57

RPD

%REC

# EPA 8010 list Volatile Organic Compounds by EPA 8260B - Quality Control TestAmerica - Morgan Hill, CA

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7E19016 - EPA 5030B P/T / E	PA 8260B									
Blank (7E19016-BLK1)				Prepared	& Analyzo	ed: 05/19/	07			
Tetrachloroethene	ND	0.50	ug/l							
Surrogate: Dibromofluoromethane	2.48		IJ	2.50	***************************************	99	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.41		n	2,50		96	60-125			
Surrogate: Toluene-d8	2.50		"	2,50		100	80-120			
Surrogate: 4-Bromofluorobenzene	2.31		"	2,50		92	60-135			
Laboratory Control Sample (7E19016-E	BS1)			Prepared	& Analyz	ed: 05/19/	07			
Tetrachloroethene	10.9	0.50	ug/l	0.01		109	70-130			
Surrogate: Dibromofluoromethane	2.55		l)	2.50		102	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.36		и	2.50		94	60-125			
Surrogate: Toluene-d8	2.58		n	2.50		103	80-120			
Surrogate: 4-Bromofluorobenzene	2.48		n	2.50		99	60-135			
Matrix Spike (7E19016-MS1)	Source: MC	QE0436-02		Prepared .	& Analyze	ed: 05/19/	07			
Tetrachloroethene	11.3	0.50	ug/l	10.0	ND	113	70-130			
Surrogate: Dibromofluoromethane	2,53		"	2.50		101	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.48		11	2.50		99	60-125			
Surrogate: Toluene-d8	2,52		"	2.50		101	80-120			
Surrogate: 4-Bromofluorobenzene	2.55		"	2.50		102	60-135			
Matrix Spike Dup (7E19016-MSD1)	Source: M(	QE0436-02		Prepared	& Analyza	ed: 05/19/	07			
Tetrachloroethene	11.1	0.50	ug/l	0.01	ND	111	70-130	2	25	
Surrogate: Dibromofluoromethane	2.57		11	2.50		103	75-120	***************************************		***************************************
Surrogate: 1,2-Dichloroethane-d4	2.47		"	2.50		99	60-125			
Surrogate: Toluene-d8	2.52		"	2.50		101	80-120			
Surrogate: 4-Bromofluorobenzene	2.61		,,	2.50		104	60-135			





Stratus Environmental Inc. [Arco] Project: ARCO #0276, Oakland, CA MQE0419
3330 Cameron Park Dr., Suite 550 Project Number: G0C20-0014 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 05/30/07 15:57

### 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).
CL	Initial analysis within holding time but required dilution
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 Atlantic At

## Chain of Custody Record

Project Name: BP 276

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > CA > Alameda>276

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

A.	Page_1_of_1_
On-site Time: 12.45	Temp: 80
Off-site Time: 15:20	Temp: 8.5
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

	1	1											T	-							7
Lab Name: TestAmerica		BP/AR Facility No.			76									ultan					Stratus Environmenta		
Address: 885 Jarvis Drive	_	BP/AR Facility Add	iress		1060	0 Ma	cArt	hur Blv	'd.,	Oakl	and		Add	ess:					on Park Drive, Suit	a 550	
Morgan Hill, CA 95937	_	Site Lat/Long:															_		k, CA 95682		
Lab PM: Lisa Race	_	California Global II	)#:	Τ0	60010	08312							Cons	ultan	t/Con	itract	or Pro	oject	t No.: E276-04		
Tele/Fax: 408-782-8156 408-782-6308 (fax)		Enfos Project No.:		GOC	20-0	014							Cons	ultan	t/Con	itract	or PN	<b>1</b> :	Jay Johns	on	
BP/AR PM Contact: Paul Supple		Provision or RCOP	(cir	cle or	ne)	P	rovis	ion					Tele	Fax:	(	(530)	676	-60	00 / (530) 676-600	5	
Address: 2010 Crow Canyon Place, Suite 150		Phase/WBS:		04-1	<b>Monit</b>	oring							Repo	ort Ty	ре &	QC:	Level:	:	Level 1 w	ith EDF	
San Ramon, CA		Sub Phase/Task:		03-A	Analyt	tical							E-m	ail ED	D To	o: 5	shay	es(	@stratusinc.net		
Tele/Fax: 925-275-3506		Cost Element:		01-0	Contra	actor l	abor						Invo	ice to	Atla	antic	Rich	field	i Co.		
Lab Bottle Order No: Ma	ıtrix				Pı	reserv	ative	)				Requ	ested	Ana	lysis						
Item No.  Date  Soil/Solid  Water/Liquid	Air	Laboratory No.	No. of Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	FINO,	HCI	Methanol	GRO/BTEX/Oxv*	EDB	1,2 DCA	Ethanol by 8260	PCE by 8010						Sample Point I Comments = MTBE, TAME, F	_	*Oxy
1 MW-2 / 435 X		01	6				x		х	X	x	X	$\mathbf{x}$								
2 MW-5 1950 X	1	82	6				x		х	х	┪──		х							·	
3 MW-8 /92C X		50	6			_	x	-	x	_	<del></del>	1	х								
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Shipment Tracking No:									<u>L</u>		<u> </u>			$\mathcal{L}$			8			<u> </u>	<u> </u>
Special Instructions: Please co results to: m	niller@	broadbentinc.com																			
	<b></b>	· · · · ·			÷		<del> , c</del>						4	\ /2:		1			<b>SO 101</b>		
Custody Seals In Place: Yes / No   Temp Blank:	Yes/f	Vo)   Cooler	em	on o	Kece	eipt:	<u>ተ</u> ኒል	- F/C	)	1	гір Е	iank	:/Ye	)/N	)	<u> </u>	MS/I	MS	D Sample Submitte	:d: Yes/	NO J

## TEST AMERICA SAMPLE RECEIPT LOG

CLIENT MAME: BP / ARI REC. BY (PRINT) TLUEN WORKORDER: MQF0419	G	DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	5/9/07 2645 5/°12/	-				Alory Purposes? WATER YES / NO
CIRCLE THE APPROPRIATE RESPO	SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Abser	i)	The state of the s			PT.237; D-1104			
Intact / Broken					***************************************			
2. Chain-of-Custody Present / Abser	t*				~ <del></del> -		—	
3 Traffic Reports or								
Pocking List: Present / Abfer	)	**,					181	
4. Airbill: Airbill / Slicker							0	
Present / Abs@	1				·· ···· · · · · · · · · · · · · · · ·	5 \		
5. Airbill #;								
6. Sample Labels: Present / Abser					7	Ø/		
7. Sample IDs: Listed / Not List	er!							
on Chain-of-Cu	— <del></del>			7// 24				7
0. Sample Condition: In(adl / Droken*	/		4				[	
Leaking*								
9. Does information on chain-of-custod	r, <u> </u>							·
traffic reports and sample labels								
agree? (eg / No							***************************************	- Icanor
10. Sample received within			" /					
hold time? (eg / No								
11. Adequate sample volume								
received? (e) / No								
12. Proper preservatives used? (eg) No								
13. Trip Bank / Temp Blank Received?			·					77.
(circle which, if yes) Yes/ No			-					
14. Read Temp: 4.2°C								
Corrected Temp:								With the second
Is corrected temp 4 +/-2°C? Yesy No*	·							202
(Acceptance range for samples requiring thermal pres.)								
**Exception (If any): METALS / DFF ON IC	E /							10
or Problem COC					•			

SRL Revision () Replaces Rev / (07/19/06) Sfective 09/13/06 "IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Page of \_\_\_

### 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 276

Facility Global ID:

T0600100082

Facility Name:

ARCO #0276

Submittal Date/Time:

6/22/2007 12:03:17 PM

Confirmation Number:

6738772332

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: 9218418776

Date/Time of Submittal: 6/22/2007 12:01:18 PM

Facility Global ID: T0600100082 Facility Name: ARCO #0276

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

Click here to view the detections report for this upload.

ARCO #0276

Regional Board - Case #: 01-0089

10600 MACARTHUR OAKLAND, CA 94605

SAN FRANCISCO BAY RWQCB (REGION 2) Local Agency (lead agency) - Case #: RO0000831

ALAMEDA COUNTY LOP - (BC)

NOTE: THIS DATA WAS SUBMITTED AFTER THE SITE WAS CLOSED.

CONF#

TITLE

QUARTER

9218418776

2Q07 GW Monitoring

Q2 2007

SUBMITTED BY Broadbent & Associates, Inc.

SUBMIT DATE 6/22/2007

STATUS PENDING REVIEW

### SAMPLE DETECTIONS REPORT

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

3 WATER

3

3

#### METHOD OA/OC REPORT

METHODS USED

8260FA,8260TPH,SW8260B

TESTED FOR REQUIRED ANALYTES?
LAB NOTE DATA QUALIFIERS

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

TECHNICAL HOLDING TIME VIOLATIONS
METHOD HOLDING TIME VIOLATIONS
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT
LAB BLANK DETECTIONS

5 0 0

5

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

- LAB METHOD BLANK
- MATRIX SPIKE
  MATRIX SPIKE DUPLICATE
- BLANK SPIKE - SURROGATE SPIKE

N Y Y

N

### WATER SAMPLES FOR 8021/8260 SERIES

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

Y N

N

BLANK SPIKE / BLANK SPI	IKE DUPLICATES % RECOVERY	BETWEEN 70-130%	Y
SOIL SAMPLES FOR	8021/8260 SERIES		
	SPIKE DUPLICATE(S) % RECOV		n/a
MATRIX SPIKE / MATRIX S	SPIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a
SURROGATE SPIKES % RE	COVERY BETWEEN 70-125%		n/a
			11/ 🕶
BLANK SPIKE / BLANK SPI	IKE DUPLICATES % RECOVERY	BETWEEN 70-130%	n/a
FIELD QC SAMPLES SAMPLE	KE DUPLICATES % RECOVERY  COLLECTED	BETWEEN 70-130%  DETECTIONS >	п/а
FIELD QC SAMPLES	NO ZÁ NO PELONOMO POR PORTO PORTO PORTO DE LA PORTO DE NOTO DE PORTO DE LA PORTO DE PORTO DE LA PORTO DEL PORTO DEL PORTO DE LA PORTO DEL PORTO DEL PORTO DE LA PORTO DE LA PORTO DEL PORTO DE LA PORTO DEL PORTO DEL PORTO DEL PORTO DE LA PORTO DEL PORTO DE	and the state of t	п/а
FIELD QC SAMPLES SAMPLE	NO ZÁ NO PELONOMO POR PORTO PORTO PORTO DE LA PORTO DE NOTO DE PORTO DE LA PORTO DE PORTO DE LA PORTO DEL PORTO DEL PORTO DE LA PORTO DEL PORTO DEL PORTO DE LA PORTO DE LA PORTO DEL PORTO DE LA PORTO DEL PORTO DEL PORTO DEL PORTO DE LA PORTO DEL PORTO DE	and the state of t	п/а

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.