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Alameda County Environmental Health



Atlantic Richfield Company (a BP affiliated company)

P.O. Box 1257

San Ramon, CA 94583 Phone: (925) 275-3801 Fax: (925) 275-3815

30 April 2007

Re: First Quarter 2007 Ground-Water Monitoring Report

Atlantic Richfield Company (a BP affiliated company) Station #2111

1156 Davis Street San Leandro, California ACEH Case #RO0000494

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

Submitted by:

Paul Supple

Environmental Business Manger

First Quarter 2007 Ground-Water Monitoring And

Remediation System Status Report
Atlantic Richfield Company Station #2111
1156 Davis Street
San Leandro, 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

30 April 2007

Project No. 06-08-615

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



30 April 2007

Project No. 06-08-615

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

Attn.: Mr. Paul Supple

Re:

First Quarter 2007 Ground-Water Monitoring and Remediation System Status Report,

Atlantic Richfield Company (a BP affiliated company) Station #2111, 1156 Davis Street,

San Leandro, California ACEH Case #RO0000494

Dear Mr. Supple:

Attached is the First Quarter 2007 Ground-Water Monitoring and Remediation System Status Report for Atlantic Richfield Company Station #2111 (herein referred to as Station #2111) located at 1156 Davis Street, San Leandro, California (Property). This report presents results of ground-water monitoring conducted at Station #2111 during the First Quarter 2007.

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

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.

Senior Engineer

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

Principal Hydrogeologist

Enclosures

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

Mr. Karl Busche, City of San Leandro Environmental Services Division, 835 East 14th Street,

San Leandro, California 94577

Electronic copy uploaded to GeoTracker

ARIZONA

CALIFORNIA

NEVADA

TEXAS

ROBERT H MILLER

No. 4893

STATION #2111 QUARTERLY GROUND-WATER MONITORING AND REMEDIATION SYSTEM STATUS REPORT

Facility: #2111 Address:

Environmental Business Manager:

Consulting Co./Contact Persons:

Consultant Project No.:

Primary Agency/Regulatory ID No.:

Pracility Permits/Permitting Agency:

Address:

1156 Davis Street, San Leandro, California

Mr. Paul Supple

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

06-08-615

Alameda County Environmental Health (ACEH)
ACEH Case #RO0000494

City of San Leandro Special Discharge Permit SD-036;
Bay Area Air Quality Management District Plant 16189

WORK PERFORMED THIS OUARTER (First Quarter 2007):

- 1. Prepared and submitted Fourth Quarter 2006 report.
- 2. Conducted ground-water monitoring/sampling for First Quarter 2007. Work performed on 15 January 2007 by Stratus Environmental, Inc (Stratus).
- 3. Submitted Dual-Phase Extraction (DPE) system startup notification letter to Bay Area Air Quality Management District (BAAQMD) on 24 January 2007 (Stratus).
- 4. Conducted startup of DPE treatment system on 29 January 2007 (Stratus).
- 5. Performed routine operation, maintenance and performance monitoring of the DPE treatment system (Stratus).
- 6. Submitted DPE system startup report to BAAQMD on 28 February 2007 (Stratus).
- 7. Submitted monthly discharge reports for January, February and March 2007 to the City of San Leandro (Stratus).

WORK PROPOSED FOR NEXT QUARTER (Second Quarter 2007):

- 1. Prepared and submitted this First Quarter 2007 Ground-Water Monitoring and Remediation System Status Report (contained herein).
- 2. Conduct quarterly ground-water monitoring/sampling for Second Quarter 2007.
- 3. Continue operation, maintenance and performance monitoring of the DPE treatment system.
- 4. Submit monthly discharge reports for April-June 2007.

OUARTERLY RESULTS SUMMARY:

Current phase of project:	Ground-Water Monitoring/Sampling/Remediation
Frequency of ground-water	Quarterly: MW-1 through MW-8
monitoring:	
Frequency of ground-water sampling:	Quarterly: MW-1 through MW-5, MW-7 and MW-8
	Annually (3Q): MW-6
Is free product (FP) present on-site:	No
FP recovered this quarter:	0 gallons
Cumulative FP recovered:	1.44 gallons (MW-2)
Depth to ground-water (below TOC):	13.80 ft (MW-6) to 16.81 ft (MW-1)
General ground-water flow direction:	Southwest
Approximate hydraulic gradient:	0.004 ft/ft
Current remediation techniques:	DPE treatment system
System startup:	01/29/2007
Extraction wells:	SVE: V-1, V-2, V-3, MW-1, MW-3, MW-7, MW-8
	GWE: MW-2

QUARTERLY RESULTS SUMMAR	RY (Continued):			
Frequency of DPE system field				
monitoring:	Bi-weekly			
Frequency of DPE system sampling:	Monthly			
Gallons of ground-water treated and				
discharged this quarter:	130,262			
Total gallons of ground-water treated				
and discharged to date:	130,262			HAMMISON II. SA
Total operation hours to date:	443.8			
Mass Removal (pounds)	Quarterly		Cumulative	
Gasoline range organics (GRO):	1.606 (GWE)	77.53 (SVE)	1.606 (GWE)	77.53 (SVE)
Benzene:	0.026 (GWE)	-	0.026 (GWE)	
Methyl-tert butyl ether (MTBE):	1.664 (GWE)		1.664 (GWE)	
Sample collection dates:	1/29/2007	2/5/2007	3/5/2007	
Ground-water DPE system influent				
sample results (μg/L):				
GRO:	2,000	1,400	1,500	
Benzene:	35	25	20	
MTBE:	1,300	1,600	1,600	
Ground-water DPE system effluent		•	•	
sample results (μg/L):				
GRO:	<50	<50	< 50	
Benzene:	<0.50	<0.50	<0.50	
MTBE:	<0.50	<0.50	<0.50	
Soil vapor DPE system influent				
sample results (µg/L):				
GRO:	77	400	100	
Benzene:	<0.50	10	2.3	
MTBE:	9.4	21	26	
Soil vapor DPE system effluent				
sample results (µg/L):				
GRO:	<10	<10	<10	
Benzene:	<0.10	<0.10	0.17	
MTBE:	<0.50	<0.50	<0.50	
graph de der des t				

DISCUSSION:

First quarter 2007 ground-water monitoring and sampling was conducted at Station #2111 on 15 January 2007 by Stratus personnel. Water levels were gauged in the eight wells at the Site. Depth to water measurements ranged from 13.80 ft at MW-6 to 16.81 ft at MW-1. Resulting ground-water surface elevations ranged from 24.11 ft above mean sea level in well MW-7 to 22.49 ft at well MW-5. Water level elevations were between historic minimum and maximum ranges for each well, as summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the southwest at approximately 0.004 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. Historic free product thickness and cumulative product recovery from well MW-2 is presented in Table 4. 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-1 through MW-5, MW-7 and MW-8. Samples were submitted under chain of custody protocol to Test America Analytical Testing Corporation (Morgan Hill, California), for analysis of Gasoline Range Organics (GRO, C4-12) by the LUFT GCMS Method; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and tert-Amyl methyl ether (TAME), tert-Butyl alcohol (TBA), Di-isopropyl ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Ethanol, Ethyl tert-butyl ether (ETBE), and Methyl tert-butyl ether (MTBE) by EPA Method 8260B. The laboratory noted that the GRO result from the sample collected in well MW-7 was partly due to individual peak(s) in the quantitation range. 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 limit in four of the seven wells sampled at concentrations up to 5,000 micrograms per liter (µg/L) in well MW-2. Benzene was detected above the laboratory reporting limit in two of the seven wells sampled at concentrations up to 51 µg/L in well MW-2. Ethylbenzene was detected above the laboratory reporting limit in four of the seven wells sampled at concentrations up to 49 µg/L in well MW-2. Total Xylenes were detected above the laboratory reporting limit in two of the seven wells sampled at concentrations up to 34 µg/L in well MW-2. TAME was detected above the laboratory reporting limit in four of the seven wells sampled at concentrations up to 6.8 µg/L in well MW-1. TBA was detected above the laboratory reporting limit in four of the seven wells sampled at concentrations up to 9,300 μg/L in well MW-7. MTBE was detected above the laboratory reporting limit in each of the seven wells sampled at concentrations up to 3,900 µg/L in well MW-7. The remaining fuel additives and oxygenates were not detected above their laboratory reporting limits in the seven wells sampled this quarter. Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well, with the following exceptions: concentrations of GRO, Benzene, Toluene, Ethylbenzene, Total Xylenes, TAME, TBA and MTBE in well MW-8 were the lowest on record and the concentration of TBA in well MW-5 also reached a historic minimum value of 990 µg/L. 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.

Stratus brought the DPE system on-line on 29 January 2007. For the First Quarter 2007 period from 29 January 2007 to 29 March 2007, the DPE system is reported to have operated approximately 30 percent of the time. During this period, a total of 130,262 gallons of ground water was treated and discharged. Approximately 79.14 pounds of GRO (12.970 gallons) was reported removed during the First Quarter 2007. Approximately 0.026 pounds of benzene (0.003 gallons) was reported removed during the First Quarter 2007. Approximately 1.664 pounds of MTBE (0.270 gallons) was removed from the soil and groundwater during the First Quarter 2007. Ground-water extraction performance and analytical data is summarized in Tables 5, 6 and 7. Soil vapor extraction performance and analytical data is summarized in Tables 8, 9 and 10. The DPE system operated for approximately 18 days between 29 January 2007 and 29 March 2007 based on the hour meter reading. During the month of February, a flow totalizer was installed prior to the air-stripper to estimate the air-stripper ground-water treatment flow rate. Stratus found the system non-operational upon arrival at the site on 20 February 2007 due to failure of the transfer pump. Stratus found the system again non-operational upon arrival at the site on 27 February 2007 again due to failure of the transfer pump. Benzene and ethylbenzene concentrations were detected in the effluent sample collected on 5 March 2007. The concentrations were within the BAAQMD permit discharge limits. However, an additional effluent air sample was collected on 8 March 2007 and the system was shutdown pending verification of the analytical results. Upon receipt of the

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results (which were non-detect for the tested constituents), Stratus' attempt to restart the system on 14 March 2007 failed due to the malfunction of the level floats on the knockout tank. The floats were replaced on 29 March 2007 and the system was restarted. Copies of Stratus' remediation system operation and maintenance data packages for the first quarter 2007 are contained within Appendix C. copies of Stratus' remediation system monthly discharge reports for the first quarter 2007 are contained within Appendix D.

CLOSURE:

The findings presented in this report are based upon: observations of Stratus field personnel (see Appendices A, C, D), 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:

Figure 3.

Drawing 1.	Ground-Water Elevation Contour and Analytical Summary Map – 15 January 2007
Table 1.	Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Table 2.	Summary of Fuel Additives Analytical Data
Table 3.	Historical Ground-Water Flow Direction and Gradient
Table 4.	Approximate Cumulative Floating Product Recovered
Table 5.	Soil Vapor Extraction System and Ground-Water Extraction System Monthly Discharge Analytical Results Summary
Table 6.	Ground-Water Extraction System Performance Data
Table 7.	Ground-Water Extraction System Effluent Data
Table 8.	Operational Uptime Information of the Soil Vapor Extraction System
Table 9.	Soil Vapor Extraction System Flow Rates and Air Sample Analytical Results
Table 10.	Soil Vapor Extraction and Emission Rates
Figure 1.	Cumulative GWE Mass Removal for GRO, Benzene, and MTBE
Figure 2.	GWE Influent Concentrations for GRO, Benzene, and MTBE

SVE System Influent Concentration vs. Time

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Figure 4. SVE System Cumulative GRO Mass Removed vs. Time

Appendix A. Stratus Ground-Water Sampling Data Package (Includes Field Data Sheets and

Laboratory Analytical Report with Chain-of-Custody Documentation)

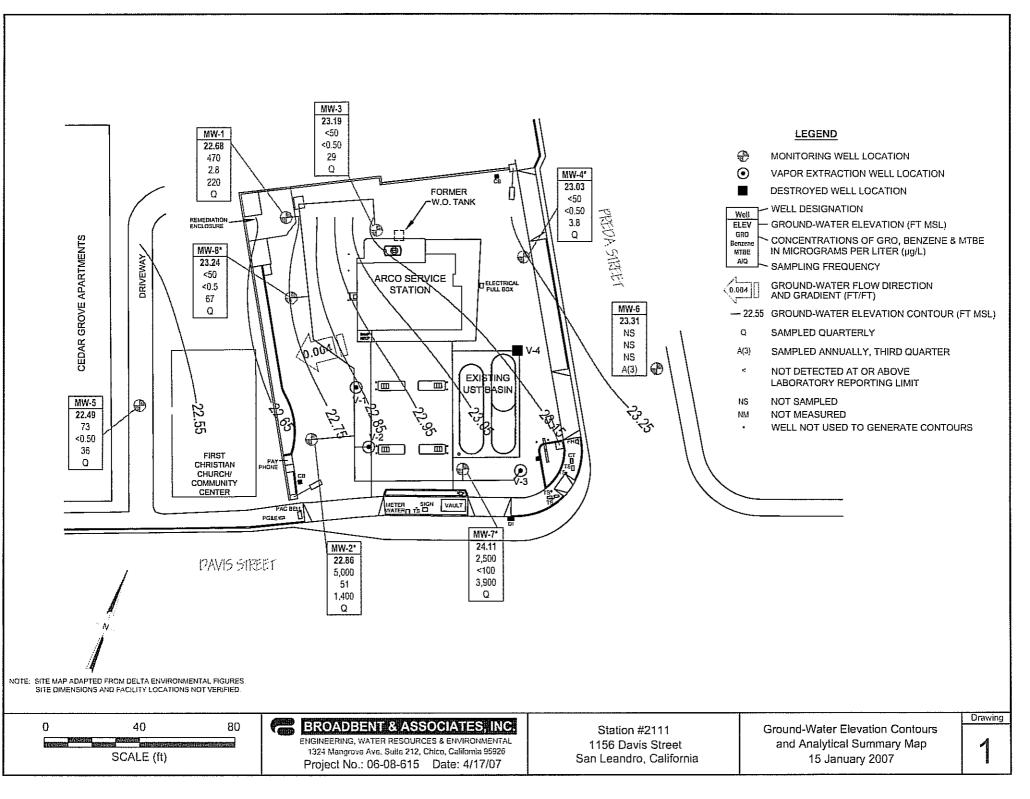
Appendix B. GeoTracker Upload Confirmations

Appendix C. Stratus Remediation System Operation and Maintenance Data Packages (Includes Field

Data Sheets, Laboratory Report, and Chain-of-Custody Documentation)

Appendix D. Stratus Remediation System Monthly Discharge Reports (Includes Brief Statements

Summarizing Operations and Discharge Summary Tables)



				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-1													in the state of th		
6/26/2000			39.60	12:50	26.00	16.46	23,14					Control of the contro			
7/20/2000			39.60	12.50	26.00	16.89	22.71	360	110	<0.5	<0.5	2.7	2,100	-	-
9/19/2000			39.60	12.50	26.00	17.62	21:98	290	76	\$0.5 	40 .5		1,500	-	
12/21/2000 3/13/2001			39.60 39.60	12.50 12.50	26.00 26.00	17.39 15.70	22.21 23.90	257 ≼500	64 52.5	2.89 ≼5.0	1.31 <5.0	4.57 <5.0	1,080/1,060	 	
9/18/2001			39.60	12.50	26.00	18.24	21.36	<500	64	7.3	<5.0	52	1,430/1,370 810/1,100		
12/28/2001			39.60	12.50	26.00	15.95	23.65	<500	<5.0			22	1,200/1,100		
3/14/2002			39.60	12.50	26.00	16.01	23.59	<50	<0.5	< 0.5	<0.5	<0.5	34/40		
4/23/2002			39.60	12.50	26.00	15 45	24.17	¥50	<0.5	<0.5	₹0.5	40.5	30		
7/17/2002	NP		39.60	12.50	26.00	17.50	22.10	<50	1.2	< 0.50	<0.50	<0.50	29	6.9	6.9
10/9/2002 1/13/2003		C .	39.60 39.60	1250 12.50	26.00 26.00	18.27 15.37	21-33 24.23	240 760	34	<1.0 11	4,1	7.0	290	6.5	65
04/07/03		c Mauromanian	39.60	12.50	26.00	15.57	24.23 22.99	/60 	<0.50	11 <0 50	17 <0:50	56 ≼0.50	300 22	6.8 6.8	6.8 6.8
7/9/2003			39.60	12.50	26.00	17.27	22.33	<2,500	<25	<25	<25	(#####################################	690	6.7	6.7
02/05/2004	NP	\mathbf{m}	39,49	12.50	26.00	16.28	aj jij 23 ,2] i, jaj	2,800	31	<25 iii	#25 H	25	1,100	0.9	6.5
04/05/2004	NP	CONTRACTOR OF THE CONTRACTOR O	39.49	12.50	26.00	16.25	23.24	5,800	46	<25	<25	<25	1,700	1.0	
07/13/2004	NP		39.49	12.50	26.00	1757	21.92	<1,000	=10:ii=	<10	<10	iii ≤10	730	0.5	6.6
11/04/2004 01/20/2005	NP NP		39.49 39.49	12.50 12.50	26.00 26.00	17.78 15.50	21.71 23.99	560 670	<5.0 ₹ 5.0	<5.0 ≪5.0	<5.0	<5.0 <5.0	380 570	0.8 0.6	6.5 6.0
04/11/2005	NP		39.49	12.50	26.00	14.82	24.67	<2,500	<25	<25	<25	25	1,100	0.9	6.9
08/01/2005	NP		39.49	12.50	26.00	16.77	22 72	2,200	33	410	110	<10	1,400	1.27	7.3
10/21/2005	NP	mananamanamanamanamanaman	39.49	12.50	26.00	17.71	21.78	<2,500	<25	<25	<25	<25	970	1.17	6.6
01/18/2006	NP	n	39.49	12:50	26.00	14.70	24.79	300	<2.5	25	<2.5	<2.5	330	1.07	6.6
04/14/2006	NP		39.49	12.50	26.00	13.41	26.08	330	<2.5	<2.5	<2.5	<2.5	310	0.79	6.6
7/19/2006 10/24/2006	NP P	9	39.49 39.49	12.50 12.50	26.00 26.00	15.86 17.15	23.63 22.34	<250 710	<2.5 4.2	<2.5 <2.5	<2.5 19	2. 5	180 360	1.2	6.7
1/15/2007	P Distriction		39.49 39.49 #	12.50	26.00 26.00	17.15	22.34 22.68	470	2.8	<2.5 <2.5	19	8.4	220	 1.14	6.68 7.12
MW-2	**************************************														
-1.002.7; 1.00.1; 10-1.05.244; 1.1.74.3 (3-2-3)			12.00										Karamanasas		
6/26/2000 7/20/2000			37.99 37.99	12.0 12.0	26.00 26.00	14.60 15.14	23.39 22.85	95,000	2,300	18,000	2,500	19,000	13,000	 	
//20/2000			27.35	12.0	20.00	17.14	ده،کک	33,000	2,300	10,000	2,500	19,000	13,000		

				Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			тос	Screen	Sereen	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-2 Cont.												!			
9/19/2000			37.99	12.0	26,00	15.95	22.04	63,000	1,200	6,300	2,000	14,000	19,000		
12/21/2000			37.99	12.0	26.00	15.60	22.39	45,900		2,130	1,160	9,460	22,400/24,700		
12/21/00		ь	37.99	12.0	26.00			5,010	360	189	213	626	54,300/89,200		
3/13/2001			37.99	12.0	26.00	13.77	24.22	3,650	98.1	<5.0	<5.0	6.42	3,590/3,260		
3/13/2001		b	37.99	12.0	26.00			<20,000	525	466	408	1,460	91,700/76,000		
9/18/2001		a	37.99	12.0	26.00	16.86	21.13			-		_			
12/28/2001			37.99	12.0	26.00	14.28	2371	31,000	1,500	3,800	1,300	4,800	9,300/8,800		
3/14/2002	 autan pertanaa	TO E-UST E-UST THE USE MORE	37.99	12.0	26.00	14.15	23.84	1,800	25	43	43	270	990/960		
4/23/2002			37.99	12.0	26.00	13.60	24,39	9,000	220	110	470	2,500	8,500		
7/17/2002 10/9/02	NP	a, c	37.99	12.0	26.00	15.75	22,24 ::::::::::::::::::::::::::::::::::	74,000	280	290	820	10,000	19,000/0.4	6.8	6.8
1/13/03	NP	ğ	37.99 37.99	12.0	26,00	16.69	21.30								
04/07/03		g, h g, h	37.99	12.0	26.00 26.00	13.59 14.70	24.40 23.29	— Historia	 				-	— amagnasis	
07/09/03		g, h	37.99	12.0	26.00	15,48	22.51								
02/05/2004	NP	g, n	37:86	12.0	26.00	14.43	23,43				-		-	<u>-</u>	-
04/05/2004	NP		37.86	12.0	26.00	14.35	23.51	2,300	33	<5.0	<5.0	200	750	0.6	
07/13/2004	NP		37.86	12.0	26.00	15.79	22.07	59,000	380	<50	2.100	7,900	5.800	Holall	6.4
08/31/2004		лин <u>итемниканичнакан</u>	37.86	12.0	26.00	15.89	21.97								
11/04/2004		g, h	37.86	12.0	26,00	15.92	21.94		IX Sould Library control						
01/20/2005	NP	O	37.86	12.0	26.00	13.71	24.15	30,000	450	<50	1,300	3,300	7,000	0.7	6.2
04/11/2005	NP		37.86	12.0	26.00	12.70	25:16	11,000	170	450	580	630	2,700	0.9	6.8
08/01/2005	NP		37.86	12.0	26.00	14.89	22.97	24,000	170	<50	1,100	2,700	2,700	0.64	6.9
10/21/2005		a in the same of t	37.86	12.0	26.00	16.05	21.81								
01/18/2006	NP	n	37.86	12.0	26.00	12.81	25.05	21,000	71	<50	470	1,400	1,600	1.18	6.6
04/14/2006	NP.	o	37.86	12.0	26,00	12,24	25.62	7,800	78	≓50 iiii	. 94	130	2,100	0.81	6.7
7/19/2006	NP	q	37.86	12.0	26.00	14.00	23.86	4,900	31	<10	98	75	930	1.1	6.5
L0/24/2006		<u>p</u>	37.86	12.0	26.00	15.38	22,48	*							6.45
1/15/2007	P		37.86	12.0	26.00	15.00	22.86	5,000	51	<10	49	34	1,400	1.85	7.13
MW-3															
6/26/2000			39,32	12.00	26.00 [6]	15.96	23.36								

				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-3 Cont.															
7/20/2000			39.32	12.00	26.00	16.42	22.90	#¥50##	 	 - <0.5	\$0.5	S1.0 =	30		
9/19/2000	 		39.32	12.00	26.00	17.18	22.14	190	17	<0.5	1.4	2.4	160		
12/21/2000			39.32	12.00	26,00	16.97	22.35	187	17.8	<0.5	247	2:5	143/125		
3/13/2001		and a state of the	39.32	12.00	26.00	15.17	24.15	72.4	2.83	<0.5	<0.5	<0.5	126/122	### I	
9/18/2001			39.32	12,00	26.00	17.81	21.51	140	6.4	<0.5	3.5	1.6	110/75		
12/28/2001			39.32	12.00	26.00	15.44	23.88	130	5.9	<0.5	0.99	0.55	90/63		
3/14/2002			39,32	12.00	26.00	15.50	23,82	<50	<0.5	<0.5	<0.5	<0.5	100/88		
4/23/2002	 	LOTEURO DE GUANDO DOS AGOZAMAS	39.32	12.00	26.00	14.96	24.36	<50	< 0.5	< 0.5	<0.5	<0.5	77 :::::::::::::::::::::::::::::::::::	 :::::::::::::::::::::::::::::::::::	
7/17/2002	NP		39.32	12.00	26,00	17.09	22/23	<50	<0.50	<0.50	50.50	<0.50	47	7.2	72
10/9/2002 1/13/2003	NP NP		39.32 39.32	12.00	26.00 26.00	17.87 14.78	21.45	<50 	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50	26/29	7.2 6.8	7.2
04/07/03	NP		39.32	12.00	26.00	16.15	23.17	88	<0.50	<0.50	<0.50	<0.50	75 75	7.0	6.8 7.0
7/9/2003			3932	12.00	26.00	16.79	22.53	100	 	₹0.50 	<0.50	<0.50	52 III	6.5	6.5
02/05/2004	NP	Eminetikudumidekisi m	39.19	12.00	26.00	15.66	23.53	240	<0.50	<0.50	<0.50	<0.50	######################################	0.5	
04/05/2004	# NP		39.19	12,00	26.00	15178	23.41	140	<0.50	₹0.50	 <0.50	0.60	i (1865)	10	6.6
07/13/2004	NP		39.19	12.00	26.00	17.20	21.99	120	<0.50	<0.50	<0.50	<0.50	35	0.8	6.7
11/04/2004	NP		39.19	12.00	26.00	17.32	21.87	160	<0.50	<0.50	\$0.50	ii <0.50	25	- 0.8	6.5
01/20/2005	NP		39.19	12.00	26.00	15.07	24.12	160	<0.50	<0.50	<0.50	<0.50	27	0.6	6.1
04/11/2005	NP		39,19	12,00	26.00	14.24	24.95	<50	<0.50	<0.50	\$0.50	<0.50	21	0.6	6.1
08/01/2005	NP		39.19	12.00	26.00	16.29	22.90	<50	<0.50	<0.50	<0.50	< 0.50	23 	1.04	7.2
10/21/2005	NP		39.19	12.00	26.00	17.41	21.78	88	<0.50	<0.50	<0.50	<0.50	19	1.9	6.6
01/18/2006	NP		39,19 39 19	12.00 12.00	26.00 26.00	13.80 12.55	25.39 26.64	73 \$50	<0,50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50	13 6.7	1.13	6.6
04/14/2006 7/19/2006	NP NP		39.19 39.19	12.00	26.00 26.00	15.04	20.04 24.15	<50	<0.50	<0.50	<0.50	<0.50		0.71 2.0	66
10/24/2006	INF	q Housensternstern	39,19	12.00	26.00	16.45	22.74	_\ 	<0.50 <0.50	<0.50	20.50 20.50	<0.50	11 11 133 11 11	2.0	6.6 6.77
1/15/2007	P		39.19	12.00	26.00	16.00	23.19		<0.50	<0.50	0.61	<0.50	716 11 TO 11 TO 12	1.11	7.03
MW-4	-								"""	******	0.01	0.2.0			
47411142414161414161416622444466174766614						anarwynasa					GHEDAYEN			!!!:=:::::::::::::::::::::::::::::::::	
6/26/2000 7/20/2000			38.10 38.10	10.0 10.0	24.00 24.00	14,59 15.04	23.51 23.06	97	7.9	<0.5	<0.5	1.1	51		
9/19/2000			38.10	10.0	24.00 24.00	15.83	23.06	97 110	7.9	<0.5	<0.5	1.1 (10	51 51	 	
3713/2000 Shiring 1964						100				L. Cu					

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2111, 1156 Davis St, San Leandro, CA

				Top of	Bottom of		Water Level			Concentra	tions in (μ	g/L)			
Well and			TOC	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-4 Cont.															
12/21/2000			38:10	0.01	24.00	15 59	22.51	120	5.6	< 0.5	1.72	<0.5	46.3/48.6		
3/13/2001	**		38.10	10.0	24.00	13.73	24.37	76	0.796	<0.5	<0.5	<0.5	53.7/50		
9/18/2001			38.10	10:0	24.00	16.50	21.60	∯ <50	∜0.5	₹0.5	×0 5	<0.5	25/26		
12/28/2001			38.10	10.0	24.00	14.03	24.07	<50	<0.5	<0.5	<0.5	<0.5	15/11		
3/14/2002			38.10	10,0	24.00	14:10	24.00	<50 ·	<0.5	≮0 .5	<0.5	<0.5	31/28		
4/23/2002			38.10	10.0	24.00	13.57	24.53	<50	2.8	<0.5	<0.5	<0.5	42		
7/17/2002	i NP		3840	10.0	24.00	1576	22.34	<50	<0.50	₹0.50	<0,50	₹0,50	16	711	7.1
10/9/2002	NP		38.10	10.0	24.00	16.59	21.51	<50	2.2	< 0.50	<0.50	<0.50	20/23	7.1	7.1
1/13/2003	iiiiNP	d	38.10	10:0	24.00	13.43	24.67	52	₹0.50	1.6	ii<0.50	<0.50	22	6,6	6.6
04/07/03	NP		38.10	10.0	24.00	14.74	23.36	65	<0.50	<0.50	<0.50	<0.50	24	6.6	6.6
7/9/2003			38.10	10:0	24.00	15.44	22,66	120	<0.50	<0.50	<0.50	<0.50	34	6.6	6.6
02/05/2004	NP	m	37.99	10.0	24,00	14.39	23.60	120	<0.50	<0.50	<0.50	<0.50	22	0.5	6.6
04/05/2004	NP.		37.99	10.0	24.00	14.37	23.62	i dio	<0.50	<0.50 ⊨	₹0.50	-i<0.50			6.5
07/13/2004	NP		37.99	10.0	24.00	15.96	22.03	77	<0.50	<0.50	<0.50	<0.50	27	0.6	6.6
11/04/2004	MP		37.99	10.0	24.00	16.02	21.97	i≟ < 50	<0.50	- <0.50	<0.50	<0.50	19	1.2	6.7
01/20/2005	NP	la kil na di projenyon yana wida kilokalayah Addina kiloka ya La wa C. p. y	37.99	10.0	24.00	13.72	24.27	65	<0.50	<0.50	<0.50	<0.50	18	0.6	6.1
04/11/2005	NP		37.99	10.0	24.00	12.80	25.19	51	.≘<0.50	<0.50	<u> </u>	<0.50	14	0.7	6.2
08/01/2005	NP	- TANTONASSAN FINISISSAN (1888) SA I DAN MARITATTUM I	37.99	10.0	24.00	14.88	23.11	<50	<0.50	<0.50	<0.50	<0.50	18	1.46	7.3
10/21/2005	NP		37.99	10.0	24.00	15.01	22.98	₹50	<0.50. 	<0.50	<0.50	<0.50	15	1.24	7.6
01/18/2006	NP	Bereichten bereichten bereich gereich	37.99	10.0	24.00	12.92	25.07	<50	<0.50	<0.50	<0.50	<0.50	8.9	0.77	6.5
04/14/2006	ii NP		37.99	10.0	24:00	11.41	26.58	< 50	<0.50	<0.50	<0.50.	<0.50	4.2	0.84	6.6
7/19/2006	NP		37.99	10.0	24.00	13.86	24.13	<50	<0.50	<0.50	<0.50	<0.50	3.4	1.0	6.7
10/24/2006	P		37.99	10.0	24.00	15,35	22.64	K50	<0.50	<0.50	2,0	<0.50	3.5		6.90
1/15/2007	P		37.99	10.0	24.00	14.96	23.03	<50	<0.50	<0.50	0.96	<0.50	3.8	-	7.04
MW-5															
6/26/2000		andromental and a single	37.21	9,50	23,50	14.27	22.94								1000
7/20/2000	ovidence because I Per dy Artenda (19 70 0 1 . 1. p 16 1 / 16 6 P 11 6 P 6 1 A P 6 1 A P 18	37.21	9.50	23.50	14.69	22.52	55	<0.5	<0.5	<0.5	<1.0	14,000		
9/19/2000			37.21	9.50	23.50	1536	21.85	54	<0.5	<0.5	≤ 0.5	<1,0	13,000		
12/21/2000		72771	37.21	9.50	23.50	15.15	22.06	72.9	2.51	<0.5	<0.5	0.961	9,200/21,200	**	
3/13/2001			37.21	9.50	23.50	13.50	28.71	<500	i i i i	∰-¢5⊪	- s	<5	5,900/20,000		

				Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			TOC	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(fect msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Вепхепс	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-5 Cont.															
9/18/2001			37(2)	9:50	23.50	15.94	21,27	<10,000	<100	ii≪100	ii<100	<1,000	22,000/20,000		
12/28/2001		500,000 mg 4mg hap (1 to - 4.5 mg 3 mg hap 2 mg hap (1 to 2 mg hap	37.21	9.50	23.50	13.45	23.76	<10,000	<100	<100	<100	<100	10,000/10,000	1	
3/14/2002			37.21	9.50	23,50	13.82	23,39	≲5,000	S50	_⊨<50	r≰50	450	7,100/7,700		
4/23/2002			37.21	9.50	23.50	13.25	23.96	<5,000	<50	<50	<50	<50	8,900		
7/17/2002	NP	i ja ja dini ja j	37.21	9.50	23.50	15.27	21,94	7,900	≤50	: =50::	- ≰50	\$50	13,000	7.5	7.5
10/9/2002	NP	e	37.21	9.50	23.50	16.02	21.19	2,400	<20	<20	<20	<20	7,300/7,500	6.7	6.7
1/13/2003	NP	e, k, j	37.21	9.50	23.50	13.20	24:01	6,400	₹\$0	<50	<50.	\$50	8,900	6,8	6.8
04/07/03	NP		37.21	9.50	23.50	14.42	22.79	<10,000	<100	<100	<100	<100	3,700	6.8	6.8
7/9/2003			37.21	9.50	23.50	15.01	22:20	11,000	≤50	≼50	<50	<50	6,500	6.9	6.9
02/05/2004	NP	m	37.12	9.50	23.50	14.10	23.02	8,100	<50	<50	<50	<50	7,900	1.5	
04/05/2004	NP		37.12	950	23.50	14.14	22.98	4.000	<25	F25	95	<25	2,000	1.0	6.6
07/13/2004	NP		37.12	9.50	23.50	15.37	21.75	<5,000	<50	<50	<50	<50	4,000	0.8	6.7
11/64/2004	NR S		37.12	9.50	23.50	15.53	21.59	7,400	<50	<50	250	<50	6,300	35	6.7
01/20/2005	NP	n	37.12	9.50	23,50	13.51	23.61	6,500	<50	<50	<50	<50	6,900	0.7	6.5
04/11/2005	NP.		37.12	9,50	23,50	12,75	24,37	45,000	≈50	<50	<50	≪50	2,600	0.5	7.0
08/01/2005	NP	esti est electrica est est electrica est el	37,12	9.50	23.50	14.59	22.53	110	<1.0	<1.0	<1.0	<1.0	130	1.36	7.5
10/21/2005	NP		37,12	9.50	23,50	15.57	21,55	<250	<2i5	2.5	\$2.5	42.5		1.53	6.8
01/18/2006	NP		37.12	9.50	23.50	12.60	24,52	<250	<2.5 <2.5	<2.5	<2.5 加加加加加加	<2,5	100	1.2	6.7 6.6
04/14/2006	NP		37.12	9.50	23.50	11.74	25.38 23.34	310 <50	<2.5	<2.5 <2.5	1 25	<2.5 <2.5	240	0.93	ananis)
7/19/2006	NP P		37.12 37.12	9.50 9.50	23.50 23.50	13.78 14.95	23.34 22.17	61	<0.50 <0.50	<0.50	<2.5 <0.50	<0.50	84	1.2	6.6 6,69
10/24/2006 1/15/2007	ing angle P		37.12	9.50	23.50	14.63	22,17	73	<0.50	<0.50	<0.50	<0.50	117. 36	2.8	6.73
MW-6	•] J	2104		1.100				0,00	-5.50			210	
6/26/2000			37.11	10,00	25.00	13.46	23.65						-	<u></u>	
7/20/2000			37.11	10.00	25.00	13.94	23.17	<50	<0.5	<0.5	<0.5	<1.0	<3.0	 	
9/19/2000			37.11	10,00	25.00	14.41	22.70	₹50	<0.5	<0.5	<0.5	<10	<3.0	4	
12/21/2000			37.11	10.00	25.00	14.53	22.58	< 50	<0.5	<0.5	<0.5	<0.5	<2.5		
3/13/2001			37.11	10.00	25.00	12.67	24.44	450	₹0.5	<0.5	<0.5	<0.5	225		
9/18/2001	#51692BH(BH(BH))	#23705#22214774800007858(FREATED #111598FFREATED	37.11	10.00	25.00	15.42	21.69	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0		.0000410 0
12/28/2001			37.11	10.00	25.00	12.96	24.15	₹50	₹0,5	2 015	40.5	<0.5	12/<0.5		

				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	МТВЕ	(mg/L)	pН
MW-6 Cont.									Acceptance Association						
3/14/2002			## 37 [1]	10.00	25.00	12.98	24/18	450	<0.5		<0.5	ili ≮0 5			
4/23/2002		<u> Minimalisti mini</u>	37.11	10.00	25.00	12.44	24.67	<50	<0.5	<0.5	<0.5	<0.5	3.1	-	
7/17/2002	= NP		37,11	10.00	25.00	14.65	22:46	₹50	≥0150	≤0.50	<0.50	<0.50	- ≤2,5	7.3	7.3
10/9/2002	NP		37.11	10.00	25.00	15.51	21.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.1	7.1
1/13/2003	iii NP ii ii		37.11	10,00	25,00	12.27	24.84	\$50	≮0.50	<0.50	<0.50	<0.50	2.5	6.8	6.8
04/07/03	NP		37.11	10.00	25.00	13.61	23.50	<50	<0.50	<0.50	< 0.50	<0.50	<0.50	6.6	6.6
7/9/2003			37.1	10.00	25,00	1434	22.77	<50	<0,50	<0.50	<0.50	<0.50	<0.50	7	7.0
02/05/2004		m m	37.11 37.11	10.00	25.00 25.00	13.38 13.31	23.73 25.80			 					
04/05/2004 07/13/2004	NP		37.11	10.00	25.00 25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	6,8
1/04/2004			37.11	10.00	25.00	14.95	22.16								
01/20/2005			37.11	10.00	25.00	12.57	24.54			acidorealembio —	 	######################################			
04/11/2005			37.11	10.00	25.00	12.05	25,06								
08/01/2005	NP	<u> 17.550 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10 17.10</u>	37.11	0.00	25.00	13.79	23.32	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	7.6
10/21/2005			37.11	10.00	25.00	14.60	22.51								
01/18/2006	-		37.11	10.00	25.00	11.80	25.31								
04/14/2006			37.11	10:00	25,00	10.92	26.19								
7/19/2006	NP		37.11	10.00	25.00	12.92	24.19	<50	<0.50	<0.50	<0.50	< 0.50	<0.50	1.3	6.9
10/24/2006				10.00	25,00	14.23	22.88								
1/15/2007	<u>-</u>		37.11	10.00	25.00	13.80	23.31	_							
MW-7							***************************************				104441100 W1074117811 Ep		718000X100000000000000000000000000000000	1025827875712470	
6/26/2000			38.68	12.0	27,00	14.34	24.34								
7/20/2000			38.68	12.0	27.00	15.26	23.42	14,000	5.4	<0.5	2.8	5.9 	71,000	nggeragens	
-9/19/2000			38.68	12.0	27.00	15.70	22.98	8,400	420	38	470	220	5,600		
12/21/2000			38.68	12.0	27.00	16.02	22.66		 154	 63	 46.3	 1127	 75.000/160.00		
3/13/2001			38.68	12.0 12.0	27,00 27.00	14.18 17.02	24,50 21.66	<2,000 <100,000	1,900	<0.000	40.5 <1,000	2,800	90,000/370,00		
9/18/2001 12/28/2001			38.68 38.68	12.0	27.00	17.02	21.00 23.87	<20,000	1,900 <200	<200	<200		84,000/72,000		
3/14/2002			38.68	12.0	27.00	14.60	24.08	<50.000	<500	<500	<500	***************************************	85,000/85,000		
4/23/2002			38.68	12.0	27.00	13.94	24.74	<20,000	530	200	220	800	67,000		

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2111, 1156 Davis St, San Leandro, 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 Cont.															
7/17/2002	NP	d	38.68	12.0	27.00	16.27	22.41	26,000	720	: \$250 <u>ii</u>	<250	860	20,000	6.9	6.9
10/9/2002	NP	đ	38.68	12.0	27.00	17.16	21.52	110,000	1,500	4,400	820	5,400	7,000/120,000	6.8	6.8
1/13/2003	NP	- f	38,68	12.0	27,00	13.82	24.86	<50,000	\$500	<500 □	<500	2,200	33,000	6.6	6.6
04/07/03	NP		38.68	12.0	27.00	14.52	24.16	<2,500	30	<25	<25	<25	710	7.0	7.0
7/9/2003			38.68	12.0	27.00	15.97	22.71	66,000	<500	<500	\$500	<500	36,000	6.7	6.7
02/05/2004	NP	п	38.54	12.0	27.00	14.75	23.79	55,000	300	<250	<250	<250	34,000	1.0	6.7
04/05/2004	NP		38,54	12.0	27,00	14.63	23.91	62,000	520	<250	<25 0	380	37,000	1.0	6.7
07/13/2004	NP		38.54	12.0	27.00	16.31	22.23	<100,000	<1,000	<1,000	<1,000	<1,000	56,000	0.7	6.7
11/04/2004			38.54	12:0	27:00	16.46	22.08	70,000	₹500	<500	< 5 00	<500	71,000	20	6.6
01/20/2005	NP	п	38.54	12.0	27.00	14.05	24.49	34,000	<250	<250	<250	<250	36,000	0.6	6.3
04/11/2005	NP		38.54	12.0	27.00	12.55	25,99	<2,500	11.46	£25	K25	625	1,200	0.7	6.8
08/01/2005	NP		38.54	12.0	27.00	15.11	23.43	<25,000	<250	<250	<250	<250	4,800	1.78	7.3
10/21/2005	ii NP	р	38.54	12.0	27.00	15.65	22.89	14,000	350	ii≤100 iii	<100	110	12,000	1.41	6.6
01/18/2006	NP	id ha balla pro kalded word a chormo da labalanta kalandamata ud.	38.54	12.0	27.00	12.60	25.94	16,000	310	<100	<100	110	13,000	0.87	6.7
04/14/2006	NP		38.54	12.0	27.00	12.09	26,45	€10,000	<100	≓(00	<100	<100	4,700	0.88	6.9
7/19/2006	NP	q	38.54	12.0	27.00	13.58	24.96	1,300	23	<10	18	26	1,600	1.1	6.8
10/24/2006	P		38.54	12.0	27.00	1519	23.41	6,800	100	<5.0	16	1115	14,000		6.93
1/15/2007	P	ti .	38.54	12.0	27.00	14.43	24.11	2,500	<100	<100	<100	<100	3,900	2.12	7.44
MW-8															
02/05/2004	P	m	38.91			15.61	23,30	3,600	75	<25 ¥	\$25	525	1,900	6.9	6.8
04/05/2004	P		38.91			15.64	23.27	1,900	<10	<10	<10	<10	1,200	3.2	6.7
07/13/2004	P		38.91			17.22	21.69	<1,000	<10	<10		<10	760	1.6	6.7
11/04/2004	P		38.91			17.19	21.72	960	<5.0	<5.0	<5.0	<5.0	820	1.8	6.7
01/20/2005	P		38.91			15,25	23.66	<2,500	<25	≥25	<25	₹25	1,400	15	6.4
04/11/2005	P		38.91			14.17	24.74	700	<5.0	<5.0	<5.0	<5.0	610	1.1	7.1
08/01/2005	P		38.91			16.10	22.81	<1,000	₹10	≥10	\$10	410	900	2.58	1717
10/21/2005	P	n	38.91			17.18	21.73	530	<5.0	<5.0	<5.0	<5.0	490	1.4	6.7
01/18/2006	Post P		38.91			13:60 #	25.31	<500	<5,0	<5.0	25.0	<5.0	500	2.28	6.6
04/14/2006	P	\$54/6.46F2230-145-43-54444488844V8488844V8	38.91			12.36	26.55	<500	<5.0	<5.0	<5.0	<5.0	300	1.97	6.6
7/19/2006	P. B.		38.91			14.75	24.16	4,500	<25	::<25	<25	<2.5	4,200	1.2	6,6

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

Station #2111, 1156 Davis St, San Leandro, CA

				Top of	Bottom of		Water Level	() () () () () () () () () ()							
Well and			TOC	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	Ì
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.															
10/24/2006		s s													
1/15/2007	P		38.91	-	-	15.67	23.24	<50	<0.50	<0.50	<0.50	<0.50	67	1.35	6.68

ABBREVIATIONS:

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

DO = Dissolved oxygen

DTW = Depth to water in ft bgs

It bgs = feet below ground surface

ft MSL = feet above mean sea level

GRO = Gasoline range organics

GWE = Groundwater elevation in ft MSL

mg/L = Milligrams per liter

MTBE = Methyl tert-butyl ether

NP = Well not purged prior to sampling

P = Well purged prior to sampling

TOC = Top of easing elevation in ft MSL

TPH-g = Total petroleum hydrocarbons as gasoline

μg/L = Micrograms per liter

FOOTNOTES:

- a = Product sheen noted.
- b = Well was sampled after batch extraction event,
- c = Chromatogram Pattern: Gasoline C6-C10 for GRO/TPH-g.
- d = Hydrocarbon pattern was present in the requested fuel quantitation range but did not resemble the pattern of the requested fuel for GRO/TPH-g.
- e = Discrete peak @C6-C7 for GRO/TPH-g.
- f = This sample was analyzed beyond the EPA recommended holding time for TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE. The results may still be useful for their intended purpose.
- g = Well not sampled due to the detection of free product (FP).
- h = GWE adjusted for FP: (thickness of FP x 0.8) + measured GWE.
- j = The closing calibration for benzene and total xylenes was outside acceptance limits by 1%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggested that calibration linearity was not a factor.
- k = The closing calibration was outside acceptance limits by 6%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggested that calibration linearity was not a factor.
- 1 = Toluene and MTBE were not confirmed using a secondary column in accordance to client contract.
- m = TOC elevations re-surveyed to NAVD '88 on February 23, 2004.
- n = Hydrocarbon result for GRO partly due to indiv. peak(s) in quantitative range.
- o = Light to moderate sheen.
- p = Result for MTBE partly due to individual peak(s) in quant, range.
- a = Gauged with tubing in well.
- r = Calib, verif, is within method limits but outside contract limits.
- s = well inaccessible

NOTES:

Beginning with the second quarter 2003 sampling event (04/07/03), TPH-g, BTEX, and MTBE analyzed by EPA method 8260B. Prior to 04/07/03, TPH-g was analyzed by EPA method 8015 modified and MTBE was analyzed by EPA methods 8020/ 8260B.

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

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

Values for DO and pH were obtained through field measurements.

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 #2111, 1156 Davis St, San Leandro, CA

Well and				Concentrati	ons in (μg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-1									
4/7/2003		20	1,100	<0.50	 	<0.50			
7/9/2003	<5,000	<1,000	690	<25	<25	**************************************			nditadenden menden eine men die die der der der der der der der der der de
02/05/2004	iii≪5,000	<1,000 ·	1,100	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25	32	25		
04/05/2004	<5,000	<1,000	1,700	<25	<25	38	<25	<25	а а
07/13/2004	42,000	780	730	10	<10	19	<10	10	ā
11/04/2004	<1,000	<200	380	<5.0	<5.0	12	<5.0	<5.0	
01/20/2005	<1,000	<200	570	==≤5.0 ⊨	<5.0	17	<5.0	<5.0	
04/11/2005	<5,000	<1,000	1,100	<25	<25	34	<25	<25	
08/01/2005	<2,000	<400	1,400	S10	E10	40	<10	≤10	
10/21/2005	<5,000	<1,000	970	<25	<25	<25	<25	<25	
01/18/2006	<1,500	<100	330	\$2.5		9.7	<2. 5	<2.5	
04/14/2006	<1,500	<100	310	<2.5	<2.5	9.3	<2.5	<2.5	
7/19/2006	≤1,500	₹100	180	25	25		25	<2.5	
10/24/2006 1/15/2007	<1,500 <1,500	<100 <100	360 220	<2.5 <2.5	<2.5 <2.5	10 6.8	<2.5 <2.5	<2.5	
II 1992 PA I RESERVA DA FERRE SERVE SE PRESENTA DE LE SERVE LE	214200	7100			749	UIO.			
MW-2									
04/05/2004	==<1,000	i≰200, ii.	750	<5.0	iii < 5.0 iii	5. 0, 5	5.0	₹5.0	
07/13/2004	<10,000	12,000	5,800	<50	<50	<50	<50	<50	a
08/31/2004									
01/20/2005	<10,000	<2,000	7,000	<50	<50	<50	<50	<50	
04/11/2005	<10,000	<2,000	2,700	₹50 250	₹50 -50	<50	<50	<50	
08/01/2005 01/18/2006	<10,000 <30,000	<2,000 <2,000	2,700 1,600	<50 <50	<50 < 50	<50 <50	<50 <50	<50 <50	
04/14/2006	<30,000 <30,000	<2,000	2,100	<50	<50 <50	>0 <50	~50 <50	<50	
7/19/2006	~30,000 	~2,000 ≪400	930	~30 	30 210		~10	<10	
1/15/2007	<6,000	1,900	1,400	<10			<10	<10	
MW-3	-,3	_,							
4/7/2003	 	20	75	 <0.50	<0.50	6.5			
7/9/2003	<100	<20 <20	,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	<0.50	<0.50	4.2			
02/05/2004	~100 ≪100	~20 *20	<u></u>	<0.50	<0.50 <0.50	4.2 64 3 18 6	 <0.50	 <0.50	i Concentración de la contraction de la c
				hdagamalanda					

Table 2. Summary of Fuel Additives Analytical Data Station #2111, 1156 Davis St, San Leandro, CA

Well and	Concentrations in (μg/L)								
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-3 Cont.	1								
04/05/2004	<100	₹20	- 14 153 E	<0.50	##Z0150	37	₹0.50	20.50	
07/13/2004	<100	44	766 35	<0.50	<0.50	3.2	< 0.50	<0.50	
11/04/2004	<i00 td="" €<=""><td>€20</td><td>25</td><td><0.50</td><td>1≤0.50</td><td>2,2</td><td>\$0.50</td><td>30.50</td><td></td></i00>	€20	25	<0.50	1 ≤0.50	2,2	\$0.50	30.50	
01/20/2005	<100	<20	27	<0.50	<0.50	2.6	<0.50	<0.50	The state of the s
04/11/2005	#<100 P	<20 ₪	121	<0.50	i::i≮0.50	2.0	<0.50	<0.50	
08/01/2005	<100	<20	23	<0.50	<0.50	1.9	<0.50	<0.50	
10/21/2005	€100	<20	19	<0.50	<0.50	2.0	6,50	<0.50	
01/18/2006	<300	<20	13	<0.50	< 0.50	1.3	<0.50	< 0.50	
04/14/2006	≰300	<20 ,	6.7	<0.50	F 0.50	0.61	<0.50	<0.50	
7/19/2006	<300	<20	11 ***********************************	<0.50	<0.50	0.72	<0.50 <0.50	<0.50 <0.50	
10/24/2006	300	<20	33	<0.50	<0.50	2.8 2.9	<0.50	<0.50	
1/15/2007	<300	<20	29	<0.50	<0.50	2.9	~u.5u	~0.30	
MW-4									HER LINE METERS
4/7/2003	<100	<20	24	<0.50	<0.50	7.3			
7/9/2003	<100	<20	34	<0.50	< 0.50	9.8			
02/05/2004	<100	<20	22	<0.50	<0.50	6.2	<0.50 <0.50	<0.50 <0.50	
04/05/2004 07/13/2004	<100 <100	<20 26	27 27	<0.50	<0.50 <0.50	7.2 74	<0.50 20.50	20:50 80:50	a
11/04/2004	<100	20 <20	19	<0.50	<0.50	5.1	<0.50	<0.50	ANDARAN ANDARAN KANDAN KANDAN MENENDERIKAN KANDAN KANDAN KANDAN KANDAN KANDAN KANDAN KANDAN KANDAN KANDAN KAND I
01/20/2005	\$100	-20 - ₹20 - 1	18	<0.50	<0.50	1111152	≥ 0.50	\$0.50	
04/11/2005	<100	<20	14	<0.50	<0.50	4.0	<0.50	<0.50	alkintisaklintuseiseniakuurundiklillikinin easkalintikklinnisevundessuudilisuundullin ja ja ja ja ja ja ja ja
08/01/2005		€20	18	€0.50	<0.50	3.9	\$0.50	<0.50	
10/21/2005	<100	<20	15	<0.50	<0.50	4.6	<0.50	<0.50	. The most interest of the special constraints of the constraints and the constraints of
01/18/2006	<300	<20	8.9	<0.50	<0.50	25	₹0.50	<0.50	
04/14/2006	<300	<20	4.2	<0.50	<0.50	1.3	<0.50	<0.50	THE RESIDENCE OF THE PROPERTY
7/19/2006	≪300 ₪	<20	3.4	<0.50	<0.50	0.69	<0.50	<0.50	
10/24/2006	<300	<20	3.5	<0.50	<0.50	0.91	<0.50	<0.50	
1/15/2007	₹300.	<20	3.8	<0.50	<0.50	0.98	<0.50	<0.50	
MW-5									
4/7/2003	<20,000	<4,000	3,700	<100	<100	<100			

Table 2. Summary of Fuel Additives Analytical Data Station #2111, 1156 Davis St, San Leandro, CA

Well and					ns in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-5 Cont.									
7/9/2003	<10.000 ⁴⁴	<2,000	6,500	450	######################################	<50			
02/05/2004	<10,000	<2,000	7,900	<50	<50	<50	<50	<50	апистикания под
04/05/2004	45,000	<1,000	2,000	\$25 E	<2 5	₹25	25	225	
07/13/2004	<10,000	3,200	4,000	<50	<50	<50	<50	<50	a
11/04/2004	<10,000	=<2,000	6300	<50 ₪	450	i≤50 iii ii	<50	450	
01/20/2005	<10,000	<2,000	6,900	<50	<50	<50	<50	<50	a
04/11/2005	<10,000	3,600	2,600	<50	<50	<50	<50	<50	
08/01/2005	<200	1,600	130	<1.0	<1.0	<1.0	<1.0	<1.0	
10/21/2005	<500	1,400	86	<2.5	<2.5	\$25	\$25	2 5	
01/18/2006	<1,500	2,200	100	<2.5	<2.5	<2.5	<2.5	<2.5	
04/14/2006	<1,500	2,100	240	2.5	<215	[25]	25	2.5	
7/19/2006	<1,500	2,800	84	<2.5	<2.5	<2.5	<2.5	√2.5	r Transporter service service de la composition de la composition de la composition de la composition de la comp
10/24/2006	<300	1,200	17	<0.50	<0.50	₹0.50	<0.50	\$0.50	
1/15/2007	<300	990	36	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-6							1		
4/7/2003	<100	2 0	₹0.50	<0,50	# 2050	<0.50			
7/9/2003	<100	<20	<0.50	<0.50	<0.50	<0.50		_	
07/13/2004	201	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a la companya di salah sa
08/01/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	THE PROPERTY OF THE PROPERTY O
7/19/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-7								-	
4/7/2003	₹5,000	≤1.000 ·	710	<25	<25	25			
7/9/2003	<100,000	<20,000	36,000	<500	<500	<500			
02/05/2004		≤000,000	34,000	\$250	<250	\$250	250	<250	
04/05/2004	<50,000	<10,000	37,000	<250	<250	<250	<250	<250	THE RESIDENCE OF THE PROPERTY
07/13/2004	<200,000	<40,000	56,000	<1,000	≤1,000	1,300	<1,000	<1,000	
11/04/2004	<100,000	<20,000	71,000	<500	<500	<500	<500	<500	ALGERIAN CONTRACTOR CO
01/20/2005	<50,000	<10,000	36,000	250	<250	<250	2250	250	
04/11/2005	<5,000	<1,000	1,200	<25	<25	<25	<25	<25	
08/01/2005	<50,000	<10,000	4,800	250	<250	250	<250	₹250	

Table 2. Summary of Fuel Additives Analytical Data Station #2111, 1156 Davis St, San Leandro, CA

Well and				Consentration	one in (ue/I)		-		
Sample Date	Ethanol	TBA	MTBE	Concentration DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1111112	1,2 2 -11		
MW-7 Cont.									
10/21/2005	<20,000	24,000	12,000	3100	<100	*100	is Kioo	₹100	
01/18/2006	<60,000	15,000	13,000	<100	<100	<100	<100	<100	parate contract to the same and
04/14/2006	≟≼60,000 li	4,000	4.700	2575000E	## <1 00	### ! \$100	## < 100	₹100	
7/19/2006	<6,000	720	1,600	<10	<10	<10	<10	<10	ptinistaniaattesiraateenkaniassaattiinininininininininintininininininin
10/24/2006	≤3,000	10,000	14,000	<5.0	<5.0		S5.0	€5.0	
1/15/2007	<60,000	9,300	3,900	<100	<100	<100	<100	<100	tasatsanatkaantententententententententententententen
MW-8									
02/05/2004	5,000	≤ 1,000	1,900	≥ 25	325	25	25		
04/05/2004	<2,000	<400	1,200	<10	<10	12	<10	<10	
	<2,000 <2,000	770	7,200			12 	<10 ≤10	<10 	
07/13/2004 11/04/2004	<1,000	<200	820	<5.0	<5.0	9.6	<5.0	<5.0	
01/20/2005	<5,000	~200 ≪1,000	1,400	<25 €25	25	LIABETALISTE EXSESSES PROFITARIOS SERVICE	Marian i denoma e incentro e siciro e e	l	
04/11/2005	<1,000	<200	610	<5.0	<5.0	/s25 8.1	<25 <5.0	<25 <5.0	
08/01/2005	<2.000	<400	900	***************************************		6.1 <10	\. ≥10	\\. <10	
10/21/2005		<200	490	<10 <5.0	<10 <5.0	<5.0	<5.0	<5.0	
01/18/2006	<1,000	<200 <200	500	5.0 5.0	5.0 FF 25.0		<5.0	5.0 	
	<3,000			invited live in the contraction					
04/14/2006	<3,000	<200	300	<5.0 <25	<5.0 25	<5.0 ####################################	<5.0 <25	<5.0 	
7/19/2006	<15,000	<1,000 	4,200		200000000000000000000000000000000000000	45		<25	
1/15/2007	<300	52	67	<0.50	<0.50	0.88	<0.50	<0.50	

ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

<= Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

μg/L = Micrograms per Liter

FOOTNOTES:

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

NOTES:

All volatile organic compounds analyzed using EPA Method 8260B.

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

Table 3. Historical Ground-Water Flow Direction and Gradient Station #2111, 1156 Davis St, San Leandro, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
7/20/2000	West-Northwest	0.006
9/19/2000	West-Northwest	0.004
12/21/2000	West-Northwest	0.004
3/13/2001	West-Northwest	0.005
5/30/2001	West-Northwest	0.004
9/18/2001	West-Northwest	0.003
12/28/2001	West-Northwest	0.003
3/14/2002	West	0,004
4/23/2002	West	0.006
7/17/2002	West	0,003
10/9/2002	West	0.002
1/13/2003	Southwest	0.0043
4/7/2003	West-Northwest	0.009 to 0.011
7/9/2003	West-Northwest	0.004
10/1/2003	West	0;002
2/5/2004	West	0.004
4/5/2004	West-Southwest	0.004
7/13/2004	West-Southwest	0.003
1:1/4/2004	West	0.003
1/20/2005	West	0.009
4/1/1/2005	North to West	0.009 to 0.01
8/1/2005	West to Northwest	0.006 to 0.004
10/21/2005	West	0.008
1/18/2006	North and West	0.01
4/14/2006	South	0.008
7/19/2006	Northwest to Southwest	0.004 to 0.008
10/24/2006	West	0.003
1/15/2007	Southwest	0.004

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 4. Approximate Cumulative Floating Product Recovered Station #2111, 1156 Davis Street, San Leandro, CA

Designation	Recovery Field Date	Floating Product Thickness (feet)	Floating Product Recovered (gallons)			
MW-2	06/28/99	0.45	0.30			
MW-2	06/30/99	0.015	0.01			
MW-2	07/07/99	0.06	0.04			
MW-2	07/23/99	0.008 0.02	0.01 0.01			
MW-2 MW-2	08/25/99 09/21/99	0.02	0.01			
MW-2	11/10/99	ND	0.00			
MW-2	02/09/00	ND	0.00			
MW-2	04/23/02	ND	0.00			
MW-2	07/17/02	Sheen	0.00			
MW-2	10/9/2002 (1)	NA o o c	0.00			
MW-2 MW-2	01/13/03 02/14/03	0.26 ND	0.13 0.00			
MW-2 MW-2	03/24/03	ND	0.00			
MW-2	04/07/03	0.05	0.00			
MW-2	05/23/03	ND	0.00			
MW-2	06/24/03	0.03	0.01			
MW-2	07/09/03	0.07	0.03			
MW-2 MW-2	07/31/03 09/04/03	0.05 0.02	0.03 0.01			
MW-2	10/01/03	0.07	0.02			
MW-2	11/12/03	0.59	0.36			
MW-2	12/11/03	0.05	0.07			
MW-2	02/05/04	0.13	0.02			
MW-2	02/16/04	0.02	0.01			
MW-2	03/11/04 03/30/04	ND ND	0.00 0.00			
MW-2 MW-2	03/30/04	ND ND	0.00			
MW-2	07/13/04	ND	0.00			
MW-2	08/31/04	ND	0.00			
MW-2	09/07/04	ND	0.00			
MW-2	11/04/04	0,22	0.14			
MW-2	11/29/04	0.02 0.24	0.05 0.16			
MW-2 MW-2	12/15/04 01/20/05		0.00			
MW-2	02/04/05	Sheen	0.00			
MW-2	03/23/05	Sheen	0.00			
MW-2	04/11/05	ND	0.00			
MW-2	05/12/05	ND	0.00			
MW-2	06/20/05	ND	0.00			
MW-2 MW-2	08/01/05 08/24/05	ND ND	0.00 0.00			
MW-2	09/16/05	ND	0.00			
MW-2	10/21/05	Sheen	0.00			
MW-2	01/18/06	Sheen	0.00			
MW-2	04/14/06	Sheen	0.00			
MW-2	07/19/06	ND	0.00			
MW-2	10/24/06 (1)	NA ND	0.00 0.00			
MW-2	01/15/07	1 110	V.VU			

FOOTNOTES:

⁽¹⁾ Free product encountered, but unable to gauge.

ND Non-detect

NA Not applicable

Table 5

Soil Vapor Extraction System and Ground-Water Extraction System

Monthly Discharge Analytical Results Summary

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

Date Sampled	Sampling Port	Matrix	GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	MtBE
	SVE-Influent	Air (mg/m³)	77	<0,5	<0.5	< 0.5	<0.5			9.4
	SVE A/S-Effluent	Air (mg/m³)	<10	0.19	< 0.10	0.10	< 0.20			5.1
	SVE-Effluent	Air (mg/m³)	<10	<0.10	< 0.10	< 0.10	< 0.20			<0.50
1/29/2007										
	GWE-Influent	Water (µg/L)	2,000	35	<12	23	14	<12	1,800	1,300
	GWE A/S-Effluent	Water (µg/L)	92	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	1,900	150
	GWE-Effluent	Water (µg/L)	<50	<0.50	<0.50	< 0.50	<0.50	<0.50	<20	< 0.50
	SVE-Influent	Air (mg/m ³)	400	102	<0.50	4.7	2,9 ²			21
	SVE A/S-Effluent	Air (mg/m³)	<10	< 0.10	<0.10	< 0.10	<0.20			< 0.50
	SVE-Effluent	Air (mg/m²)	<10	< 0.10	< 0.10	< 0.10	< 0.20			<0.50
2/5/2007										
	GWE-Influent	Water (µg/L)	1,400 ¹	25	<5.0	15	7.9	7.5	1,700	1,600
	GWE A/S-Effluent	Water (µg/L)	320 ¹	<0.50	< 0.50	< 0.50	<0.50	0.65	1,600	170
	GWE-Effluent	Water (µg/L)	<50	<0.50	<0.50	< 0.50	< 0.50	<0.50	<20	<0.50
	SVE-Influent	Air (mg/m³)	100	2,3 ²	<0.50	1.2	1,6			26
	SVE A/S-Effluent	Air (mg/m³)	11	0.10	< 0.10	0.13	< 0.20	***		10
	SVE-Effluent	Air (mg/m³)	<10	0.17	<0.10	0.28	< 0.20			< 0.50
3/5/2007										
	GWE-Influent	Water (µg/L)	1,500 ¹	20	<5.0	16	15	5.6	1,600	1,600
	GWE A/S-Effluent	Water (µg/L)	220 ¹	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	1,600	200
	GWE-Effluent	Water (µg/L)	<50	<0.50	< 0.50	<0.50	< 0.50	< 0.50	<20	< 0.50

Notes:

SVE

= Soil Vapor Extration

GWE = Groundwater Extration
mg/m3 = milligrams per meter cubed

mg/L = milligrams per liter
GRO = gasoline range organics
MtBE = methyl teritary butyl ether
TBA = tert-Butyl alcohol

-- = Not sampled.

 1 = Hydrocarbon result partly due to individual peak(s) in quantitation range 2 = Primary and confirm results varied by > 40% RPD

Table 6 Ground-Water Extraction System Performance Data

ARCO Service Station No.2111 1156 Davis Street, San Leandro, California

		Auget Auget				GR	10		Influent	<u>Ben</u>	zene		Influent	<u>M</u>	TBE	
		Totalizer	Monthly	Average Discharge	Influent Concen-	Removal	Net	Removed	Concen-	Removal	Net	Removed	P*************************************	Removal	Net	Removed
Sample	Date	Value	Volume	Rate	tration	Rate	Removed	To Date	tration	Rate	Removed	To Date	tration	Rate	Removed	To Date
ID-	M. Margrandig in caleforticated dis	otes (gallons)	(gallons)	(gpm)	(μg/L)	(lbs/day)	(pounds)	(pounds)	(µg/L)	(lbs/day)	(pounds)	(pounds)	(µg/L)	(lbs/day)	(pounds)	(pounds)
INFL	01/29/07	3,000	NA	NA	2,000	0,00	0.000	0.000	35	0.0E+00	0.000	0.000	1,300	0.0E+00	0.000	0.000
INFL	02/05/07	33,400	30,400	3.02	1,400	0.06	0.431	0.431	25.0	1.1E-03	0.008	0.008	1,600.00	5.3 E-02	0,368	0.368
INFL	03/05/07	130,565	97,165	2.41	1,500	0.04	1.175	1.606	20,0	6.5E-04	0.018	0.026	1,600.00	4.6E-02	1.297	1,664
REPORTI	NG PERIOD: FI	RST QUARTER	007					adi a u jud	Jerotajagiji:						aanti afaas	operativity tit
PERIOD V	VATER DISCHA	RGED (gal):		127,565												
AVERAGI	E DISCHARGE I	RATE (gpm)		2.53												
PERIOD P	OUNDS REMO	VED:					1.606				0.026				1.664	
PERIOD (ALLONS REM	OVED:					0.263				0.004				0.269	
TOTAL PO	DUNDS REMOV	ED:						1,606				0.026				1.664
TOTAL G	ALLONS REMO	OVED:		130,565				0.263				0.003				0,270
ESTIMAT	ED PERCENT C	ARBON LOADI	٧G:		5.5%										accordants	
Explanatio																
μg/L	= Micrograms po															
gpm	= Gallons per mi															
lbs/day	= Pounds per day															
GRO	= Gasoline range	_														
MtBE	= Methyl tertiary	-														
	gasoline = 6.1 pou															
_	penzene = 7.34 po															
	MtBE = 6.18 pour															
NA	 Not applicable 															

Assumptions:

1) Primary carbon loading = 2,000 pounds of carbon (includes primary carbon unit only)

2) Percent carbon loading calculation assumes a loading isotherm of 3% by weight

Table 7 Ground-Water Extraction System Effluent Data

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

1.73.500.00					Editor piliperio, h	sampana dance.	tara Enti	ent Concentr	ations		
				Average							
		Totalizer				ter transcription and the second section of	a sa asar asar a la sa sa sa				
		Value		The transfer of the second contract of the second	GRO	11 A. T. A. M. M. M. A. A. L. M.		Benzene	Xylenes	TBA	MiBE
ID	Sampled	Notes (gallons)	(gallons)	(gpm)	(µg/L)		(μg/L)	(hg/L)	(hB/r)	(ht/r)	(µg/L)
EFFL	01/29/07	3,000	NA	NA	<50	<0.50	<0.50	<0.50	<0.50	<20	<0.50
EFFL	02/05/07	33,400	30,400	3.02	<50	< 0.50	< 0.50	< 0.50	< 0.50	<20	<0.50
EFFL	03/05/07	130,565	97,165	2.41	<50	<0.50	<0.50	<0.50	< 0.50	<20	<0.50

REPORTING PERIOD: FIRST QUARTER 2007

PERIOD WATER DISCHARGED (gal): AVERAGE DISCHARGE RATE (gpm)

127,565 2.53

Explanations:

NA

μg/L = Micrograms per liter mg/L = Milligrams per liter = Gallons per minute gpm GRO = Gasoline Range Organics = Methyl tertiary butyl ether MtBE = Data not available

Table 8 OPERATIONAL UPTIME INFORMATION FOR THE SOIL VAPOR EXTRACTION SYSTEM

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

D-4-	Hr. Meter	No. of Days E	Between Sam	pling Dates	Cumulat	ive Days	Percent
Date	Reading	Total Days	Uptime	Days Down	Total Days	Uptime	Uptime
01/29/07	13.6	NA	NA	NA	NA	NA	NA
02/05/07	178.7	7	6.9	0.1	7	6.90	98%
03/05/07	437.6	28	10.8	17.2	35	17.7	39%

Table 9 SOIL VAPOR EXTRACTION SYSTEM FLOW RATES AND AIR SAMPLE ANALYTICAL RESULTS

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

Ĺ	Flow Rate	Vacuum	Sampling	Analytes (mg/m³)								
Date	(cfm)	(in Hg)	Port	GRO	Benzene	Toluene	Ethylbenzene	Xylenes	MtBE			
			Influent	77	<0.5	<0.5	<0.5	<1.0	9.4			
01/29/07	198	21.0	A/S-Effluent	<10	0.19	< 0.10	0.10	< 0.20	5.1			
			Effluent	<10	<0.10	< 0.10	< 0.10	< 0.20	< 0.50			
			Influent	400	10	<0.5	4.7	2.9	21			
02/05/07	200	19.0	A/S-Effluent	<10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.50			
			Effluent	<10	<0.10	< 0.10	< 0.10	<0.20	< 0.50			
			Influent	100	2.3	< 0.50	1.2	1.6	26			
03/05/07	180	24.0	A/S-Effluent	11	0.10	< 0.10	0.13	< 0.20	10			
			Effluent	<10	0.17	<0.10	0.28	<0.20	< 0.50			

Notes:

mg/m³ = milligrams per cubic meter

in Hg = inches of mercury

cfm = cubic feet per second
GRO = gasoline range organics

MtBE = methyl tertiary butyl ether

Table 10

SOIL VAPOR EXTRACTION SYSTEM EXTRACTION AND EMISSION RATES

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

Date		on Rate from (lbs/day)		ns Rate to re (lbs/day)		on Removal iency, %	Cumulative GRO Removal (lbs)	
	GRO	Benzene	GRO	Benzene	GRO	Benzene	Period	Total
1/29/2007	1.35	0.01	0.18	0.00	87.0%	80.0%	1.35	1.35
2/5/2007	7.10	0.18	0.18	0.00	97.5%	99.0%	29.18	30.53
3/5/2007	1,60	0.04	0.16	0.00	90.0%	92.6%	47.00	77.53

Air Permit Limits

DRE shall be at least 95%

Daily emmission rates will not exceed two lbs. VOC in any one day

Sample Calculations

Ext. Rate from =	70 cuft x	3100 mg x	0.028 cumeter	<u>lb</u>	x	1.440 min
Wells (lbs/day)	min	cu meter	cuft	454,000 mg		day
Dest. Removal =	19.27 - (<0.12)	x 100 = 99.35%				
Efficiency, %	19.27					

Figure 1
Cumulative GWE Mass Removal for GRO, Benzene, and MTBE
Station #2111, 1156 Davis Street, San Leandro, California

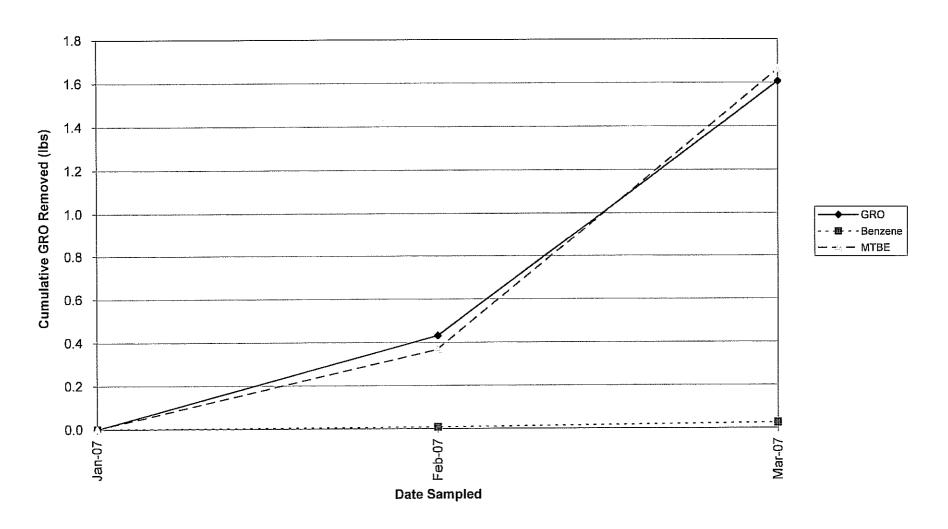
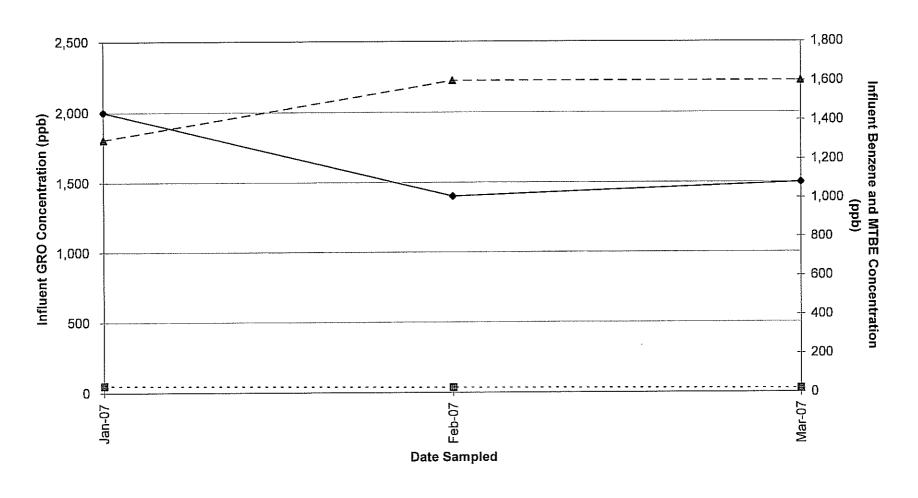


Figure 2

GWE Influent Concentrations for GRO, Benzene, and MTBE

Station #2111, 1156 Davis Street, San Leandro, California



— ← GRO - - 를 - - Benzene - - ▲ - MTBE

Figure 3

SVE System Influent Concentration vs.Time
Station #2111, 1156 Davis Street, San Leandro, California

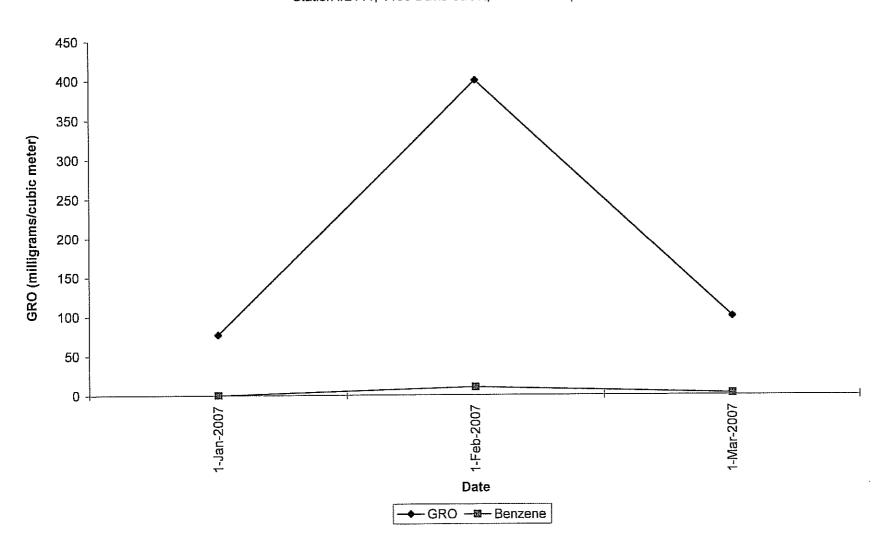
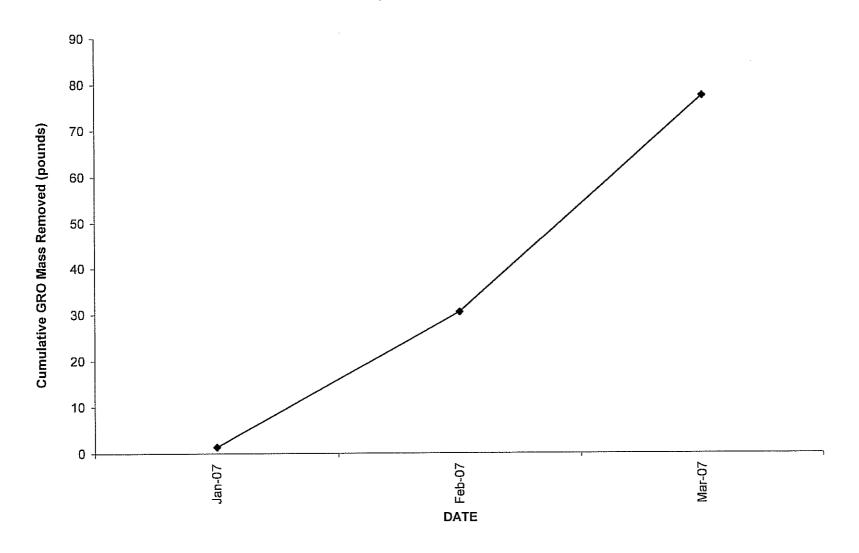
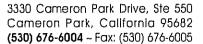


Figure 4
SVE System Cumulative GRO Mass Removed vs. Time
Station #2111, 1156 Davis Street, San Leandro, California



APPENDIX A

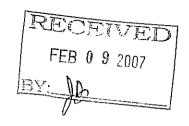
STRATUS GROUND-WATER SAMPLING DATA PACKAGE (INCLUDES FIELD DATA SHEETS AND LABORATORY ANALYTICAL REPORT WITH CHAIN-OF-CUSTODY DOCUMENTATION)





February 1, 2007

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



Re:

Groundwater Sampling Data Package, BP Service Station No. 2111, located at 1156 Davis Street., San Leandro, California (Quarterly Monitoring performed on January 15, 2007)

General Information

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

Phone Number: (530) 676-6000

On-Site Supplier Representative: Vince Zalutka / Greg Wilkins

Date: January 15, 2007

Arrival: 04:00 Departure: 08:15

Weather Conditions: Clear

Unusual Field Conditions: None

Scope of Work Performed: Quarterly monitoring and sampling

Variations from Work Scope: Wells MW-4 and MW-7 purged dry before three casing volumes

were removed.

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

Sincerely,

STRATUS ENVIRONMENTAL, INC.

ay K Johnson, P.G. Prøject Manager



Attachments:

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

CC: Mr. Paul Supple, BP/ARCO

SOURCE RECORD BILL OF LADING FOR NON-**RECOVERED FROM PURGEWATER** HAZARDOUS GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-PURGEWATER **HAZARDOUS** WHICH HAS BEEN RECOVERED GROUNDWATER FROM WELLS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY TO **SEAPORT ENVIRONMENTAL** BELSHIRE 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 Dulous Environmental, Inc. [Dulous, PO Box 2559, Orangevale, CA 95662, (916) 990-03331. 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. Dulous 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:

ARCO 2111	
Station #	
1156 Davis st. San Le	andro, CA
Station Address	,
Total Gallons Collected From Gro	oundwater Monitoring Wells:
	Any Othor
Added Equipment Rinse Water	Any Other Adjustments
TOTAL GALS. PECOVERED 93	loaded onto Stratus vehicle #
Stratus Project #	time date
E2111	0830 01 115 107
Signature	Ulhelmi

RECEIVED AT	time date
5786	1330 01 115 107
Unloaded by Signature	Mulla



Site Address: // The Davis 3+ E City <u>San Leanalm</u> C4 Sampled By 6. Wilkins / V. Zalwha

Site Number: ARCO 2/11
Project No. E2/11
Project PM Jay Johnson
Date Sampled 01-15-07

Site Contact Phone No.

		101-1															Sampled	
		Water L	evel Data	·			Purge Vo	lume Calci	ulations		T	Well E	Pitto N	/lethod	- -			
			<u></u>		Total	Casing			Three	Actual	<u> </u>	*****	uiger	neutod	DTW	mple Re	cord	Field
		l	Depth to		Depth of		Well	Multiplier		Waler			j	1		1		Data
١	Well ID	Time	water feet	Screen	1	Column	Diameter	Value	Volumes	Purged	No				At		J	Dissolved
ľ			 	feet	唐 feet	(A)	(inches)	(B)	(gallons)	(gallons)		Bailer	Pump	Other	Time	I Sample I.D.	Sample	
	MW-/			12.5	26.07	9.26	4	2	18.52	18.5			X	Othor			Time	(mg/L)
			15.00	12	26.78	11.78	4.	フ	23.56				→		16.15	MW-1	0717	
	NIN-3	1540	16.00	/2	26,17		4	. 2	20.34	7	<u> </u>		~	· · · · · · · · · · · · · · · · · · ·	15:00	14112-2	6650	1,85
	N161-4	0411	14.96	10	21.46		<u>у</u>		(3.0	7			X		1608	MW-3	0738	1.11
	MW-5	0411	14.63	9.5	23.6		2	.5	4.5	4.5		1.0		m@7g.	15.61	NILV-4	0800	1561
	MIV-6	0358	13.8		20.4		2	15		7.7	X	X			14.65	NIW-5	0430	2.8
	MW-7	0518	14.43	12	2626		4	2	23.66	7	\sim						NS/A	- "
1	YW-8	0444	15.67	18	39.0	23 .33	2	.5	11.67	12.11			<u> </u>	mp Iga	24.6	NIW-7	0612	2-12
		-							11.07	1200		X			15.68	MIV-8	0541	1.35
	TB	2111	0115	2007				<u> </u>										
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Site Address 1156 Davis of Site Number AR 602111

City San Leandro CA, Project No. E2111

Site Sampled by Guillins N. 2alullan Project PM Jay Trhinsm Date Sampled 01-15-07



Well ID /Viv	<u> </u>			0717	Well ID MW-2 06					
purge start time	0704	· ^	10 0	DOR	purge start time	0640	2		DOK	
	Temp C		conc		s	Temp C	1	cond		
time	1	7.60	2 580	0 8	time	18.5	6.80			
time	19.3	7.19	7 59:	29	time	19.9			$\overline{\mathfrak{l}}$	
time	17.4	7.12	- 540	18.5	time	17.8		592	-	
time					time			7,50		
purge stop time				pugre stop time	0646		<u> </u>	!		
Well ID /YIN.	-3		0	Well ID MW-			080	2.0		
purge start time 0727 No Oder					purge start time	0752	,			
	Temp C	pН	cond	gallons	16	Temp C	рН	cond	gallon	
ime	20.6	724	579	X	iime	21.1		608	Salloll Salloll	
ime	19.7	201	576	10	time		Dry		7	
ime	17.6	7.03	578	20	time	18.0	7.04		(9)	
ime					time		////	1000		
ourge stop time	0735)			purge stop time	Dw	270	,/		
Well ID MIN-	5			7430	Well ID MW-	7	- J			
urge start time	821	ler_			purge start time 0557 Odov					
	Temp C		cond	gallons		Temp C	Hq		gallons	
me	15.5				time	14.7			o	
me	16.3	6.73	803	4.5	time	14.8			7	
me					time	DK		07		
me					time					
urge stop time					purge stop time 1		Du	17	34/	
/ell ID MVV-	-8		0.		Well ID		_'/_			
urge start time	Bailer		No.	Oder	purge start time	· · · · · ·		·		
	Temp C	рH	cond	gallons		Temp C	рН	cond c	jallons	
ne	14.4	6.65	792	0	lime	1		20114	Janoris	
ne	15.8	6.70	783	6	lime				· · · · · · · · · · · · · · · · · · ·	
ne	14.3	6-68	807	12	lime					
ne					ime					
rge stop time					ourge stop time	·				
				<u> </u>	3- arab ditto					

Account: ARCO 2111

Sampled by: Gillikins / V. Zalufkn Date: 01-15-07

Meters Last Calibrated (Date) _____

Well ID	Box in good condition	Lock Missing (Replaced with new)	Water in Box	Bolts Missing	Bolts Stripped	Bolt-Holes Stripped	Cracked or Broken Lid	Cracked Box and/or Bolt - Holes	Misc.	Add'l – Notes and Other Stuff
MW-1	Χ.	,		Ч				***************************************		
MW-Z	X	-	,,	4					***	
MW-3						X				
NW-4	X					,				Had to Cutlock, Not replaced
MW-5										
MIW-G			\times							
MW-7	-X									
MW-8	X			4		<i>22</i>				
										·
		• ·								
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Atlantic

Chain of Custody Record

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Richfi	elc
Compa	any
A BP affiliated c	

Lab Name: TestAmerica

Project Name: ARCO 2111
BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

Sa TAT

On-site Time:	0400	Temp: 22	
Off-site Time:		Temp: 33	
Sky Conditions:	Clear		
Meteorological 1			
Vind Speed:		Direction: —	_

Lab Name: TestAmerica	BP/AR Facility No.; 2111	Consultant/Contractor: Stratus Environmental, Inc.			
Address: 885 Jarvis Drive	BP/AR Facility Address: 1156 Davis Street, Succession San Lean dwo	Address: 3330 Cameron Park Drive, Suite 550			
Morgan Hill, CA 95937	Site Lat/Long:	Cameron Park, CA 95682			
Lab PM: Lisa Race	California Global ID No.: T0600101764	Consultant/Contractor Project No.:			
Tele/Fnx: 408-782-8156 408-782-6308 (fax)	Enfos Project No.: G0C28-0023	Consultant/Contractor PM: Jay Johnson			
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one) Provision	Tele/Fax: (530) 676-6000 / (530) 676-6005			
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS: 04-Monitoring	Report Type & QC Level: Level 1 with EDF			
San Ramon, CA		E-mail EDD To: cjewitt@stratusinc.net			
Tele/Fax: 925-275-3506		Invoice to: Atlantic Richfield Co.			
Lnb Bottle Order No: Matrix		d Analysis			
Item Date Description Time Date Air	No. of Containers No. of Containers Unpreserved HASO4 HCI Methano1 GRO/BTEX/Oxy* Ethano1	Sample Point Lat/Long and Comments			
1. NW-1 0717 9/15/07 X	3	All by 8260			
2 MW-Z 0650	3 1 5 5 6	711 09 3200			
3 MW-3 0738 4 MW-4 0800	3 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	*Oxy = MTBE,TAME,ETBE,DIPE,TBA			
5 MW-5 0430	6 7 7 7				
6 MW-7 0612	3 757				
7 MW-8 0541	3				
8		(3.4.0)			
9 TB 211 101152007 0452 0/15/07 X	2	On HOLD			
10					
Sampler's Name: Vince Zalutka	Relinquished By / Affiliation Date Time	Accepted By / Affiliation Date Time			
Sampler's Name: Vince Zalutko Sampler's Company: Stratus	Vine golutie 1527	1/15/27			
Shipment Date: 1-13-07					
Shipment Method: Stratus					
Shipment Tracking No:					
Special Instructions: Please cc results to rmiller	Dbroadbentinc.com				
Custody Scals In Place: Yes / No Temp Blan	c: Yes / No Cooler Temp on Receipt: °F/C Trip Blank: Yes /	No MS/MSD Sample Submitted: Yes / No			
Control Company and American Territorian	170 The blank. Test	BP COC Rev. 5 10/11/2006			



30 January, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQA0563

Enclosed are the results of analyses for samples received by the laboratory on 01/16/07 08:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race

Senior Project Manager

CA ELAP Certificate # 1210

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





Stratus Environmental Inc. [Arco]
Project: ARCO #2111, San Leandro, CA
MQA0563
3330 Cameron Park Dr., Suite 550
Project Number: G0C28-0023
Cameron Park CA, 95682
Project Manager: Jay Johnson
01/30/07 12:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MQA0563-01	Water	01/15/07 07:17	01/16/07 08:15
MW-2	MQA0563-02	Water	01/15/07 06:50	01/16/07 08:15
MW-3	MQA0563-03	Water	01/15/07 07:38	01/16/07 08:15
MW-4	MQA0563-04	Water	01/15/07 08:00	01/16/07 08:15
MW-5	MQA0563-05	Water	01/15/07 04:30	01/16/07 08:15
MW-7	MQA0563-06	Water	01/15/07 06:12	01/16/07 08:15
MW-8	MQA0563-07	Water	01/15/07 05:41	01/16/07 08:15
ГВ211101152007	MQA0563-08	Water	01/15/07 04:52	01/16/07 08:15

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





Project: ARCO #2111, San Leandro, CA

MQA0563 Reported: 01/30/07 12:46

Project Number: G0C28-0023 Project Manager: Jay Johnson

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MQA0563-01) Water	Sampled: 01/15/07 07:17	Received:	01/16/0	7 08:15					
Gasoline Range Organics (C4-	C12) 470	250	ug/l	5	7A23017	01/23/07	01/24/07	LUFT GCMS	***************************************
Surrogate: 1,2-Dichloroethane-c	14	104 %	60-	145	н	n	п	ļt	
MW-2 (MQA0563-02) Water	Received:	01/16/0	7 08:15						
Gasoline Range Organics (C4-	C12) 5000	1000	սք/[20	7A23017	01/23/07	01/24/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-c	14	102 %	60-	145	11	11	11	n .	
MW-3 (MQA0563-03) Water	Sampled: 01/15/07 07:38	Received:	01/16/0	7 08:15					
Gasoline Range Organics (C4-C	12) ND	50	ug/l	1	7A24020	01/24/07	01/25/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-c	97 %	60-	145	"	n	"	n		
MW-4 (MQA0563-04) Water	Sampled: 01/15/07 08:00	Received:	01/16/0	7 08:15					
Gasoline Range Organics (C4-C	12) ND	50	ug/l	1	7A23017	01/23/07	01/24/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-c	14	111%	60-	145	"	n	н	"	
MW-5 (MQA0563-05) Water	Sampled: 01/15/07 04:30	Received:	01/16/0	7 08:15					
Gasoline Range Organics (C4-	C12) 73	50	ug/l	1	7A23017	01/23/07	01/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-c	14	101 %	60-	145	н	řř.	**	n	
MW-7 (MQA0563-06) Water	Sampled: 01/15/07 06:12	Received:	01/16/0	7 08:15					
Gasoline Range Organics (C4-	C12) 2500	500	ug/l	10	7A26027	01/26/07	01/27/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-c	14	102 %	60-	145	n	11	"	u	
MW-8 (MQA0563-07) Water	Sampled: 01/15/07 05:41	Received:	01/16/0	7 08:15					
Gasoline Range Organics (C4-C	12) ND	50	ug/l	1	7A26004	01/26/07	01/26/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-c	14	104 %	60-	145	"	11	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA0563 Reported: 01/30/07 12:46

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-1 (MQA0563-01) Water	Sampled: 01/15/07 07:17	Received:	01/16/07	08:15					
tert-Amyl methyl ether	6.8	2.5	ug/l	5	7A23017	01/23/07	01/24/07	EPA 8260B	
Benzene	2.8	2,5	"	11	IJ	n n	11	0	
tert-Butyl alcohol	ND	100	n	И	II	п	*1	u u	
Di-isopropyl ether	ND	2,5	"	II .	I)	и	11	0	
1,2-Dibromoethane (EDB)	ND	2.5	"	II	17	'n	†I	O .	
1,2-Dichloroethane	ND	2.5	"	"	1)	и	†I	(I	
Ethanol	ND	1500	"	ļi	n	"	H	ti ti	
Ethyl tert-butyl ether	ND	2.5	"	п	n		ti .	a	
Ethylbenzene	14	2.5	"	ıı	17	и	H	et .	
Methyl tert-butyl ether	220	2.5	U	ļi	D)	'n	n	O .	
Toluene	ND	2.5	H	И	lt .	'n	tt	Ø	
Xylenes (total)	8.4	2.5	n	И	It	И	()	n	
Surrogate: Dibromofluoromethan	ie	102 %	75-	130	"	ır	n	n	
Surrogate: 1,2-Dichloroethane-d-	4	104 %	60-	145	ir	18	n .	"	
Surrogate: Toluene-d8		101 %	70-	130	"	"	"	11	
Surrogate: 4-Bromofluorobenzene	ę	99 %	60-	120	n	n	"	H	
MW-2 (MQA0563-02) Water	Sampled: 01/15/07 06:50	Received:	01/16/07	08:15					
tert-Amyl methyl ether	ND	10	ug/l	20	7A23017	01/23/07	01/24/07	EPA 8260B	
Benzene	51	10	11	II.	u	11	Д	H	
tert-Butyl alcohol	1900	400	a	II	u	R	11	H	
Di-isopropyl ether	ND	10	a	ıı	II .	н	**	H	
1,2-Dibromoethane (EDB)	ND	10	II .	и	II.	R	†I	н	
1,2-Dichloroethane	ND	10	ų.	11	IJ	Л	*1	It	
Ethanol	ND	6000	I)	II	19	Л	*1	н	
Ethyl tert-butyl ether	ND	10	0	И	n	и	#1	H	
Ethylbenzene	49	10	0	и	"	и	#	P	
Methyl tert-butyl ether	1400	10	0	11	11	н	n	ft.	
Toluene	ND	10	Ħ	И	U	И	11	ti.	
Xylenes (total)	34	10	H	н	1)	П	11	tt .	
Surrogate: Dibromofluoromethan	e	101%	75	130	"	"	ii .	"	
Surrogate: 1,2-Dichloroethane-d-	<i>‡</i>	102 %	60-	145	n	n	11	#	
Surrogate: Toluene-d8		102 %	70-	130	#	"	n	"	
Surrogate: 4-Bromofluorobenzene	2	102 %	60-	120	ø	"	n	"	





Project: ARCO #2111, San Leandro, CA

MQA0563 Reported: Project Number: G0C28-0023 Project Manager: Jay Johnson 01/30/07 12:46

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

Reporting Analyte Result Limit Units Dilution Batch Prepared Analyzed Method Notes MW-3 (MQA0563-03) Water Sampled: 01/15/07 07:38 Received: 01/16/07 08:15 0.50 ug/l 7A24020 01/24/07 01/25/07 tert-Amyl methyl ether **EPA 8260B** 0.50 ND Benzene tert-Butyl alcohol ND 20 Di-isopropyl ether ND 0.50 1,2-Dibromoethane (EDB) ND 0.50 1.2-Dichloroethane ND 0.50 Ethanol ND 300 Ethyl tert-butyl ether ND 0.50 0.50 Ethylbenzene 0.61 Methyl tert-butyl ether 29 0.50 Toluene ND 0.50 Xylenes (total) ND 0.50 Surrogate: Dibromofluoromethane 98 % 75-130 Surrogate: 1,2-Dichloroethane-d4 97% 60-145 93 % Surrogate: Toluene-d8 70-130 Surrogate: 4-Bromofluorobenzene 90% 60-120 MW-4 (MQA0563-04) Water Sampled: 01/15/07 08:00 Received: 01/16/07 08:15 7A23017 01/23/07 01/24/07 EPA 8260B tert-Amyl methyl ether 0.980.50 ug/l Benzene ND 0.50 tert-Butyl alcohol ND 20 Di-isopropyl ether ND 0.50 1,2-Dibromoethane (EDB) ND 0.50 1,2-Dichloroethane ND 0.50 Ethanol ND 300 Ethyl tert-butyl ether ND 0.50 0.50 Ethylbenzene 0.96 Methyl tert-butyl ether 0.50 3.8 Toluene ND 0.50 ND 0.50 Xylenes (total) Surrogate: Dibromofluoromethane 100% 75-130 Surrogate: 1,2-Dichloroethane-d4 111% 60-145 Surrogate: Toluene-d8 100% 70-130 Surrogate: 4-Bromofluorobenzene 103 % 60-120





Project: ARCO #2111, San Leandro, CA

MQA0563 Reported: 01/30/07 12:46

Project Number: G0C28-0023 Project Manager: Jay Johnson

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-5 (MQA0563-05) Water	Sampled: 01/15/07 04:30	Received:	01/16/07	7 08:15					
tert-Amyl methyl ether	ND	0.50	ug/l	1	7A23017	01/23/07	01/23/07	EPA 8260B	
Benzene	ND	0.50	ti	н	11	"	**	II .	
tert-Butyl alcohol	990	20	11	11	If	"	Ħ	II .	
Di-isopropyl ether	ND	0.50	U	†I	И	*1	ti .	H	
1,2-Dibromoethane (EDB)	ND	0.50	ų	*I	н	п	п	If	
1,2-Dichloroethane	ND	0.50	11	41	и	41	ш	If	
Ethanol	ND	300	"	U	"	er er	II.	и	
Ethyl tert-butyl ether	ND	0.50	17	(1	"	u	п	It	
Ethylbenzene	ND	0.50	17	IJ	и	U	11	II.	
Methyl tert-butyl ether	36	0.50	14	n	н	0	11	H	
Toluene	ND	0.50	I†	11	"	ď	ij	II .	
Xylenes (total)	ND	0.50	lt		н	0		n	
Surrogate: Dibromofluoromethan	e	100 %	75-	130	11	n	U	n	
Surrogate: 1,2-Dichloroethane-d-	!	101%	60-	145	rr	и	n	н	
Surrogate: Toluene-d8		101 %	70-	130	rr .	n	"	"	
Surrogate: 4-Bromofluorobenzena	2	99 %	60-	120	IT	н	н	n	
•	Sampled: 01/15/07 06:12	Received:	01/16/07	7 08:15					
tert-Amyl methyl ether	ND	100	ug/l	200	7A23017	01/23/07	01/24/07	EPA 8260B	
Benzene	ND	100	1)	U	н	0	U	e	
tert-Butyl alcohol	9300	4000	t)	11	н	U	U	u	
Di-isopropyl ether	ND	100	U	łi .	н	ď	ti	u	
1,2-Dibromoethane (EDB)	ND	100	U	11	R	44	Ħ	(1	
1,2-Dichloroethane	ND	100	n	†1	II	ti	n	u	
Ethanol	ND	60000	11	Ħ	ıı	*1	н	tı	
Ethyl tert-butyl ether	ND	100	**	ti	н	*1	**	tt	
Ethylbenzene	ND	100	n	†I	II	11	Ħ	ti	
Methyl tert-butyl ether	3900	100	H	41	и	n	Ħ	fi	
Тоlиепе	ND	100	H	9	и	н	n	ii	
Xylenes (total)	ND	100	l†	*1	II	ti .	H	t)	
Surrogate: Dibromofluoromethan	e	101 %	75-	130	n	л	At .	IJ	
Surrogate: 1,2-Dichloroethane-de	1	116%	60-	145	rr	11	11	11	
Surrogate: Toluene-d8		100 %	70-	130	"	н	,,	"	
Surrogate: 4-Bromofluorobenzene	2	105 %	60-	120	n	n	IF	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson

MQA0563 Reported: 01/30/07 12:46

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-8 (MQA0563-07) Water	Sampled: 01/15/07 05:41	Received:	01/16/07 0	18:15					
tert-Amyl methyl ether	0.88	0.50	ug/l	1	7A26004	01/26/07	01/26/07	EPA 8260B	
Benzene	ND	0.50	*1	I+	*1	u	H	н	
tert-Butyl alcohol	52	20	*1	If	tj	U	II.	п	
Di-isopropyl ether	ND	0.50	*1	и	*1	"	It	н	
1,2-Dibromoethane (EDB)	ND	0.50	tt	И	ø	1)	If	н	
1,2-Dichloroethane	ND	0.50	ti	н	u	II .	If	н	
Ethanol	ND	300	ti	И	n	0	Iŧ	и	
Ethyl tert-butyl ether	ND	0.50	*1	#	n	0	И	н	
Ethylbenzene	ND	0.50		н	ti ti	U	lt .		
Methyl tert-butyl ether	67	0.50	u	н	ti	0	tt .	н	
Toluene	ND	0.50	tı	н	0	U	n	н	
Xylenes (total)	ND	0.50	**	И	Ħ	rı	H	п	
Surrogate: Dibromofluoromethan	e	95 %	75-13	30	11	11	"	n	
Surrogate: 1,2-Dichloroethane-d-	<i>‡</i>	104 %	60-14	15	н	n	tt	rr .	
Surrogate: Toluene-d8		97%	70-13	30	"	"	**	"	
Surrogate: 4-Bromofluorobenzene	2	100 %	60-12	20	11	n	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA0563 Reported: 01/30/07 12:46

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 7A23017 - EPA 5030B P/T / LUF	T GCMS									
Blank (7A23017-BLK1)				Prepared of	& Analyze	ed: 01/23/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.70		"	2.50		108	60-145			
Laboratory Control Sample (7A23017-BS2))			Prepared a	& Analyze	d: 01/23/	07			
Gasoline Range Organics (C4-C12)	389	50	ug/l	500		78	75-140	**********************	***************************************	······
Surrogate: 1,2-Dichloroethane-d4	2.59		Ħ	2.50		104	60-145			
Laboratory Control Sample Dup (7A23017-	-BSD2)			Prepared o	& Analyze	d: 01/23/	07			
Gasoline Range Organics (C4-C12)	421	50	ug/i	500		84	75-140	8	20	
Surrogate: 1,2-Dichloroethane-d4	2.73		н	2.50		109	60-145	~		····
Batch 7A24020 - EPA 5030B P/T / LUF	T GCMS									
Blank (7A24020-BLK1)				Prepared o	& Analyze	d: 01/24/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.41		l1	2.50		96	60-145	•		
Laboratory Control Sample (7A24020-BS2))			Prepared a	& Analyze	d: 01/24/	07			
Gasoline Range Organics (C4-C12)	630	50	ug/l	500		126	75-140			
Surrogate: 1,2-Dichloroethane-d-l	2.54		"	2,50		102	60-145			
Laboratory Control Sample Dup (7A24020-	BSD2)			Prepared o	& Analyze	:d: 01/24/	07			
Gasoline Range Organics (C4-C12)	615	50	ug/l	500		123	75-140	2	20	
Surrogate: 1,2-Dichloroethane-d4	2.47		n	2.50	***************************************	99	60-145			
Batch 7A26004 - EPA 5030B P/T / LUB	T GCMS									
Blank (7A26004-BLK1)				Prepared a	& Analyze	:d: 01/26/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l	······································						
Surrogate: 1,2-Dichloroethane-d4	2.40		п	2.50		96	60-145	·		





Project: ARCO #2111, San Leandro, CA

MQA0563 Reported:

Project Number: G0C28-0023 Project Manager: Jay Johnson

01/30/07 12:46

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
Analyte	Resuit	Limii	Units	Level	Resun	70REC	Limits	KPD	Limii	Notes
Batch 7A26004 - EPA 5030B P/T /	LUFT GCMS									
Laboratory Control Sample (7A26004	-BS2)			Prepared	& Analyze	ed: 01/26/	07			
Gasoline Range Organics (C4-C12)	651	50	ug/l	500		130	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.65		11	2,50		106	60-145			H-144-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
Laboratory Control Sample Dup (7A2		Prepared & Analyzed: 01/26/07								
Gasoline Range Organics (C4-C12)	526	50	ug/l	500		105	75-140	21	20	R.A
Surrogate: 1,2-Dichloroethane-d4	2.51		,,	2,50		100	60-145			
Batch 7A26027 - EPA 5030B P/T /	LUFT GCMS									
Blank (7A26027-BLK1)				Prepared	& Analyze	ed: 01/26/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.48	***************************************	11	2.50		99	60-145			
Laboratory Control Sample (7A26027	-BS2)			Prepared	& Analyzo	ed: 01/26/	07			
Gasoline Range Organics (C4-C12)	571	50	ug/l	500		114	75-140	***************************************		
Surrogate: 1,2-Dichloroethane-d-l	2.58		#	2.50		103	60-145			
Laboratory Control Sample Dup (7A2	6027-BSD2)			Prepared	& Analyzo	ed: 01/26/	07			
Gasoline Range Organics (C4-C12)	600	50	ug/l	500		120	75-140	5	20	
Surrogate: 1,2-Dichloroethane-d4	2.63		н	2.50		105	60-145		***************************************	***************************************





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

MQA0563 Reported:

Cameron Park CA, 95682

Project Number: G0C28-0023 Project Manager: Jay Johnson

01/30/07 12:46

RPD

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

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7A23017 - EPA 5030B P/T	/ EPA 8260B									
Blank (7A23017-BLK1)				Prepared	& Analyza	ed: 01/23/0	07			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	ıı							
tert-Butyl alcohol	ND	5.0	и							
Di-isopropyl ether	ND	0.50	п							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	и							
Ethanol	ND	300	#1							
Ethyl tert-butyl ether	ND	0.50	ii.							
Ethylbenzene	ND	0.50	#1							
Methyl tert-butyl ether	ND	0.50	†1							
Toluene	ND	0.50	†I							
Xylenes (total)	ND	0.50	#1							
Surrogate: Dibromofluoromethane	2.44		n n	2.50		98	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.70		H	2.50		108	60-145			
Surrogate: Toluene-d8	2.49		"	2.50		100	70-130			
Surrogate: 4-Bromofluorobenzene	2.58		It	2.50		103	60-120			
Laboratory Control Sample (7A2301)	7-BS1)			Prepared	& Analyze	ed: 01/23/0	07			
tert-Amyl methyl ether	12.2	0.50	ug/l	10.0		122	65-135			
Benzene	11.4	0.50	11	10.0		114	70-125			
tert-Butyl alcohol	202	5.0	**	200		101	60-135			
Di-isopropyl ether	12.2	0.50	ti	10.0		122	70-130			
1,2-Dibromoethane (EDB)	12.4	0.50	U	10.0		124	80-125			
1,2-Dichloroethane	12.0	0.50	0	10.0		120	75-125			
Ethanol	240	300	0	200		120	15-150			
Ethyl tert-butyl ether	12.0	0.50	0	10.0		120	65-130			
Ethylbenzene	12.0	0.50	17	10.0		120	70-130			
Methyl tert-butyl ether	11.5	0.50	P	10.0		115	50-140			
Toluene	11.4	0.50	I†	10.0		114	70-120			
Xylenes (total)	35,5	0.50	It	30.0		118	80-125			
Surrogate: Dibromofluoromethane	2.53		rt	2.50		101	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.67		"	2.50		107	60-145			
Surrogate: Toluene-d8	2.55		"	2.50		102	70-130			
Surrogate: 4-Bromofluorobenzene	2.71		n	2.50		108	60-120			





Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA0563 Reported: 01/30/07 12:46

RPD

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

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7A23017 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7A23017-MS1)	Source: M	QA0563-05		Prepared	& Analyze	ed: 01/23/	07			
tert-Amyl methyl ether	11.7	0.50	ug/l	10.0	ND	117	65-135			
Benzene	10.9	0.50	н	10.0	ND	109	70-125			
ert-Butyl alcohol	1120	5.0	и	200	990	65	60-135			
Di-isopropyl ether	12.0	0.50	И	10.0	ND	120	70-130			
1,2-Dibromoethane (EDB)	11.6	0.50	н	10.0	ND	116	80-125			
1,2-Dichloroethane	11.5	0.50	н	10.0	ND	115	75-125			
Ethanol	222	300	и	200	ND	111	15-150			
Ethyl tert-butyl ether	11.5	0.50	H	10.0	ND	115	65-130			
Ethylbenzene	11.3	0.50	и	10.0	ND	113	70-130			
Methyl tert-butyl ether	45.3	0.50	н	10.0	36	93	50-140			
Foluene	10.7	0.50	и	10.0	ND	107	70-120			
Xylenes (total)	33.0	0.50	и	30.0	ND	110	80-125			
Surrogate: Dibromofluoromethane	2.60		п	2.50		104	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.72		rr	2.50		109	60-145			
Surrogate: Toluene-d8	2.56		rt	2.50		102	70-130			
Surrogate: 4-Bromofluorobenzene	2.72		11	2.50		109	60-120			
Matrix Spike Dup (7A23017-MSD1)	Source: M	QA0563-05		Prepared	& Analyzo	:d: 01/23/	07			
ert-Amyl methyl ether	11.4	0.50	ug/l	10.0	ND	114	65-135	3	25	
Benzene	11.2	0.50	ŧi	10.0	ND	112	70-125	3	15	
ert-Butyl alcohol	1190	5.0	Ü	200	990	100	60-135	6	35	
Di-isopropyl ether	10.7	0.50	u	10.0	ND	107	70-130	11	35	
,2-Dibromoethane (EDB)	12.3	0.50	U	10.0	ND	123	80-125	6	15	
,2-Dichloroethane	10.9	0.50	U	10.0	ND	109	75-125	5	10	
Ethanol	247	300	н	200	ND	124	15-150	11	35	
Ethyl tert-butyl ether	10.7	0.50	U	10.0	ND	107	65-130	7	35	
Ethylbenzene	11.4	0.50	n	10.0	ND	114	70-130	0.9	15	
Methyl tert-butyl ether	42.8	0.50	U	10.0	36	68	50-140	6	25	
roluene -	11.6	0.50	H	10.0	ND	116	70-120	8	15	
Kylenes (total)	34.7	0.50	U	30.0	ND	116	80-125	5	15	
Surragate: Dibromofluoromethane	2.55		11	2.50		102	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.38		,,	2.50		95	60-145			
Surrogate: Toluene-d8	2.55		"	2.50		102	70-130			
Surrogate: 4-Bromofluorobenzene	2,56		11	2.50		102	60-120			





Project: ARCO #2111, San Leandro, CA

Spike

Source

MQA0563 Reported:

%REC

Project Number: G0C28-0023 Project Manager: Jay Johnson

01/30/07 12:46

RPD

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

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7A24020 - EPA 5030B P/T	/ EPA 8260B									
Blank (7A24020-BLK1)				Prepared	& Analyze	ed: 01/24/0	07			
tert-Amyl methyl ether	ND	0.50	ug/l	-						~
Benzene	ND	0.50	n							
tert-Butyl alcohol	ND	20	H							
Di-isopropyl ether	ND	0.50	If							
1,2-Dibromoethane (EDB)	ND	0.50	14							
1,2-Dichloroethane	ND	0.50	If							
Ethanol	ND	300	H							
Ethyl tert-butyl ether	ND	0.50	И							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	н							
Toluene	ND	0.50	н							
Xylenes (total)	ND	0.50	41							
Surrogate: Dibromofluoromethane	2.35	***************************************	11	2.50		94	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.41		n	2.50		96	60-145			
Surrogate: Toluene-d8	2.36		H	2.50		94	70-130			
Surrogate: 4-Bromofluorobenzene	2.21		**	2.50		88	60-120			
Laboratory Control Sample (7A24020)-BS1)			Prepared o	& Analyze	d: 01/24/0)7			
tert-Amyl methyl ether	11.5	0.50	ug/l	10.0		115	65-135			
Benzene	11.1	0.50	и	0,01		111	70-125			
ert-Butyl alcohol	207	20	н	200		104	60-135			
Di-isopropyl ether	11.5	0.50	н	0,01		115	70-130			
1,2-Dibromoethane (EDB)	11.2	0.50	И	10,0		112	80-125			
1,2-Dichloroethane	11.6	0.50	И	10.0		116	75-125			
Ethanol	210	300	H	200		105	15-150			
Ethyl tert-butyl ether	11.6	0.50	и	10.0		116	65-130			
Ethylbenzene	11.4	0.50	н	10,0		114	70-130			
Methyl tert-butyl ether	11.1	0.50	н	10.0		111	50-140			
l'oluene	11.1	0.50	и	10.0		111	70-120			
Xylenes (total)	34.5	0.50	и	30.0		115	80-125			
Surrogate: Dibromofluoromethane	2.64		B	2.50		106	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.43		"	2.50		97	60-145			
Surrogate: Toluene-d8	2,50		"	2.50	•	100	70-130			
Surrogate: 4-Bromofluorobenzene	2.46		n	2.50		98	60-120			





Analyte

Project: ARCO #2111, San Leandro, CA

Spike

Level

Source

Result

%REC

MQA0563 Reported:

RPD

Limit

%REC

Limits

RPD

Project Number: G0C28-0023 Project Manager: Jay Johnson

01/30/07 12:46

Notes

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

Units

Reporting

Result

11.1

11.2

36.8

2.57

2.42

2.47

2.46

0.50

0.50

0.50

10.0

10.0

30.0

2.50

2.50

2,50

2,50

ND

ND

ND

111

112

123

103

97

99

98

Limit

Matrix Spike (7A24020-MS1)	Source: MQ	A0591-02		Prepared &	& Analyz	ed: 01/24	07			
tert-Amyl methyl ether	12.0	0.50	ug/l	10.0	ND	120	65-135			
Benzene	11,4	0.50	R	10.0	ND	114	70-125			
tert-Butyl alcohol	226	20	н	200	ND	113	60-135			
Di-isopropyl ether	12.1	0.50	"	10.0	ND	121	70-130			
1,2-Dibromoethane (EDB)	12.1	0.50	н	10.0	ND	121	80-125			
1,2-Dichloroethane	12.0	0.50	n	10.0	ND	120	75-125			
Ethanol	231	300	11	200	ND	116	15-150			
Ethyl tert-butyl ether	11.9	0.50	U	0.01	ND	119	65-130			
Ethylbenzene	12.3	0.50	II.	0.01	ND	123	70-130			
Methyl tert-butyl ether	11.7	0.50	u	10.0	ND	117	50-140			
Toluene	11.5	0.50	н	0,01	ND	115	70-120			
Xylenes (total)	36.8	0.50	19	30.0	ND	123	80-125			
Surrogate: Dibromofluoromethane	2.54		n	2.50		102	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.46		"	2.50		98	60-145			
Surrogate: Toluene-d8	2.57		"	2.50		103	70-130			
Surrogate: 4-Bromofluorobenzene	2.48		"	2.50		99	60-120			
Matrix Spike Dup (7A24020-MSD1)	Source: MQ	A0591-02		Prepared &	& Analyze	ed: 01/24/	07			
tert-Amyl methyl ether	11.5	0.50	ug/l	10,0	ND	115	65-135	4	25	
Benzene	11.5	0.50	It	10.0	ND	115	70-125	0.9	15	
tert-Butyl alcohol	230	20	IP	200	ND	115	60-135	2	35	
Di-isopropyl ether	11.9	0.50	I†	10.0	ND	119	70-130	2	35	
1,2-Dibromoethane (EDB)	11.3	0.50	17	10.0	ND	113	80-125	7	15	
1,2-Dichloroethane	11.9	0.50	17	10.0	ND	119	75-125	8.0	10	
Ethanol	251	300	o	200	ND	126	15-150	8	35	
Ethyl tert-butyl ether	11.4	0.50	"	10.0	ND	114	65-130	4	35	
Ethylbenzene	12.1	0.50	It	10.0	ND	121	70-130	2	15	

Methyl tert-butyl ether

Surrogate: Toluene-d8

Surrogate: Dibromofluoromethane

Surrogate: 1,2-Dichloroethane-d4

Surrogate: 4-Bromofluorobenzene

Toluene

Xylenes (total)

5

3

25

15 15

50-140

70-120

80-125

75-130

60-145

70-130

60-120





Project: ARCO #2111, San Leandro, CA

Spike

Source

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA0563 Reported: 01/30/07 12:46

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 7A26004 - EPA 5030B P/T	EPA 8260B									
Blank (7A26004-BLK1)				Prepared of	& Analyze	ed: 01/26/0)7			
tert-Amyl methyl ether	ND	0.50	ug/l	_						
Benzene	ND	0.50	н							
tert-Butyl alcohol	ND	20	н							
Di-isopropyl ether	ND	0.50	ıt							
1,2-Dibromoethane (EDB)	ND	0.50	n							
1,2-Dichloroethane	ND	0.50	H							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	11							
Ethylbenzene	ND	0.50	n							
Methyl tert-butyl ether	ND	0.50	11							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	п							
Surrogate: Dibromofluoromethane	2.33		11	2,50		93	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.40		11	2.50		96	60-145			
Surrogate: Toluene-d8	2.43		"	2.50		97	70-130			
Surrogate: 4-Bromofluorobenzene	2.52		"	2.50		101	60-120			
Laboratory Control Sample (7A26004	I-BS1)			Prepared a	& Analyze	ed: 01/26/0	37			
tert-Amyl methyl ether	12,3	0.50	ug/l	10.0		123	65-135			
Benzene	11.5	0.50	11	10,0		115	70-125			
tert-Butyl alcohol	197	20	iı	200		98	60-135			
Di-isopropyl ether	10.6	0.50	Ħ	10.0		106	70-130			
1,2-Dibromoethane (EDB)	11.4	0.50	ti	0.01		114	80-125			
1,2-Dichloroethane	11.5	0,50	U	0.01		115	75-125			
Ethanol	218	300	tt	200		109	15-150			
Ethyl tert-butyl ether	11.3	0.50	u	0.01		113	65-130			
Ethylbenzene	11.6	0.50	U	10.0		116	70-130			
Methyl tert-butyl ether	11.4	0.50	U	10.0		114	50-140			
Toluene	11.1	0.50	U	10.0		111	70-120			
Xylenes (total)	34.6	0,50	D	30,0		115	80-125			
Surrogate: Dibromofluoromethane	2.49		н	2.50		100	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.61		"	2.50		104	60-145			
Surrogate: Toluene-d8	2,50		n	2.50		100	70-130			
Surrogate: 4-Bromofluorobenzene	2.73		n	2.50		109	60-120			





Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA0563 Reported: 01/30/07 12:46

RPD

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

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7A26004 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7A26004-MS1)	Source: MO	QA0684-01		Prepared	& Analyz	ed: 01/26/	07			
tert-Amyl methyl ether	12.2	0.50	ug/l	10.0	ND	122	65-135			
Benzene	12.2	0.50	"	10.0	ND	122	70-125			
tert-Butyl alcohol	200	20	и	200	ND	100	60-135			
Di-isopropyl ether	11.0	0.50	II .	10.0	ND	110	70-130			
1,2-Dibromoethane (EDB)	11.2	0.50	n n	10.0	ND	112	80-125			
1,2-Dichloroethane	10.5	0.50		10.0	0.30	102	75-125			
Ethanol	228	300	ıı .	200	ND	114	15-150			
Ethyl tert-butyl ether	11.2	0.50		10.0	ND	112	65-130			
Ethylbenzene	11.8	0.50	μ	10.0	ND	118	70-130			
Methyl tert-butyl ether	18.4	0.50	и	0.01	7.2	112	50-140			
Toluene	11.4	0.50	R	10.0	ND	114	70-120			
Xylenes (total)	35.3	0.50	И	30.0	ND	118	80-125			
Surrogate: Dibromofluoromethane	2.33		"	2.50		93	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.20		11	2.50		88	60-145			
Surrogate: Toluene-d8	2.40		#	2.50		96	70-130			
Surrogate: 4-Bromofluorobenzene	2.59		"	2.50		104	60-120			
Matrix Spike Dup (7A26004-MSD1)	Source: MC	QA0684-01		Prepared	& Analyze	ed: 01/26/	07			
tert-Amyl methyl ether	12.7	0.50	ug/l	10.0	ND	127	65-135	4	25	
Benzene	12.6	0.50	*1	10.0	ND	126	70-125	3	15	LM
tert-Butyl alcohol	204	20	Ħ	200	ND	102	60-135	2	35	
Di-isopropyl ether	11.4	0.50	n	10.0	ND	114	70-130	4	35	
1,2-Dibromoethane (EDB)	11.7	0.50	11	10.0	ND	117	80-125	4	15	
1,2-Dichloroethane	11.0	0.50	*1	10.0	0.30	107	75-125	5	10	
Ethanol	222	300	n	200	ND	111	15-150	3	35	
Ethyl tert-butyl ether	11.7	0.50	Ħ	10.0	ND	117	65-130	4	35	
Ethylbenzene	11.9	0.50	Ħ	10.0	ND	119	70-130	0.8	15	
Methyl tert-butyl ether	19.1	0.50	Ħ	10.0	7.2	119	50-140	4	25	
Toluene	11.7	0.50	**	10.0	ND	117	70-120	3	15	
Xylenes (total)	35.9	0.50	н	30.0	ND	120	80-125	2	15	
Surrogate: Dibromofluoromethane	2,40		fr	2.50		96	75-130	***************************************		
Surrogate: 1,2-Dichloroethane-d4	2.24		"	2.50		90	60-145			
Surrogate: Toluene-d8	2.43		"	2.50		97	70-130			
Surrogate: 4-Bromofluorobenzene	2.58		"	2.50		103	60-120			



MQA0563

Reported:



Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682 Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023

Project Manager: Jay Johnson 01/30/07 12:46

Notes and Definitions

RPD exceeds limit due to matrix interf.; % recovs. within limits RA PVHydrocarbon result partly due to individ. peak(s) in quant. range MS and/or MSD above acceptance limits. See Blank Spike(LCS). LM DET Analyte DETECTED ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified NR Not Reported dry Sample results reported on a dry weight basis RPD Relative Percent Difference

Page	/ of	. /
Luge	 ∪₁	

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

Project Name:

ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

On-site Time: 0400 Temp: 22
Off-site Time: 0815 Temp: 33
Sky Conditions: Clear
Meteorological Events:
Wind Speed: Direction:

Lab Name: TestAmerica	BP/AR Facility No.: 2111	Consultant/Contractor: Stratus Environmental, Inc.						
Address: 885 Jarvis Drive	BP/AR Facility Address: 1156 Davis Street, Szamento- San Lean A	Address: 3330 Cameron Park Drive, Suite 550						
Morgan Hill, CA 95937	Site Lat/Long:	Cameron Park, CA 95682						
Lab PM: Lisa Race	California Global ID No.: T0600101764	Consultant/Contractor Project No.:						
Tele/Fax: 408-782-8156 408-782-6308 (fax)	Enfos Project No.: G0C28-0023	Consultant/Contractor PM: Jay Johnson						
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one) Provision	Tele/Fax: (530) 676-6000 / (530) 676-6005						
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS: 04-Monitoring	Report Type & QC Level: Level 1 with EDF						
San Ramon, CA	Sub Phase/Task: 03-Analytical	E-mail EDD To: cjewitt@stratusinc.net						
Tele/Fax: 925-275-3506	Cost Element: 01-Contractor labor	Invoice to: Atlantic Richfield Co.						
Lab Bottle Order No; Matrix	Preservative Requ	uested Analysis .						
Item Date Description Time Date Air	Monof Containers No. of Containers No. of Containers Hi,SO, HICI Methanol GRO/BTEX/Oxy* Ethanol EDB	Sample Point Lat/Long and Comments						
1 MW-1 017 P/15/07 X	01 3							
2 · MW-2 6650 1	02 3 1 5 7 7	All by 8260						
3 - MW-3 0738	03 3	*Oxy = MTBE,TAME,ETBE,DIPE,TBA						
4 NW-4 0800	04 3 /////							
5 MW-5 0430	05 6							
6 - MW-7 0612	0, 3							
7 · MW-8 094/	07 3 XXXX							
8		(3.400)						
9 - TB 211 101152007 0452 045/5/67 X	08 2 -	On HOLD						
10								
Sampler's Name: Vince Zalutka	Relinquished By / Affiliation Date Time	Accepted By / Affiliation Date Time						
Sampler's Name: Vince Zalutko Sampler's Company: Stratus	time galatia 1507 1327							
Shipment Date: 1-13-07	1/15/67-1630	1/19/07/1721						
Shipment Method: Stratus		hillie m. 1/16 081						
Shipment Tracking No:		7.0 03.1						
Special Instructions: Please cc results to rmillen	@broadbentinc.com							
Custody Seals In Place: (Ye) / No Temp Blan	Custody Seals In Place: Key / No Temp Blank: Yes) No Cooler Temp on Receipt: 4. K ° F/C Trip Blank: Kes / No MS/MSD Sample Submitted Yes / No							
		es y No MS/MSD Sample Submitted (Yes)No						

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: REC. BY (PRINT) WORKORDER:	ARCO TULIE NG. MQAOSG3 DPRIATE RESPONSE		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	<u>08</u> 	06			For Regula DRIÑKING WASTE W	atory Purposes? WATER YES / NO ATER YES / NO
		LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION	PRESER VATIVE	pН	SAMPLE	DATE SAMPLED	REMARKS: CONDITION (ETC.)
Custody Seal(s)	Present / Absent Intact / Broken*						MATTICA.	GAWIFLED	CONDITION (ETC.)
Chain-of-Custody Traffic Reports or	Pesent / Absent*					<u></u>			
Packing List:	Present / Absept								
4. Áirbill:	Airbill / Sticker							1/	
5. Airbill #:D(0010117	Présent / Absent 7349161						10	<i>Y</i>	
6. Sample Labels:	Present / Absent			<u> </u>			19/		
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody		-	- "			\mathcal{Z}		
8. Sample Condition:	Ir(a)t / Broken* /						الكوا		-
9. Does information on	Leaking*					<u> </u>			
traffic reports and sa agree?	Imple labels	•		. 3	X				
10. Sample received within				-/-					
hold time? 11. Adequate sample volur	(e) / No*								
received?	(e) / No*				· · ·				
12. Proper preservatives us				· · · · ·					
 Trip Blank / Temp Bland (circle which, if yes) 	K Heceived? . Yes / No*								**************************************
4. Read Temp:	4.8°C								
Corrected Temp: Is corrected temp 4 +/-	2°C? (res) / No**								
Acceptance range for samples re			<u> </u>					3 .	
*Exception (if any): META	LS / DFF ON ICE					_			
or Problem COC	in a marity on the property of the second party of the second party of the second party of the second party of	*IF CUPOL	ED CONTÁCT PRO JECT	taleachtricheaphraige eine	antherance whie	in a sala (in livi	anis pour exercis		

Replaces Rev 7 (07/19/05) Effective 09/13/06 *IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION

Page _____ of ___

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATIONS

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:

1Q07 GEO_WELL 2111

Submittal Date/Time:

4/20/2007 10:34:13 AM

Confirmation Number:

8972292840

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Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: 1Q07 GW Monitoring **Submittal Type:** GW Monitoring Report

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ARCO #2111 Regional Board - Case #: 01-1903 1156 DAVIS SAN FRANCISCO BAY RWOCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# TITLE QUARTER 2310616910 1Q07 GW Monitoring Q1 2007 SUBMITTED BY SUBMIT DATE **STATUS** Broadbent & Associates, Inc. 4/20/2007 PENDING REVIEW SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 7 # FIELD POINTS WITH DETECTIONS 7 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES WATER METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH **TESTED FOR REQUIRED ANALYTES?** LAB NOTE DATA QUALIFIERS QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS O METHOD HOLDING TIME VIOLATIONS 0 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 0 LAB BLANK DETECTIONS 0 DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK Υ - MATRIX SPIKE N - MATRIX SPIKE DUPLICATE М - BLANK SPIKE Υ - SURROGATE SPIKE WATER SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% Y MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% Y SURROGATE SPIKES % RECOVERY BETWEEN 85-115% Ν BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% N

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Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0107 **Submittal Type:** Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 **1156 DAVIS** SAN FRANCISCO BAY RWOCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# QUARTER 4827573418 Monthly System Sampling 0107 Q1 2007 SUBMITTED BY SUBMIT DATE STATUS PENDING REVIEW Broadbent & Associates, Inc. 4/20/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 5 # FIELD POINTS WITH DETECTIONS 3 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL 1 AIR - UNK. ORIGIN SAMPLE MATRIX TYPES METHOD QA/QC REPORT SW8020F **METHODS USED** TESTED FOR REQUIRED ANALYTES? N MISSING PARAMETERS NOT TESTED: - SW8020F REQUIRES ETBE TO BE TESTED - SW8020F REQUIRES TAME TO BE TESTED - SW8020F REQUIRES DIPE TO BE TESTED - SW8020F REQUIRES TBA TO BE TESTED - SW8020F REQUIRES DCA12 TO BE TESTED - SW8020F REQUIRES EDB TO BE TESTED LAB NOTE DATA QUALIFIERS Υ **OA/OC FOR 8021/8260 SERIES SAMPLES** TECHNICAL HOLDING TIME VIOLATIONS n METHOD HOLDING TIME VIOLATIONS n LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT ถ 0 LAB BLANK DETECTIONS DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK ٧ N - MATRIX SPIKE - MATRIX SPIKE DUPLICATE N

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WATER SAMPLES FO	R 8021/8260 SERIES		
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Submittal Title: Monthly System Sampling 0107 Submittal Type: Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 **1156 DAVIS** SAN FRANCISCO BAY RWQCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# QUARTER 7701080262 Monthly System Sampling 0107 Q1 2007 SUBMITTED BY SUBMIT DATE STATUS PENDING REVIEW Broadbent & Associates, Inc. 4/20/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED # FIELD POINTS WITH DETECTIONS 0 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES AIR - UNK. ORIGIN METHOD OA/OC REPORT SW8020F METHODS USED TESTED FOR REQUIRED ANALYTES? MISSING PARAMETERS NOT TESTED: - 5W8020F REQUIRES ETBE TO BE TESTED - SW8020F REQUIRES TAME TO BE TESTED - SW8020F REQUIRES DIPE TO BE TESTED - SW8020F REQUIRES TBA TO BE TESTED - SW8020F REQUIRES DCA12 TO BE TESTED - SW8020F REQUIRES EDB TO BE TESTED LAB NOTE DATA QUALIFIERS Ν QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS 0 METHOD HOLDING TIME VIOLATIONS 0 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 0 LAB BLANK DETECTIONS 0 DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK - MATRIX SPIKE M - MATRIX SPIKE DUPLICATE Ν - BLANK SPIKE Y - SURROGATE SPIKE

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Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0107 Submittal Type: Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 1156 DAVIS SAN FRANCISCO BAY RWOCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# QUARTER 3996611654 Monthly System Sampling 0107 Q1 2007 SUBMITTED BY SUBMIT DATE **STATUS** Broadbent & Associates, Inc. 4/20/2007 PENDING REVIEW SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 6 # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES WATER METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH TESTED FOR REQUIRED ANALYTES? MISSING PARAMETERS NOT TESTED: - 8260FA REQUIRES ETHANOL TO BE TESTED LAB NOTE DATA QUALIFIERS N **OA/OC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS** O METHOD HOLDING TIME VIOLATIONS 0 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT n LAB BLANK DETECTIONS 0 DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK - MATRIX SPIKE N - MATRIX SPIKE DUPLICATE N - BLANK SPIKE Y - SURROGATE SPIKE Υ WATER SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% Y MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% Y SURROGATE SPIKES % RECOVERY BETWEEN 85-115% Y

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Facility Global ID: T0600101764
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Submittal Title: Monthly System Sampling g0107 **Submittal Type:** Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 1156 DAVIS SAN FRANCISCO BAY RWQCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) TITLE CONF# **QUARTER** Monthly System Sampling g0107 5817514002 Q1 2007 SUBMITTED BY SUBMIT DATE **STATUS** Broadbent & Associates, Inc. PENDING REVIEW 4/25/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES WATER METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH **TESTED FOR REQUIRED ANALYTES?** MISSING PARAMETERS NOT TESTED: - 8260FA REQUIRES ETHANOL TO BE TESTED LAB NOTE DATA QUALIFIERS Υ QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS 0 METHOD HOLDING TIME VIOLATIONS n LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 0 0 LAB BLANK DETECTIONS DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK - MATRIX SPIKE N - MATRIX SPIKE DUPLICATE М - BLANK SPIKE Υ - SURROGATE SPIKE Υ 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% Y SURROGATE SPIKES % RECOVERY BETWEEN 85-115% Y

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Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0107 Submittal Type: Soil & Water Investigation Report

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CONF # TITLE 6700142621 Monthly Sy SUBMITTED BY Broadbent & Associates, Inc.		QUARTER Q1 2007 TUS NDING REVIEW
# FIELD POINTS SAMPLED # FIELD POINTS WITH DETECTION # FIELD POINTS WITH WATER SAME SAMPLE MATRIX TYPES METHOD QA/QC REPOR METHODS USED TESTED FOR REQUIRED ANALYTES MISSING PARAMETERS NOT TESTED FOR REQUIRES ETHANOL TO THE PARAMETERS LAB NOTE DATA QUALIFIERS	IS MPLE DETECTIONS ABOVE MCL T S7 STED:	1 1 1 WATER 8260FA,8260TPH N
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Facility Global ID: T0600101764 Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0207 Submittal Type: Soil & Water Investigation Report

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CONF# QUARTER Monthly System Sampling 0207 6205835103 Q1 2007 SUBMITTED BY SUBMIT DATE **STATUS**

PENDING REVIEW Broadbent & Associates, Inc. 4/25/2007

SAMPLE DETECTIONS REPORT

- # FIELD POINTS SAMPLED # FIELD POINTS WITH DETECTIONS 2 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL
- SAMPLE MATRIX TYPES AIR - UNK. ORIGIN

METHOD QA/QC REPORT

METHODS USED SW8020F TESTED FOR REQUIRED ANALYTES? N

MISSING PARAMETERS NOT TESTED:

- SW8020F REQUIRES ETBE TO BE TESTED
- SW8020F REQUIRES TAME TO BE TESTED
- SW8020F REQUIRES DIPE TO BE TESTED
- SW8020F REQUIRES TBA TO BE TESTED
- SW8020F REQUIRES DCA12 TO BE TESTED
- SW8020F REQUIRES EDB TO BE TESTED

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 ٥ LAB BLANK DETECTIONS 0 DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK - MATRIX SPIKE N - MATRIX SPIKE DUPLICATE N - BLANK SPIKE - SURROGATE SPIKE

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SURROGATE SPIKES % RECOVERY BETWEEN 85-115%			n/a
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Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0207 Submittal Type: Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 **1156 DAVIS** SAN FRANCISCO BAY RWOCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# TITLE QUARTER Monthly System Sampling 0207 5546986937 Q1 2007 SUBMITTED BY SUBMIT DATE **STATUS** Broadbent & Associates, Inc. PENDING REVIEW 4/25/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED б # FIELD POINTS WITH DETECTIONS 4 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES WATER METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH TESTED FOR REQUIRED ANALYTES? MISSING PARAMETERS NOT TESTED: - 8260FA REQUIRES ETHANOL TO BE TESTED LAB NOTE DATA QUALIFIERS Y QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS METHOD HOLDING TIME VIOLATIONS LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT n LAB BLANK DETECTIONS DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK - MATRIX SPIKE - MATRIX SPIKE DUPLICATE - BLANK SPIKE Υ - SURROGATE SPIKE WATER SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% N MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% Υ SURROGATE SPIKES % RECOVERY BETWEEN 85-115% N

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Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0307 **Submittal Type:** Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 **1156 DAVIS** SAN FRANCISCO BAY RWQCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) QUARTER CONF# 9927806198 Monthly System Sampling 0307 Q1 2007 SUBMITTED BY SUBMIT DATE **STATUS** Broadbent & Associates, Inc. PENDING REVIEW 4/25/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES AIR - UNK, ORIGIN METHOD QA/QC REPORT METHODS USED SW8020F **TESTED FOR REQUIRED ANALYTES?** M MISSING PARAMETERS NOT TESTED: - SW8020F REQUIRES ETBE TO BE TESTED - SW8020F REQUIRES TAME TO BE TESTED - SW8020F REQUIRES DIPE TO BE TESTED - SW8020F REQUIRES TBA TO BE TESTED - SW8020F REQUIRES DCA12 TO BE TESTED - SW8020F REQUIRES EDB TO BE TESTED LAB NOTE DATA QUALIFIERS N QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS 0 METHOD HOLDING TIME VIOLATIONS 0 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 0 LAB BLANK DETECTIONS 0 DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK ٧ - MATRIX SPIKE Ν - MATRIX SPIKE DUPLICATE Ν - BLANK SPIKE Υ - SURROGATE SPIKE

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% n/a SURROGATE SPIKES % RECOVERY BETWEEN 85-115% n/a BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% n/a SOIL SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% n/a MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% n/a SURROGATE SPIKES % RECOVERY BETWEEN 70-125% n/a BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% п/а FIELD QC SAMPLES SAMPLE COLLECTED DETECTIONS > REPDL QCTB SAMPLES Ν 0 OCEB SAMPLES Ν 0 QCAB SAMPLES Ν 0

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CONTACT SITE ADMINISTRATOR.

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Confirmation Number: 9028054356

Date/Time of Submittal: 4/25/2007 10:43:26 AM

Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0307 Submittal Type: Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 1156 DAVIS SAN FRANCISCO BAY RWOCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# QUARTER 9028054356 Monthly System Sampling 0307 Q1 2007 SUBMITTED BY SUBMIT DATE **STATUS** Broadbent & Associates, Inc. PENDING REVIEW 4/25/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 5 # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES AIR - UNK. ORIGIN METHOD QA/QC REPORT METHODS USED SW8020F TESTED FOR REQUIRED ANALYTES? Ν MISSING PARAMETERS NOT TESTED: - SW8020F REQUIRES ETBE TO BE TESTED - SW8020F REQUIRES TAME TO BE TESTED - SW8020F REQUIRES DIPE TO BE TESTED - SW8020F REQUIRES TBA TO BE TESTED - SW8020F REQUIRES DCA12 TO BE TESTED - SW8020F REQUIRES EDB TO BE TESTED LAB NOTE DATA QUALIFIERS Υ QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS n METHOD HOLDING TIME VIOLATIONS Λ LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT n LAB BLANK DETECTIONS 0 DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK Υ - MATRIX SPIKE Ν - MATRIX SPIKE DUPLICATE Ν - BLANK SPIKE Y - SURROGATE SPIKE Υ

WATER SAMPLES FO	P 8021/8260 SEDIES		1
	PIKE DUPLICATE(S) % RECOVE	EDV DETWEEN CE 43ED/	
MATRIX STIKE / MATRIX ST	PIKE DUPLICATE(S) 78 RECOVE PIKE DUPLICATE(S) RPD LESS	THAN DOM	n/a
	COVERY BETWEEN 85-115%	THAN 30%	n/a
			n/a
BLANK SPIKE / BLANK SPIK	E DUPLICATES % RECOVERY	BETWEEN 70-130%	n/a
SOIL SAMPLES FOR 8	024/9260 CEDIES		
	~~~~		- 1
	PIKE DUPLICATE(S) % RECOVE		n/a
	TIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a
SURROGATE SPIKES % REC			n/a
BLANK SPIKE / BLANK SPIK	E DUPLICATES % RECOVERY I	BETWEEN 70-130%	п/а
			MANAGERANCHAN DERI
FIELD QC SAMPLES			
SAMPLE	COLLECTED	DETECTIONS >	REPDL
QCTB SAMPLES	N	0	
QCEB SAMPLES	N.	0	
QCAB SAMPLES	N	0	
1		_	

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Confirmation Number: 6330172121

Date/Time of Submittal: 4/25/2007 12:48:42 PM

Facility Global ID: T0600101764
Facility Name: ARCO #2111

**Submittal Title:** Monthly System Sampling 0307 **Submittal Type:** Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 1156 DAVIS SAN FRANCISCO BAY RWQCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# QUARTER 6330172121 Monthly System Sampling 0307 Q1 2007 STATUS SUBMITTED BY SUBMIT DATE Broadbent & Associates, Inc. 4/25/2007 PENDING REVIEW SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 6 # FIELD POINTS WITH DETECTIONS 5 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES WATER METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH TESTED FOR REQUIRED ANALYTES? MISSING PARAMETERS NOT TESTED: - 8260FA REQUIRES ETHANOL TO BE TESTED LAB NOTE DATA QUALIFIERS Y **QA/QC FOR 8021/8260 SERIES SAMPLES** TECHNICAL HOLDING TIME VIOLATIONS n METHOD HOLDING TIME VIOLATIONS n LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT ٥ LAB BLANK DETECTIONS n DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK - MATRIX SPIKE M - MATRIX SPIKE DUPLICATE M - BLANK SPIKE - SURROGATE SPIKE 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% Υ SURROGATE SPIKES % RECOVERY BETWEEN 85-115%

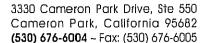
BLANK SPIKE / BLANK S	PIKE DUPLICATES % RECOVERY	BETWEEN 70-130%	Y
SOIL SAMPLES FO	R 8021/8260 SERIES		
MATRIX SPIKE / MATRIX	SPIKE DUPLICATE(S) % RECOVE	RY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX	SPIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a
SURROGATE SPIKES %	RECOVERY BETWEEN 70-125%		n/a
5011110 Ci 11 C 51 11 C 5 70	120012111 22111211 10 22014		, -
	PIKE DUPLICATES % RECOVERY	BETWEEN 70-130%	n/a
	PIKE DUPLICATES % RECOVERY	BETWEEN 70-130%  DETECTIONS >	n/a
BLANK SPIKE / BLANK S FIELD QC SAMPLE	PIKE DUPLICATES % RECOVERY	adagaan 18 mpaay 200 bala 1600 biraan 2 mbahany 24 mbahada 1974 biraan 1974 biraan 1974 biraan 1974 biraan 197	n/a
BLANK SPIKE / BLANK S FIELD QC SAMPLE: SAMPLE	PIKE DUPLICATES % RECOVERY    S  COLLECTED	adagaan 18 mpaay 200 bala 1600 biraan 2 mbahany 24 mbahada 1974 biraan 1974 biraan 1974 biraan 1974 biraan 197	n/a

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#### APPENDIX C

STRATUS REMEDIATION SYSTEM OPERATION AND MAINTENANCE DATA PACKAGES (INCLUDES FIELD DATA SHEETS, LABORATORY REPORTS, AND CHAIN-OF-CUSTODY DOCUMENTATION)





RECEIVED
MAR 1 2 2007

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

March 5, 2007 Project No.: E2111-03

MAR 0 9 2007

BY:

Re:

Remediation System Operation and Maintenance Data Package, ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California (Field activities performed on January 2, 17, 29, 30, and 31, 2007)

#### **General Information**

Data Submittal Prepared / Reviewed by: Sandy Hayes and Kiran Nagaraju / Jay Johnson

Phone Number: (530) 676-6007 / (530) 676-6000

On-Site Supplier Representatives: Chris Hill and Kiran Nagaraju

System Overview: Dual Phase Extraction System, Air Stripper, and Groundwater Extraction and Treatment System

Operational Status: Continuous operation.

Scope of Work Performed: Conduct system start-up operations, routine operation and maintenance, and record field measurements. Influent, mid-fluent, and effluent air and water samples (see Figure 1) were collected at the system start-up on January 29, 2007. In addition, in accordance with the Bay Area Air Quality Management District (BAAQMD) permit requirements, influent water samples to the air-stripper were collected on January 30, 2007 and January 31, 2007.

Variations from Work Scope: In accordance with BAAQMD permit requirements, daily site visits were conducted between January 29, 2007 and February 2, 2007 to measure and record the petroleum hydrocarbon concentrations in the effluent air. On February 1, 2007, Stratus requested BAAQMD to reduce the monitoring frequency from a daily basis to a bi-monthly basis, which was subsequently approved on the same day by Robert Cave at the BAAOMD.

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

Sincerely,

STRATUS ENVIRONMENTAL, INC.

<u>Kiran</u> Nagaraju Staff Engineer

#### Attachments:

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

CC: Paul Supple, BP/ARCO

#### 1156 Davis Street

## San Leandro, California Dual Phase Extraction and Air Stripper System



Onsite Time: Offsite Time:	0945		- -	Technician Weather C Ambient Te	•	CHILL Clem 50	
Equipment Ma	inufacturer/Mo	del#	Cher	k je	Sek	if systa	n tend gtm
		Sys	tem Inform		<del></del> -		7 Sustan
System Status	Upon Arrival:		Operation	al 🗌	Non-Operation	onal 🗵	System 34ill
System Status	Upon Departi	ure:	Operation	al 🔲	Non-Operation	onal 💆	Not ,
Electric Meter	Reading:			Chart F	Recorder	Yes	operating
Hour Meter Re	eading:	****		Paper I	Replaced	No	Right
Natural Gas M	leter Reading:			PID Calibra	ation Date:		Not operating Right When St Button f
Totalizer Read Unit:	ling on DPE			Oxidizer Te	emperature:		But when
		P=1 1	i Measurer				Button I
	_	Influent (after	Air	System Influent	Stack Air		Pull Back System Back-up.
Parar	meter	blower)	Stripper	(before oxidizer)	Flow	Comments	Back Up.
Parar Differential Pre			Stripper	•	1	Comments	Back Up.
	essure, "wc		Stripper	•	1	Comments	Back Up.
Differential Pre	essure, "wc PM		Stripper	•	1	Comments	Back Up.
Differential Pre	essure, "wc PM r, inches		Stripper	•	1	Comments	Back Up.
Differential Pre Air Velocity, FI Pipe Diameter	essure, "wc PM r, inches cfm		Stripper	•	1	Comments	Back Up.
Differential Pre Air Velocity, FI Pipe Diameter Air Flow Rate,	essure, "wc PM r, inches cfm um, "wc		Stripper	oxidizer)	Flow	Comments	- - -
Differential Pre Air Velocity, FI Pipe Diameter Air Flow Rate, Applied Vacuu	essure, "wc PM , inches cfm im, "wc deg F		Stripper	oxidizer)	Flow	Comments	
Differential Pro Air Velocity, FI Pipe Diameter Air Flow Rate, Applied Vacuu Temperature,	essure, "wc PM , inches cfm im, "wc deg F	blower)		oxidizer)  NA	Flow NA	Comments	
Differential Pre Air Velocity, FI Pipe Diameter Air Flow Rate, Applied Vacuu Temperature, PID Readings,	essure, "wc PM r, inches cfm um, "wc deg F , ppmv	blower) Other Rea	ndings/Mea	oxidizer)  NA  surements	NA	Comments	
Differential Pro Air Velocity, FI Pipe Diameter Air Flow Rate, Applied Vacuu Temperature,	essure, "wc PM , inches cfm im, "wc deg F	blower)		oxidizer)  NA	Flow NA	Comments	
Differential Pre Air Velocity, FI Pipe Diameter Air Flow Rate, Applied Vacuu Temperature, PID Readings,	essure, "wc PM r, inches cfm um, "wc deg F , ppmv	blower) Other Rea	ndings/Mea	oxidizer)  NA  surements	NA	Comments	- - -
Differential Pre Air Velocity, FI Pipe Diameter Air Flow Rate, Applied Vacuu Temperature, PID Readings,	essure, "wc PM r, inches cfm um, "wc deg F , ppmv	blower) Other Rea	ndings/Mea	oxidizer)  NA  surements	NA	Comments	
Differential Pre Air Velocity, FI Pipe Diameter Air Flow Rate, Applied Vacuu Temperature, PID Readings,	essure, "wc PM r, inches cfm um, "wc deg F , ppmv	blower) Other Rea	ndings/Mea	oxidizer)  NA  surements	NA	Comments	

## 1156 Davis Street

# San Leandro, California Dual Phase Extraction and Air Stripper System



Onsite Time: 09	90			n: Conditions: Temperature:	CHILL Cold 40
	Sys	tem Inforn	nation		
System Status Upon A	rrival:	Operation	nal	Non-Operat	ional 🔀
System Status Upon D	eparture:	Operation	nal 🔲	Non-Operat	
Electric Meter Reading			- Chart	Recorder /// Replaced	Yes
Hour Meter Reading:	0001	5.U	-	поріасси	7,140
Natural Gas Meter Rea	ading: N 6	f	PID Calibra	ation Date:	
Totalizer Reading on D Unit: 肖いらかか	PE <u>0004</u>	180	Oxidizo Ci	v by your emperature:	<u> N'IA</u>
2014 2000	16 Carbon	5			
	Field	l Measurer	nents		
Parameter	Influent (after blower)	Air Stripper	System Influent (before oxidizer)	Stack Air Flow	Comments
Differential Pressure, "	wc				
Air Velocity, FPM					
Pipe Diameter, inches	4	Ч	NA	3"	
Air Flow Rate, cfm					
Applied Vacuum, "wc			NA	NA	
Temperature, deg F					
PID Readings, ppmv					
W-415 A =			surements		
Well ID % Op	en PID	Well ID	% Open	PID	
					ľ
	11/1				
Signature:			Date:	1-17-0	ッフ

Page 1 of 2

#### 1156 Davis Street

## San Leandro, California



## **Dual Phase Extraction and Air Stripper System**

	Sampling Information	(monthly)	
Sample ID	Date & Time	Sample ID	Date & Time
02111AINF			
02111ASTP			
02111AEFF		· A	
Analyses Required: GRO, I	BTEX, and MTBE		

,- Operation & Maintenance Notes
Operation & Maintenance Notes
Install (Cornerstone) Reset Switch on Emeny.
Shut Down - KNOW Emergy Switch shits Down
Install (Cornerstone) Reset Switch on Emerge Shut Down - Revew Emerge Switch shots Down System But in: 11 Not Restart when Pulled Buck out-Need To Push Reset Button -
OUT-NEED TO Push Reset Button-

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	INF, ASTP, & EFF	EPA Method 8015
BTEX	Monthly	INF, ASTP, & EFF	EPA Method 8260B
МТВЕ	Monthly	INF, ASTP, & EFF	EPA Method 8260B
	1		

Signature:

Date: 1-17-07

#### 1156 Davis Street

#### San Leandro, California **Groundwater Treatment System**

OF ORK	
--------	--

Date: / - / 7 ( Onsite Time: クラクタ Offsite Time: 1000	<u> </u>	Technician: Weather Conditions: Ambient Temperature	CHILL	
System Status Upon Arrival:	Operation	al Non-operation	onal $S_{4.5}$	tem
System Status At Departure:	Operation	al Non-operati	onal ( Reserve	tem ly To Stan
LEL Sensor 1/14	Active	Inactive	(1 - 0	
LEL Sensor Calibration Date:	NA			
Transfer Pump:	Operational	Non-operation	onal	
Transfer Pump Hour Meter Re			ater Characteristics y Field Instrument)	,
Discharge Flow Totalizer Read	ding: <u>00003</u>	pH:		***
No. of Carbon Vessels:	<u>Z</u> 2000	7165 Temperature	e:	
Lead Carbon Vessel Pressure (psi): Aiハ STrはアドレ				
	Sampling Infor	mation		
Sample ID	Date & Time	Sample ID	Date & Time	
02111WINF				
02111WGAC1				
02111WGAC2				
02111WEFF				
			·	
Lab Parameters	Sampling Frequency	Sample Location	Analytical Method	
GRO, BTEX, & 5-Oxys	Monthly	INF& EFF	EPA Method 8260B	
TTO ???	Quarterly	EFF	EPA Method 624/625	
Signature:		Date:	フ・クフ	
MW-EZ -	TP PYW - 15.02	sheen Bri	11644	
Agum Pire AP80 Replace Cart. AP	02 18002 810-2, APSII	22.7880 1.2, AP814-2	, AP815, Z	
Oil Ligard King	,		MS Hand HAT	No smoke

## 1156 Davis Street

#### San Leandro, California **Dual Phase Extraction and Air Stripper System**



1/29/07 Date: Technician: Onsite Time: Weather Conditions: Cold clear 1200 hrs Offsite Time: \$ 60° € Ambient Temperature: Equipment Manufacturer/Model# System Information System Status Upon Arrival: Operational Non-Operational System Status Upon Departure:  $\times$ Operational Non-Operational Start-up @ 0800 hrs Electric Meter Reading: 13.6 Hour Meter Reading: 1/26/07 Totalizer Reading Prior to NA

PID Calibration Date:

							<del></del>	
			Field Meas	urements		····		
Para	meter	influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comr	nents	
Differential Pr	essure, "wc							
Air Velocity, F	РМ	1305	1996					
Pipe Diamete	r, inches	3	4	4	3			
Air Flow Rate	, cfm			198				
Applied Vacuu	ım, "wc	21" Hg	22" WC	NA	NA			
Temperature,	deg F	160	102	106.5	58			
PID Readings	ID Readings, ppmv		151	47	Φ	PID for GAC	-1:84ppmv	
<del></del>		Oth	er Readings/	Measurements				
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs	Dept to Water, feeting	Well dia:"		
V-1	114	6	18.9	18	15.55	4	<del></del>	
V-2		12	19	8.5	15.06	4		
V-3		15	19.3	19	14.76	4		
MW-1		15	26	25.5	17.0	4	<del>-</del>	
MW-3	\	18	26.2	25.7	16.18	4		
MW-7		18	26	26	15.35	4-		
MM-8	1	5	39	25.4	15.82	2_		

4300

Signature:

Air Stripper:

Stripper:

Totalizer Reading After Air

#### 1156 Davis Street San Leandro, California



## Dual Phase Extraction and Air Stripper System

	Date & Time	Sample ID	Date & Time		
)2111DPEAINF	1129/07 0915	02111AGAC1	1/29/07 0910		
02111ASAEFF	1/29/07 0917	02111AEFF	129/07 0900		
02111ASYSINF	1/29/07 09/3		10 (1-)		

	···	Operation P	Mai-lana - 11 i	-	
14169	\ 7 L	Operation &	Maintenance Notes		
MW-8 -	7 Juli	ail tho	V		
		V			
	· · · · · · · · · · · · · · · · · · ·				

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
МТВЕ	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B

Signature:	Kina Nagaraj	Date: 1 19 07
------------	--------------	---------------

# 1156 Davis Street San Leandro, California



		Gro		Treatment				
Date: Onsite Time: Offsite Time:	1/29/07 0615 1200		- -	Technician: Weather Conditions: Ambient Temperature			Kiran Clent	<b>-</b> 
System Status System Status			Operation		Non-operatio		f-up @ C	- 18 oobna
Transfer Pump	•	X X	Operation:	<u> </u>	Non-operation			
	Hour Meter Re	3000 U	NA pon ant @ depe	ivat ihure	(Quarterly b	ater Characto y Field Instrur	ment)	
		g:	2,00		pH:		7.80	-
No. of Carbon			2,00	- (167	Temperature	):	14.8	_
Lead Carbon V (psi):	essel Pressure	Ψ		-				
Well ID	Hour Meter	Reading	Totalize	r Reading	Total Depth	Pump Depth	DTWesta	tup
MW-2	NA			42 prior	1 to startn	Þ	15.12	1
			180	0 00	epathwe			]
<u> </u>		····			<u> </u>			_
		Sam	pling Infor	mation	<del></del>			
Samp	ole ID	Date 8	Date & Time		nple ID	Date & Ti	me	
02111DPEWIN	F	1/20/07 0920		02111MW2WINF		1/29/07 /	015	
02111ASWINF			0925					
02111ASWEFF			0940		•	·		
02111WGAC1		_/	1000					
02111WEFF		<u> </u>	0915					
7. M								
Lab Para	ameters	Sampling I	requency	Sample	Location	Analytical Me	ethod	
GRO, BTEX	(, & 5-Oxys	Mon	thly	INF	& EFF	EPA Method 8	260B	
		7						
Notes: Mw- at par for the	·2 About c rel· Need Submerkble	lown ( to pure	D de evalm	parture. Je gla	Not a	re-Aething controlled		
Signature: _	Kiran Y	lagurin		Date:	1/29/	07	minus (	

Signature:

Date:



Site Address: Davy 5 City SHW Lindus Sampled By Kinn CHILL

Site Number: Avo 21()

Site Number: Avo 21()

Project No. E 21()

Date Sampled 1, 24, 07

Site Contact Phone No.

	Waler L	evel Data	<del></del>		1	Purae Vo	lume Calci	deliene	<del></del>	<del>-</del>	·	<u>-</u>	~			_	1,270
	, <u> </u>	<u> </u>	·	Total	Casing	r dige vo				<u> </u>	Well	urge N	Method	Sa	imple Red	cord	Fleld
Well ID	Time	Depth to water feet	Top of Screen feet	Depth of Well feet	Waler Column (A)	Well Diameter		Three Casing Volumes		No				DTW At Sample	Sample	Sample	Data Dissolved
Mw-7-	0650	15-12		1001		(inches)	1. (B)	(gallons)	(gallons)	Purge	Bailer	Pump	Other	Tlme	1.D.	Time	(mg/L)
MW E8		15.8Z	, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	39	,		en o. th	25,	7	E1.	+0	7					
MW-3		16,118		26,20	11	الماران		25.7				_					
MW 7 V-3					5%,,	· .	Ength	19"		1			History				
V-3		14.76		19.3	J/14	14 4	*&10g 1 t4	17		i fee	446	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	olus				
Mw7		15.35		16		Left	57ig	led to deer	par p	014	- Ac	role.	c 8606	5			
<u>v.Z</u>		15.06		19		1.	siti	v1914.18	15	$c\nu$	L Acu	rlx.	- Hole	.5			, <u> </u>
V-1	1181	15.55		184		Hil		1 yed er			- Kle		NUL				
murl		17.0		16		4	Stiv	1,4	25.5	Cut	Hust	<u>.                                    </u>	Hele.				
									-								
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												` .					



#### 1156 Davis Street

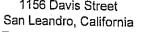
#### San Leandro, California



## Dual Phase Extraction and Air Stripper System

Date:	1/30/07	۲		Technician;		Chil	İ	
Onsite Time:	0445		•	Weather Cond	itione:	Clea		
Offsite Time:	0600		•	Ambient Temp		40		
Equipment Ma	anufacturer/Mo	odel#	-	· ····································	orataro,			
<del>"</del>		***	System Inf	ormation				
System Status	s Upon Arrival:	:	Operational	X	Non-Operati	ional		
System Status	s Upon Depart	ure:	Operational	X	Non-Operati	ional [	7	
Electric Meter	Reading:	106.	3		·	<b>.</b>	<b>-</b>	
Hour Meter Re	eading:	33.	8					
Totalizer Read Air Stripper:	ding Prior to	NA		· PID Calibration -	Date:	1/26/07		
Totalizer Read Stripper:	ling After Air	67.	30					
			Field Measi	irements		·		
Parameter		Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Con	omments	
Differential Pro	essure. "wc			(500)	(ZTTT)	<u> </u>		
	r Velocity, FPM		2209				<u> </u>	
Pipe Diameter		3	4	4	ی			
Air Flow Rate,			· · · · · · · · · · · · · · · · · · ·	200				
Applied Vacuu		21		NA	NA			
Temperature,	deg F	151	98	70	56			
PID Readings,		67	7	23	ф	PID for GA	C-1: 3.ppmV	
				Measurements				
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs	!			
V-1	14	4						
V-2	14	15						
V-3	1   4	14						
MW-1	100	16,						
MW-3	1/4	15	-					
MW-7	74	1/8	11			****		
MM-E	114 /	10/						
	-		11		,			

#### ARCO FACILITY NO. 2111 1156 Davis Street





## Dual Phase Extraction and Air Stripper System

Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF		02111AGAC1	13017 0508
02111ASAEFF		02111AEFF	1,54,7,050
02111ASYSINF			
Analyses Required: GRO, B	TEX, and MTBE		

Operation 2 Maint
Operation & Maintenance Notes

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	1		
	1/2/		

Date: 1. 3007 Signature:

#### 1156 Davis Street San Leandro, California Groundwater Treatment System



Date: I 30 07 Onsite Time: Offsite Time:	130/07		Technician Weather C Ambient Te		Chil Clear 40	1
System Status Upon Arrival:	X	Operationa	al	Non-operatio	n-operational	
System Status At Departure:	X	Operationa	al	Non-operatio	nal	
Transfer Pump:	X	Operationa	al 🔲	Non-operatio	nal	
Transfer Pump Hour Meter Re	ading:	NA		Ŀ	ater Charact	
Effluent Flow Totalizer Reading	g: <u> </u>	6200 (Quarterly by Fig.		y Field Instrur	ment)	
No. of Carbon Vessels:		2	_	Temperature	:	
Lead Carbon Vessel Pressure (psi):		φ	•			
Well ID Hour Meter I	Reading	Totalize	r Reading	Total Depth	Pump Depth	
MW-2 NA		18	00	Pump.	off	
	·					
		<u> </u>				
	Sam	pling Infor	mation	***		
Sample ID	Date &	& Time	San	nple ID	Date & Ti	me
02111DPEWINF			02111MW2	WINF		
02111ASWINF	1300	7 0515				
02111ASWEFF						·
02111WGAC1						
02111WEFF	····					
Lab Parameters	Sampling	Frequency	Sample	Location	Analytical Me	ethod
GRO, BTEX, & 5-Oxys	GRO, BTEX, & 5-Oxys Mon		thly INF& EFF		EPA Method 8260B	
Notes:	1					

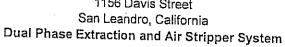
#### 1156 Davis Street San Leandro, California



## Dual Phase Extraction and Air Stripper System

Date: 1 31 07  Onsite Time: 0530  Offsite Time: 0900  Equipment Manufacturer/Model#				Technician: Weather Condi Ambient Tempe		2 4.	ivdy
			System Inf	ormation			
System Status	s Upon Arrival:		Operational	$\sum$	Non-Operati	onal [	
System Status	s Upon Depart	ure:	Operational		Non-Operati	onal	
Electric Meter	Reading:	163	0	<del></del>			
Hour Meter R	eading:	60	.3	•			
Totalizer Read Air Stripper:	ding Prior to	NA		PID Calibration Date: 131 ア		· · · · · · · · · · · · · · · · · · ·	
Totalizer Read Stripper:	ding After Air	908	30				
			Field Meas	urements			
Para	meter	influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Co	mments
Differential Pr	essure, "wc						<u>-</u> -
Air Velocity, F	PM	1004	2179				
Pipe Diamete	r, inches	-3	4	4	3		
Air Flow Rate	, cfm			210	,,,,		
Applied Vacuu	ım, "wc	Z2"Hg		NA	NA		
Temperature,		159	105	100	8.3		
PID Readings		110	76	79-5	Ø	PID for G	AC-1: IppmV
		Off	er Readings/	 Measurements			
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs			
V-1		5		<u> </u>		<u> </u>	
V~I		14					
V-1							
		15		į l		1	
V-2		15			····		
V-2 V-3							
V-2 V-3 MW-1		16					

## 1156 Davis Street





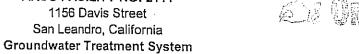
	Sampling Info	ormation (monthly)	<del></del>
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF		02111AGAC1	
02111ASAEFF		02111AEFF	
02111ASYSINF			
Analyses Required: GRO, B	 TEX, and MTBE		
	Operation & N	Maintenance Notes	<u> </u>
**			
			<del></del>
	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASASINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	110,		

Signature:

1/3/17 Date:

## San Leandro, California



-2"	*.0
2000 00	Bamenaurran
63 13	ORGINAL.
7	- Car at the transplaced a

Date: Onsite Time: Offsite Time:	1/31/7 0530 0900		- - -		n: Conditions: emperature	Chill Cloud 45	ly	
System Status System Status	At Departure:		Operations Operations	al	Non-operatio	nal		
Transfer Pump	: Hour Meter Re	<u> X </u> ading:	Operation:	al <u>L</u>	Non-operation	nal ater Characte	eristics	
Effluent Flow T	otalizer Readin	g: <u> </u>	8560 (Quarterly by I pH:			y Field Instrument)		
No. of Carbon	Vessels:					;		
Lead Carbon V (psi):	essel Pressure		0	-				
Well ID	Hour Meter I	Reading	Totalize	r Reading	Total Depth	Pump Depth		
MW-2	NI	}	18	00	271	25'	off	
				-				
			<u> </u>					
			pling Infor	mation		******	**	
Samı	ole ID	Date &	& Time	Sa	mple ID	Date & Ti	me	
02111DPEWIN		lad o		02111MW	2WINF			
02111ASWINF		1/31/07	0745					
02111ASWEF								
02111WGAC1					<u> </u>			
02111WEFF								
Lab Par	ameters	Sampling	Frequency	Samp	le Location	Analytical Me	ethod	
GRO, BTE	X, & 5-Oxys	Моі	nthly	IN	F& EFF	EPA Method 8260B		
Notes:			7					
Signature:	Mr.			Date	:	131/7		

1156 Davis Street

San Leandro, California

Dual Phase Extraction and Air Stripper System

ARREMAN
ORGINAL

Date: Onsite Time Offsite Time Equipment M			- Auomet PID	Technician: Weather Con Ambient Tem		CHICL Cloud 45
			System In	formation		
System Stati	us Upon Arrival	: •	Operational	区	Non-Operat	tional
System Stati	us Upon Depart	ture:	Operational		Non-Operat	ional
Electric Mete	er Reading:	016	•		тыл орога	illonal
Hour Meter F	Reading:	60.	3	<u>.</u>		
Totalizer Rea Unit:	ading on DPE	NI	4	PID Calibration	n Date:	.31.07
Effluent Wate Reading:	er Totalizer	8560		Totalizer Read Air Stripper:	ing on 9	080
			Field Meas	urements		
Para	ameter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments
Differential Pr	ressure, "wc				(= : : : : : : : : : : : : : : : : : : :	
Air Velocity, F	PM	1004/1590	2179/105		5715/83	
Pipe Diamete	r, inches	٠٠,	4		3	
Air Flow Rate	, cfm			210		
Applied Vacu	um, "wee	22"46		NA NA	NA	
Pressure, psi		J.	8	8	6	
Temperature,	deg F	159	105	100	83	
PID Readings	, ppmv	1(0	76	79.5	8	G4C+-1.0
		Oth	er Readings/N	Measurements		
Well ID	% Open	PID		Stinger Depth, feet bgs	VAL	
V-1		HZO			5"46	
V-2					14"46	
<u>V-3</u>					15"46	
MW-1		/			16"H6	
MW-3		7)			14146	
MW-7	,	/// - #			18"HG	
mu 8		/ <u> </u>			82	

2727

Page 1 of 2

#### 1156 Davis Street San Leandro, California

## San Leandro, California Groundwater Treatment System



Date: Onsite Time: Offsite Time: System Status	1-31-0 0530 0900 Upon Arrival:	<b>フ</b> 図	- - Operation	Ambient T	n: Conditions: emperature Non-operatio	CHIL Cloubs 45	<u> </u>
System Status	At Departure:	内	Operation	al [	Non-operation		
Transfer Pump	o: 🖒	Operation	•		Non-operation		
Transfer Pump	Hour Meter Re		NA	<del></del>	1	ater Charact	
Discharge Flov	w Totalizer Rea	ding:	8560	<del></del>	pH:	y Field Instrui	ment)
No. of Carbon	Vessels:	<u></u>	<u>3</u>		Temperature	::	
Lead Carbon \ (psi):	essel Pressure	9	, ,	•			
Well ID	Hour Meter	Reading	Totalize	r Reading	Total Depth	Pump Depth	
MW-2	NA		1800	7	271	25"	
MW-8							
	*						
		Sam	pling Infor	mation			
Samı	ple ID	Date 8			nple ID	Date & Ti	me
02111DPEWIN	IF			02111MW2	WINF		
02111ASWINF		1-3107	0147				
02111ASWEFF	-	1-2-27	好物				
02111WGAC1							
02111WEFF							
Lab Par	Parameters Sampling Fr		requency	Sample Location		Analytical Me	ethod
GRO, BTE	GRO, BTEX, & 5-Oxys Mont		thly	INF	& EFF	EPA Method 8	260B
Notes:							
		14	16				
Signature:		M	1	Date:	1-31	07	

Page 1 of 1

#### 1156 Davis Street

#### San Leandro, California



### Dual Phase Extraction and Air Stripper System

02111DPEAINF	· · · · · · · · · · · · · · · · · · ·	
	02111AGAC1	
02111ASAEFF	02111AEFF	
02111ASYSINF		

Operation & Maintenance Notes
MW-Z 25' BHOM PUMP 3"Grundos 27' DTB
15.20 DTW
STANT SENGAN 12" From Jop Punp STOP 11 6" From Jop Punp 3RD SUNSAN 8" From Jop Punp
3Rd Sunsur 8" From Top Punp
Air stupper Pump 15 GPM Cycling
Cut 48" off Stinger for MW-1 To Make It suck HZE

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
МТВЕ	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	191		

Signature:

Date: 1-3/07



**Chain of Custody Record** 

Project Name:

ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

See commants

On-site Time:	0615	Temp:	100000 5 hs F
Off-site Time:	1200	Temp:	70°F
Sky Conditions:	Cleai		
Meteorological Ev	ents:		
Wind Speed:		Direction	n:

Luv	Nume. Testamenta					_ _	BPIAR Facility No	).:	211	L								i i	Cons	ıltant/	Contr	ractor:		Stratus Environment	al, Inc.	
Address: 885 Jarvis Drive BP/AR Facility Address: 1156 Davis Street, Street SAN LEANDILO A												Address: 3330 Cameron Park Drive, Suite 550														
Mor	gan Hill, CA 95937		Site Lat/Long: Cameron Park											·· · · · · · · · · · · · · · · · · · ·												
	PM: Lisa Race		California Global l	California Global ID No.: T0600101764 Consultant/Contractor Project No.:											***											
	/Fax: 408-782-8156 408-782-630	)8 (fax)					Enfos Project No.:	Enfos Project No.: G0C28 - 002.3 Consultant/Contractor I											···	···						
BP/	AR PM Contact: Paul Supple						Provision or OOC (circle one) (Provision) Tele/Fax: (530) 676-												6-60	6000 / (530) 676-6005						
Addı	ress: 2010 Crow Canyon Place, Suit	le 150	·														Report Type & QC Level: Level 1 with EDF									
	San Ramon, CA		Sub Phase/Task: 03-Analytical E-mail EDD To: cjewit												stratusinc.net											
	/Fax: 925-275-3506			<del></del> :		<u> </u>	Cost Element:		01-Cont	racto	r labo	Γ							Invoi	e to:	Atlan	tic Ric	hfiel	i Co.		
_ab	Bottle Order No:	1		1	Matri	x	<u> </u>			Pro	serv:	tive					R	equeste	d An	lysis						
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid		Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO3	HCI	Methanol		GRO	BIEX	- CAY Bellines							Sample Point Comm		and
1	02111DPEWAINF	0120	1/29/07		х		u)						$\Box$		x i		(				T				WATER	
2	02111ASWINF	0925	1/29/07		х		ピン								х	x :		T						Please analyze	amples	
3	02111ASWEFF	payo	1/29/07		х	$\top$	ט")			1	$\Box$				x :	x			+	_	╁	1		02111ASWINF and		
	02111WGAC1		1/29/07		x		64			1			$\dashv$	-						+	-	+-		a 24-hour TAT. Fi requested are MTB		
5	02111WEFF	2100	1/29/07		x		0(			1				1	x :	x   ;			$\top$			1		ETBE, and TAME.		<i>D</i> 11 <i>D</i> ,
6	02111MW2WINF	tols	1/29/07		х		04								x :	x ;					<u> </u>					į
7																					1					
8																										
9																"				-						
10																					1			····		
amp	pler's Name: KIKAN NA	HALAS	J				ı/Reli	nquis	lyed By//	Lffilia	tion			╗	Date	+	Time				Acc	nted R	v / A f	filiation	Date	Time
апц	pier's Company: STLATUS E			, ja	ic.		منام		Nagmo					==	29 =	===				N		νW			1/29/07	
hipi	ment Date:						-		Ü	,				┰	1	╢-		<del>-</del>			MM	A. 140	<u>~I.</u>		HeriaH	19.3
	ment Method:																									
	ment Tracking No:	=																								
`eci	al Instructions:	Please c	c results	to m	iller(	@bro	oadbentine.com												/							
٦	Cuntoda Soula I - Di	V and Kr	<del>)</del>			1																				
	Custody Seals In Place:	ICS/NO	/   J	emp	Blar	ıĸ: Y	es/No / Co	oler	Temp or	ı Rec	eint:	1.5	/F° د	C	1	Trip	Blank:	Yes / A	いっく	1 1	MS/I	MSD S	Samr	le Submitted: Ves	(No.)	

BP COC Rev. 5 10/11/2006

# Atlantic Richfield Company

#### Chain of Custody Record

Project Name: ARCO 2111
BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

Sec Comments

		0
On-site Time:	0615	Temp: ≈ 65° F
Off-site Time:	1200	Temp: ピロット
Sky Conditions:	Clear	
Meteorological E	vents:	
Wind Speed:		Direction:

						<b></b>	1								2.					11					Chapter Engironmental	Inc	[	
	Name: TestAmerica		BP/AR Facility No.: 2111  BP/AR Facility Address: 1156 Davis Street, Sagrage April LEANDED										Consultant/Contractor: Stratus Environmental, Inc.  Address: 3330 Cameron Park Drive, Suite 550															
Addr	ess: 885 Jarvis Drive	╢┈	BP/AR Facility Add	ress:		1156	Dav	ıs Str	eet, q	acra	(OCH)	215F	IN L	LANDLU	Aggi	CSS.					k, CA 95682							
Morg	an Hill, CA 95937					_	Site Lnt/Long:													14-					k, CA 93082 t No.:			
Lab I	PM: Lisa Race						California Global II	No.	:		0010		<u> </u>										tor Pi		Jay Johnson		<b></b>	
Tele/	Fax: 408-782-8156 408-782-630	8 (fax)					Enfos Project No.:			GOC		_	02.	3					-									
BP/A	R PM Contact: Paul Supple						Provision or OOC (	circle	e one)			Provi	ision						1	Fax:					00 / (530) 676-6005	EDE		
Addr	ess: 2010 Crow Canyon Place, Suite	c 150					Phase/WBS:		03-0 &	M									Repo	ort Ty	/pe &	: QC	Leve	l;	Level 1 wit	LEDF		
	San Ramon, CA						Sub Phase/Task:		03-Analy	ytical															stratusinc.net			
Tele/	Fax: 925-275-3506						Cost Element:		01-Cont					<u>-</u>					Invo			antic	Rich	iticio	1 Co.			
Lab	Bottle Order No:				Matri	x		\ \		Pres	erva	tive		_				Request	ed Al	ialys	15	<u>-</u> -						
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid		H\$AIO\$5	No. of Containage	Unpreserved	H ₂ SO ₂	HNO3	нсі	Methanol		GRO	втех	мтве								Sample Point L Comme		nd	
1	02111DPEAINF	0920	1/29/07		x		61								х	х	×		$\Box$									
2	02111ASAEFF	0925	1/29/07	!!	x		v								x	x	х								Please analyze air sa 02111ASYSINF and		ÆFF.	
3	02111ASYSINF .	Dado	1/29/07		x		رسي ا							_	х	х	х					_			on a 24-hour TAT k also			
4	02111AGAC1 -	(000	1/29/07		x		64							_	x	x	х					_			02111AGACI			
5	02111AEFF -	wis	1/29/07		x	L.	ot								х	х	x									-		
6																								_				
7																						_		_				
8										<u> </u>						_								-				
9										<u> </u>									-					_				
10		<u> </u>	J			<u> </u>				<u></u>	<u> </u>						[									Date	Time	
Sam	pler's Name: KIKAN	N.	ALALI	<b>1</b> J	J				hed By /		tion				Da			Time	<u> </u>						Miliation	1/29/07		
Sam	pler's Company: STRATUS		/)RONIV	LEP	JIAIL		Vican	W	rgang	ν.			<del></del>	_	1/2	113	<u> 13</u>	54-	╢		4	10	$N_{V}$		\	15664	/3:3	
Ship	ment Date:								<i>v</i>																			
	ment Method:		•																╢—									
Ship	ment Tracking No:	=					<u> </u>		<del></del>		•	<del></del>			<u> </u>				<u> </u>				-			<u> </u>	<u> </u>	
Spec	ial Instructions:	Please	cc result	s to	rmille	r@bi	roadbentinc.com																					
١,,			Α		n:		<del>(, , (, \)</del>		Tomas	D -	- noie '		<u>ō</u> τ	2/0	<u>-</u>	т.	rin 13	Nank: Vec	710	<u></u>	<del>)                                    </del>	AS/N	/SD	San	pole Submitted: Yes	(No)		
200	Custody Seals In Place: Yes / No   Temp Blank: Yes / No   Cooler Temp on Receipt: F/C   Trip Blank: Yes / No   MS/MSD Sample Submitted: Yes / No												<b>'/</b> U	, 110	يلي		AUI I		~ ·	<u> </u>								

# Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record
Project Name: Ava 2111

BP BU/AR Region/Enfos Segment:

State or Lead Regulatory Agency:

BP Americus West Reta

Requested Due Date (mm/dd/yy):

	Pageof
On-site Time: 0445	Temp:
Off-site Time: () (000) Sky Conditions:	Temp:
Meteorological Events:	
Wind Speed:	Direction:

	<del></del>	<del>/</del>	wina apeeu.	Direction:				
Lab Name: 7657 America	BP/AR Facility No.: 2///							
Address: 884 Tunus Doing	DD/AR Facility No.: 2		Consultant/Contractor: Hunfis					
Movey Hill CH 94974	BP/AR Facility Address: 156 Davi	5 St SAAT LE and	anddress: 3330 Canvine Pho DD					
Lab PM: LISH RULE.	Sile Lai/Long:		Consultant/Contractor: Hunter 5  Address: 3330 Cameren Pto DR  Cameren Pto Cot 95682					
Address: 884 Tunus DEINE Mongue HILL CH 95937  Lab PM: Line Ruce Tele/Fax: 4087828156			Consultant/Contractor Projection	ect No.: FZU/				
BP/AR EBM: PWW   SUDINE	BEDDE Propertion / - A A A A		Consultant/Contractor PM:	SAY				
Address: 2/91/0 Canal Calaries Divertile	Provision or OOC (circle one)		Tele/Fax: 530 676	lowirt				
Address: 2010 Crow Canyon Plane #140	Phase/WBS: D3-D/M		Report Type & QC Level:	I - EDF				
Tele/Fax: 924 274 3506	1 - 1 D D D D D D D D D D D D D D D D D		E-mail EDD To: C. T.	att @ Strutes Inc. Net				
I als Battle Out N	Cost Element: 01		Invoice to: Consultant or B	P of Atlantic Richfield Co (circle one)				
Lab Bothe Order No: Matrix	Preservativ	Req	uested Analysis	(chele the)				
	ll lets			1				
Soil/Solid Date Soil/Solid Air	Laboratory No. O							
No. Sample Description Time Date  Water/Liquiti	No. of Conta Unpreserved H ₂ SO ₄ HCl	回ってえる		Sample Point Lat/Long and				
nir ater	No. of Unpres H ₂ SO ₄ HNO ₃	GED BACK MT 131		Comments				
1 2 2 11 0 0 0 0 1	No. HHZ	ONE						
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Sampler's Name: Chvi3 HIII	Relinquished By / Affiliation	Date Time						
Sampler's Company: 3+vutu5	State State	1300/100(	Accepted By / A					
Shipment Date: 1-30-07	30000	7 1700	f h	1/30/07 1001				
Shipment Method: Strutes								
Shipment Tracking No:		<del>    </del>						
Special Instructions: CC 1690145 Kmille	in a proud bouting, com	<u></u>						
	TO THE WORLD INC TOWN	<u>4</u>						
Custody Seals In Place: Yes / No Temp Blank: Yes / N	o   Cooler Temp on Receipt:	F/C   Trip Blank:	Yes/No I MS/MST	) Sample Submitted: Ver / No				

# Atlantic Richfield ompany

A BP affiliated company

### **Chain of Custody Record**

Project Name: ARCO 2111

BP BU/AR Region/Enfos Segment:

State or Lead Regulatory Agency:

BP > Americas > West > Retail > Alameda > 2111 RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

i Origin	AL	Page
.lameda > 2111	On-site Time: 0520 Off-site Time: 0900 Sky Conditions: C.	Temp: 45
£ 714+	Meteorological Events: Wind Speed:	Direction:

Lab Name: TestAmerica  BP/AR Facility No.: 2111  Address: 885 Jarvis Drive  Consultant/Contractor: Stratus F														Direction	<del></del>										
Add	ress: 885 Jarvis Drive					1 -1												Co	nsultar	nt/Con	traci	or:	Stratus Environmen	atal I	
Mor	gan Hill, CA 95937						/AR Facility A	ddres	s:	11	56 Da	vis St	reet, S	San Lea	andro				iress:				eron Park Drive, Su	to EEO	
	PM: Lisa Race		<del></del>				e Lat/Long:		<del></del>												lami	eron F	Park, CA 95682	.16 330	
	/Fax: 408-782-8156 408-782-63	08 (fax)	<del></del>				ifornia Global		D.:			01764						Cor	sultan	ıt/Coni	tract	or Pro	ject No.:		
BP/	AR PM Contact: Paul Supple	00 (14A)			<del> </del>		os Project No.			G	C28-	0023										or PM:			
	ress: 2010 Crow Canyon Place, Sui	to 150				11	vision or OOC	(circ	le one)			Prov	ision					_1/	/Fax:				6000 / (530) 676-60		<del> </del>
	San Ramon, CA	130				—	se/WBS:		03-0 &				_			_		-{}		ре & (	2 <u>207</u>	evel·		with EDF	
Tele	Fax: 925-275-3506						Phase/Task;		03-Ana														t@stratusinc.net	vim EDF	
	Bottle Order No:			i ;	Matrix	Cos	t Element:		01-Con	tracto	r labo	г						Invo	ice to:	Atla	ntic.i	Richfi	eld Co.		
	l l	_#				Рге	serva	tive					Reques					domi	1						
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid Air	La	boratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO,	HCI	Methanol	GRO 132K	5000	,	•						Sample Point Com		; and
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																							RP COC Paul		

# Atlantic Richfield

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菴	A BP affiliated company						Requested Due I	Date	(mm/dd	/yy):	:	_5	Hm	di	ml	71	141	Wi	ind Sp	eed:				Direction	:	
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	Name: TestAmerica			<del></del>		_	BP/AR Facility No		211	1								Co	nsulta	int/C	ontra	ctor:	_	Stratus Environmenta	al, Inc.	
	ress: 885 Jarvis Drive					-  -	BP/AR Facility Ad	idress	s:	115	66 Da	vis S	Street,	, San	Lean	ıdro	:	Ad	ldress:	:	333	0 Ca	ımer	on Park Drive, Suite	e 550	
	gan Hill, CA 95937					<b> </b>  _	Site Lat/Long:											-  -						rk, CA 95682		
	PM: Lisa Race					<u> </u>	California Global II		).:		60010													ct No.:		
	Fax: 408-782-8156 408-782-6308	8 (fax)			<del></del>	╬	Enfos Project No.:			G0(	C28-(							I	nsulta					Jay Johns		
	AR PM Contact: Paul Supple		<del></del>			<u> </u> -'	Provision or OOC					Pro	visior	1					e/Fax:					000 / (530) 676-600		
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tem No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid Air		Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HINO,	HCI	Methanol		<b>GRO</b> BX	50245	,							Sample Point I Comm	_	and
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ecia	al Instructions:	Please c	cc results	s to rm	ailler(/	a)bro	oadbentine.com																			
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12 February, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQA1045

Enclosed are the results of analyses for samples received by the laboratory on 01/29/07 13:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race

Senior Project Manager

CA ELAP Certificate # 1210

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





Stratus Environmental Inc. [Arco]	Project:	ARCO #2111, San Leandro, CA	MQA1045
3330 Cameron Park Dr., Suite 550	Project Number:	G0C28-0023	Reported:
Cameron Park CA, 95682	Project Manager:	Jay Johnson	02/12/07 14:41

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEAINF	MQA1045-01	Vapor	01/29/07 09:20	01/29/07 13:35
02111ASAEFF	MQA1045-02	Vapor	01/29/07 09:25	01/29/07 13:35
02111ASYSINF	MQA1045-03	Vapor	01/29/07 09:40	01/29/07 13:35
02111AGAC1	MQA1045-04	Vapor	01/29/07 10:00	01/29/07 13:35
02111AEFF	MQA1045-05	Vapor	01/29/07 10:15	01/29/07 13:35

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1045 Reported: 02/12/07 14:41

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111DPEAINF (MQA1045-01) Vapor		<del></del>				- rrepure	7 thai y 2.c a	Memon	Note
	Sampled: 01/2						MIN.		7***********
Gasoline Range Organics (C4-C12)	340		mg/m³ Air	10	7A31011	01/31/07	01/31/07 18:12	EPA 8015B/8021B	
Benzene	9.7	1.0	"	U	н	14	14	11	P
Toluene	ND	1.0	н	U	н	"	If	и	
Ethylbenzene	ND	1.0	u	ij	И	10	И	н	
Xylenes (total)	ND	2.0	(I	0	н	10	И	11	
Methyl tert-butyl ether	58	5.0		U	11	n	It .	H	
Surrogate: a,a,a-Trifluorotoluene		91%	65-1	40	"	"	"	tr	
Surrogate: 4-Bromofluorobenzene		104%	70-1	25	11	n	#	Tr .	
Gasoline Range Organics (C4-C12)	98	24	ppmv	10	п	14	16	14	
Benzene	3.1	0.31	0	0	"		If	н	P
Toluene	ND	0.27	D	ш	н	16	lf .	N	
Ethylbenzene	ND	0.23	0	U	)I	It	И	н	
Xylenes (total)	ND	0.47	U	11	н	If	И	ħ	
Methyl tert-butyl ether	16	1.4	и	U	н	И	11	н	
Surrogate: a,a,a-Trifluorotoluene		91%	65-1	40	11	"	rt	11	
Surrogate: 4-Bromofluorobenzene		104%	70-1	25	11	II .	rr .	u	
02111ASAEFF (MQA1045-02) Vapor	Sampled: 01/29	0/07 09:25	Received:	01/29/07	13:35				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7A31011	01/31/07	01/31/07 16:39	EPA 8015B/8021B	
Benzene	0.19	0.10	н	н	17	U	u	II .	
Toluene	ND	0.10	11	#1	**	0	U	ıı	
Ethylbenzene	0.10	0.10	Ħ	Ħ	if	0	U	If	
Xylenes (total)	ND	0.20	Ħ	Ħ	ŧŧ	u	u	н	
Methyl tert-butyl ether	5.1	0.50	Ħ	*1	17	U	Ħ	U	
Surrogate: a,a,a-Trifluorotoluene		100 %	65-1	40	"	n	n	n	
Surrogate: 4-Bromofluorobenzene		100 %	70-1	25	н	n	11	n	
Gasoline Range Organics (C4-C12)	ND	2,4	ppmv	*1	14	ų	α	n	
Benzene	0.060	0.031	4	*1	17	u	a	п	
Toluene	ND	0.027	a	ţi.	I†	0	0	0	
Ethylbenzene	0.024	0.023	tl	H	n	q	**	ij	
Xylenes (total)	ND	0.047	a	+1	n	0	**	U	
Methyl tert-butyl ether	1.4	0.14	"	n	n	n	11	Œ	
Surrogate: a,a,a-Trifluorotoluene		99 %	65-1	40	'n	11	II.	11	
Surrogate: 4-Bromofluorobenzene		99 %	70-1	25	n	11	n	п	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1045 Reported: 02/12/07 14:41

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111ASYSINF (MQA1045-03) Vapor	Sampled: 01/29	9/07 09-40	Received	01/29/07	13.35				
Gasoline Range Organics (C4-C12)	77		mg/m³ Air	5	7A31011	01/31/07	01/31/07	EPA	•
Gasbine Range Organics (C4-C12)	,,	50	mgm An	J	7431011	01/31/07	10:55	8015B/8021B	
Benzene	ND	0.50	Iŧ	14	h	ŧ	Ħ	ti ti	
Toluene	ND	0.50	Ħ	ıŧ	11	**	н	a	
Ethylbenzene	ND	0.50	H	14	н	n	71	*1	
Xylenes (total)	ND	1.0	je	Iŧ	н	41	ti	11	
Methyl tert-butyl ether	9.4	2.5	19	14	N	11	ti	ti ti	
Surrogate: a,a,a-Trifluorotoluene		92 %	65-	140	ır	и	ır	11	
Surrogate: 4-Bromofluorobenzene		93 %	70-	125	ır	11	n	"	
Gasoline Range Organics (C4-C12)	22	12	ppmv	5	#1	α	ţi.	a	
Benzene	ND	0.16	Iŧ.	R	н	а	a	п	
Toluene	ND	0.13	R	н	"	**	ti ti	ď	
Ethylbenzene	ND	0.12	H	R	*1	et e	п	11	
Xylenes (total)	ND	0.24	R	It	11	п	u	Ħ	
Methyl tert-butyl ether	2.6	0.69	it	и	#	u	ti	U	
Surrogate: a,a,a-Trifluorotoluene		92 %	65-	140	11	л	11	н	
Surrogate: 4-Bromofluorobenzene		93 %	70-	125	lt .	#	n	n	
02111AGAC1 (MQA1045-04) Vapor S	Sampled: 01/29/0	)7 10:00 F	Received: 0	1/29/07 13	3:35				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7A31011	01/31/07	01/31/07 10:26	EPA 8015B/8021B	
Benzene	ND	0.10	**	н	0	O O	0	tı	
Toluene	ND	0.10	#1	н	**	**	Ħ	**	
Ethylbenzene	ND	0.10	#	и	n	a	Ħ	н	
Xylenes (total)	ND	0.20	Ħ	ч	н	et	#1	и	
Methyl tert-butyl ether	ND	0.50	н	ч	н	#1	#1	н	
Surrogate: a,a,a-Trifluorotoluene		102 %	65-	140	n	"	r	n	
Surrogate: 4-Bromofluorobenzene		105 %	70-	125	"	11	11	ir	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	If	It	И	н	н	
Benzene	ND	0.031		17	It	)t	н	н	
Toluene	ND	0.027	l+	11	14	R	н	н	
Ethylbenzene	ND	0.023	n	ti	11	R	R	и	
Xylenes (total)	ND	0.047	H	u .	ŧŧ	H	IF	и	
Methyl tert-butyl ether	ND	0.14	U	a	II.	II.	10	и	
Surrogate: a,a,a-Trifluorotoluene		101 %	65-	140	p	**	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	70-			"	"	rr	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1045 Reported: 02/12/07 14:41

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111AEFF (MQA1045-05) Vapor	Sampled: 01/29/07	10:15 Re	ceived: 01/2	29/07 13:	35				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7A31011	01/31/07	01/31/07 11:40	EPA 8015B/8021B	
Benzene	ND	0.10	ц	ti.	ii.	11	H	0	
Toluene	ND	0.10	и	U	**	#1	t)	II .	
Ethylbenzene	ND	0.10	и	0	**	**	19	II .	
Xylenes (total)	ND	0.20	И	0	Ħ	н	H	Ú	
Methyl tert-butyl ether	ND	0.50	)ı	0	Ħ	**	P	IJ	
Surrogate: a,a,a-Trifluorotoluene		96 %	65-1	40	n	11	"	"	
Surrogate: 4-Bromofluorobenzene		96 %	70-1	25	11	п	"	H	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	n	(1	H	Iŧ	Ŋ	
Benzene	ND	0.031	+1	0	(1	**	It	ŋ	
Toluene	ND	0.027	И	II .	ď	"	Iŧ	U	
Ethylbenzene	ND	0.023	11	0	ti	**	ÞŤ	0	
Xylenes (total)	ND	0.047	н	0	ti	**	If	n	
Methyl tert-butyl ether	ND	0.14	11	0	*1	**	lt .	н	
Surrogate: a,a,a-Trifluorotoluene		96 %	65-1	40	11	n	"	"	
Surrogate: 4-Bromofluorobenzene		96 %	70-1	25	n	rt	n	1f	





Project: ARCO #2111, San Leandro, CA

MQA1045
Reported:

Project Number: G0C28-0023 Project Manager: Jay Johnson

02/12/07 14:41

# Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

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

nk (7A31011-BLK1)			I	repared & Ar	nalyzed: 01/31/0	07	
oline Range Organics (C4-C12)	ND	50	mg/m³ Air	•			
oline Range Organics (C4-C12)	ND	12	ppmv				
ene	ND	0.50	mg/m³ Air				
ene	ND	0.16	ppmv				
ene	ND	0.50	mg/m³ Air				
ene	ND	0.13	ppmv				
benzene	ND	0.50	mg/m³ Air				
benzene	ND	0.12	ppmv				
nes (total)	ND	1.0	mg/m³ Air				
es (total)	ND	0.24	ppmv				
I tert-butyl ether	ND	2.5	mg/m³ Air				
l tert-butyl ether	ND	0.69	ppmv				
ate: a,a,a-Trifluorotoluene	39,4	***************************************	mg/m³ Air	40.0	98	65-140	
ate: a,a,a-Trifluorotoluene	6.60		ppniv	6.70	99	65-140	
ate: 4-Bromofluorobenzene	40.2		mg/m³ Air	40.0	100	70-125	
ite: 4-Bromofluorobenzene	5.63		ppmv	5.59	101	70-125	
atory Control Sample (7A31011-	BS1)		Ī	repared & Ar	nalyzed: 01/31/0	07	
ne Range Organics (C4-C12)	240	50	mg/m³ Air	275	87	70-115	
ne Range Organics (C4-C12)	68.2	12	ppmv	78.0	87	70-115	
e	4.74	0.50	mg/m³ Air	4.85	98	80-150	
:	1.49	0.16	ppmv	1.52	98	80-150	
2	21.6	0.50	mg/m³ Air	23.5	92	75-125	
e	5.73	0.13	ppmv	6.25	92	75-125	
penzen <b>e</b>	4.04	0.50	mg/m³ Air	4.70	86	75-135	
enzene	0.933	0.12	ppmv	1.08	86	75-135	
es (total)	25.2	1.0	mg/m³ Air	26.5	95	75-135	
es (total)	5.81	0.24	ppmv	6.12	95	75-135	
l tert-butyl ether	4.84	2.5	mg/m³ Air	6.50	74	60-140	
tert-butyl ether	1.35	0.69	ppmv	1.81	75	60-140	
gate: a,a,a-Trifluorotoluene	47.7		mg/m³ Air	40.0	119	65-140	
gate: a,a,a-Trifluorotoluene	7.99		ppmv	6.70	119	65-140	
gate: 4-Bromofluorobenzene	40.9		mg/m³ Air	40.0	102	70-125	
gate: 4-Bromofluorobenzene	5.72		ppmy	5.59	102	70-125	





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Project: ARCO #2111, San Leandro, CA

MQA1045 Project Number: G0C28-0023 Reported: Project Manager: Jay Johnson 02/12/07 14:41

Cameron Park CA, 95682

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

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

Laboratory Control Sample Dup (7A3	1011-BSD1)		Prepared & An	alyzed: 01/31/	07		
Gasoline Range Organics (C4-C12)	237	50 mg/	m³ Air 275	86	70-115	1	35
Gasoline Range Organics (C4-C12)	67.3	12 рј	omv 78.0	86	70-115	1	35
Benzene	4.45	0.50 mg/s	m³ Air 4.85	92	80-150	6	35
Benzene	1.40	0.16 pj	omv 1.52	92	80-150	6	35
Toluene	5.60	0.13	6.25	90	75-125	2	30
Toluene	21.1	0.50 mg/s	m³ Air 23.5	90	75-125	2	30
Ethylbenzene	3.90	0.50	4.70	83	75-135	4	30
Ethylbenzene	0.900	0.12 pp	omv 1.08	83	75-135	4	30
Xylenes (total)	24.5	1.0 mg/s	m ¹ Air 26.5	92	75-135	3	30
Xylenes (total)	5.65	0.24 pp	emv 6.12	92	75-135	3	30
Methyl tert-butyl ether	4.81	2.5 mg/s	m ¹ Air 6.50	74	60-140	0.6	30
Methyl tert-butyl ether	1.34	0.69 pp	nnv 1.81	74	60-140	0.7	30
Surrogate: a,a,a-Trifluorotoluene	46.7	mg/	m³ Air 40.0	117	65-140	~~~~~~	***************************************
Surragate: a,a,a-Trifluorotaluene	7.82	pį	omv 6.70	117	65-140		
Surrogate: 4-Bromofluorobenzene	41.3	mg/	m³ Air 40.0	103	70-125		
Surrogate: 4-Bromofluorobenzene	5.77	pį	omv 5.59	103	70-125		





Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 MQA1045 Reported: 02/12/07 14:41

Project Manager: Jay Johnson

#### Notes and Definitions

PI Primary and confirm results varied by > than 40% RPD

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	٠
Atlantic Richfiel	d
Compan	y

A BP affiliated company

### Chain of Custody Record

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Proi	ert	No	me	٠		

ARCO 2111

BP > Americas > West > Retail > Alameda > 2111

0615 Temp: ≈ 65°F On-site Time: 1200 Temp: #70°F Off-site Time: Clean Sky Conditions:

BP BU/AR Region/Enfos Segment: State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

See Comments

Meteorological Events: Wind Speed: Direction:

	Name: TestAmerica					L	BP/AR Facility No.: 2111							·	Consultant/Contractor: Stratus Environmental, Inc.													
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Mor	gan Hill, CA 95937	···				L	Site Lat/Long:								٠. ٠	<i>'</i>						Car	nero	n Pa	rk, CA 95687	2		
_	PM: Lisa Race					L	California Global II	No.	:		50010								Con	sulta	nt/Co	ontra	ctor I	roje	ct No.:			
Tele/	Fax: 408-782-8156 408-782-630	8 (fax)				<u> </u>	Enfos Project No.:			GO	C28 ·	<u>- C</u>	02	.3					Con	sulta	nt/Co	ntra	ctor I	M:	Ja	y Johnso	n	
	R PM Contact: Paul Supple						Provision or OOC	circi	e one)			Prov	ision						Tele	/Fax:	:	(53	0) 67	76-6	000 / (530) 6	76-600:	<u> </u>	
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Tele/Fax: 925-275-3506						<u> </u>	Cost Element:		01-Cont	_==									<u> </u>			tianti	io Ric	hfiel	ld Co.			
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A BP affiliated company

### **Chain of Custody Record**

Project Name: ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy): Sec Comments

On-site Time: 0.615 Temp: 2.65° F

Off-site Time: 1200 Temp: 200° F

Sky Conditions: C[ewl

Meteorological Events:

Wind Speed: Direction:

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### TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: REC. BY (PRINT) WORKORDER:	REC. BY (PRINT)			ME REC'D AT LAB: 1/29/07- ME REC'D AT LAB: 1/3:35  ATE LOGGED IN: 1-29-07				For Regulatory Purposes?  DRINKING WATER YES (NO WASTE WATER YES / NO WATER YES / NO WASTE WATER YES / NO WASTE WATER YES / NO WASTE WATER YES / NO WASTE WATER YES / NO WASTE WATER YES / NO WASTE WATER YES / NO WASTE WATER YES / NO WASTE WATER YES / NO WASTE WATER YES / NO WASTE WATER WATER YES / NO WASTE WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WA					
CIRCLE THE APPR	OPRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION	PRESER VATIVE	рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)				
1. Custody Seal(s)	Present / Absent								7				
	Intact / Broken*												
2. Chain-of-Custody	Present / Absent*		· · · · · · · · · · · · · · · · · · ·										
3. Traffic Reports or			·				-						
Packing List:	Present (Absept				-								
4. Airbill:	Airbill / Sticker						<del> </del>						
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SRL Revision 8 Ses Rev 7 (07/19/05) Page _____ of ____



13 February, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQA1043

Enclosed are the results of analyses for samples received by the laboratory on 01/29/07 13:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race

Senior Project Manager

CA ELAP Certificate # 1210

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





Stratus Environmental Inc. [Arco]	Project: ARCO #2111, San Leandro, CA	MQA1043
3330 Cameron Park Dr., Suite 550	Project Number: G0C28-0023	Reported:
Cameron Park CA, 95682	Project Manager: Jay Johnson	02/13/07 13:19

#### ANALYTICAL REPORT FOR SAMPLES

Sample 1D	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEWINF	MQA1043-01	Water	01/29/07 09:20	01/29/07 13:35
02111ASWINF	MQA1043-02	Water	01/29/07 09:25	01/29/07 13:35
02111ASWEFF	MQA1043-03	Water	01/29/07 09:40	01/29/07 13:35
02111WGAC1	MQA1043-04	Water	01/29/07 10:00	01/29/07 13:35
02111WEFF	MQA1043-05	Water	01/29/07 09:15	01/29/07 13:35
02111MW2WINF	MQA1043-06	Water	01/29/07 10:15	01/29/07 13:35

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111DPEWINF (MQA1043-01) Water	Sampled: 01/2	9/07 09:20	Received	: 01/29/0	7 13:35				
Gasoline Range Organics (C4-C12)	480	250	ug/l	5	7B06022	02/06/07	02/07/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-1	45	n	"	n	11	
02111ASWINF (MQA1043-02) Water	Sampled: 01/29	/07 09:25 F	Received: (	01/29/07	13:35				
Gasoline Range Organics (C4-C12)	2000	1200	ug/l	25	7A30003	01/30/07	01/30/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		96 %	60-1-	45	n	"	11	"	
02111ASWEFF (MQA1043-03) Water	Sampled: 01/29	/07 09:40 1	Received:	01/29/07	13:35				
Gasoline Range Organics (C4-C12)	92	50	ug/l	ı	7B03008	02/03/07	02/03/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-1	45	n	"	II.	n	
02111WGAC1 (MQA1043-04) Water S	Sampled: 01/29/	07 10:00 R	eceived: 0	1/29/07 1	3:35			*	
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7B03008	02/03/07	02/03/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		96 %	60-1	45	n	μ	n	11	
02111WEFF (MQA1043-05) Water Sa	mpled: 01/29/07	09:15 Rec	cived: 01/	29/07 13:	:35				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7A30003	01/30/07	01/30/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		104 %	60-1	45	n	11	"	1)	
02111MW2WINF (MQA1043-06) Water	Sampled: 01/	29/07 10:15	Receive	d: 01/29/6	07 13:35				
Gasoline Range Organics (C4-C12)	930	500	ug/l	10	7B03008	02/03/07	02/03/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		92 %	60-1	45	n	"	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111DPEWINF (MQA1043-01) Water	Sampled: 01/2	29/07 09:20	Receive	Received: 01/29/07 13:35					
tert-Amyl methyl ether	ND	5.0	ug/l	10	7B03008	02/03/07	02/03/07	EPA 8260B	
Benzene	ND	5.0	0	Ð	н	U	н	0	
tert-Butyl alcohol	4600	200	(1	0	11	u	И	v	
Di-isopropyl ether	ND	5.0	U	ŧi	11	u	и	U	
Ethyl tert-butyl ether	ND	5.0	0	ti	Ħ	II .	и	U	
Ethylbenzene	ND	5.0	0	Ð	Ħ	U	H	0	
Methyl tert-butyl ether	720	5.0	U	tt	11	u	H	U	
Toluene	ND	5.0	0	ŧi	н	U	H	0	
Xylenes (total)	ND	5.0	0	U	11	U	II .		
Surrogate: 1,2-Dichloroethane-d4		90 %	60-	145	II	21	rr	"	
Surrogate: 4-Bromofluorobenzene		75 %	60-	120	H	n	11	<i>n</i>	
Surrogate: Dibromofluoromethane		96 %	75-	130	u	u	n	rt	
Surrogate: Toluene-d8		86 %	70-	130	II	u	rf	u	
02111ASWINF (MQA1043-02) Water	Sampled: 01/29	/07 09:25 1	Received:	01/29/07	13:35				
tert-Amyl methyl ether	ND	12	ug/l	25	7A30003	01/30/07	01/30/07	EPA 8260B	
Веплепе	35	12	It	н	n n	H	**	н	
tert-Butyl alcohol	1800	500	и	и	n	и	Ħ	н	
Di-isopropyl ether	ND	12	И	II	n	jŧ.	n	н	
Ethyl tert-butyl ether	ND	12	И	н	U	н	n	п	
Ethylbenzene	23	12	и	и	P	н	Ħ	п	
Methyl tert-butyl ether	1300	12	и	)1	17	п	U	п	
Toluene	ND	12	11	н	0	н	n	н	
Xylenes (total)	14	12	*1	11	It	"	ţ1	н	
Surrogate: 1,2-Dichloroethane-d4		96 %	60-	145	"	н	"	rr	
Surrogate: 4-Bromofluorobenzene		89 %	60-	120	"	"	IJ	"	
Surrogate: Dibromofluoromethane		96 %	75-	130	n	n	n	u	
Surrogate: Toluene-d8		102 %	7 <i>0</i> -	130	"	n	μ	u	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWEFF (MQA1043-03) Water	Sampled: 01/29	/07 09:40	Received: 0	1/29/07	13:35				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7B03008	02/03/07	02/03/07	EPA 8260B	**
Benzene	ND	0.50	H	*1	41	*1	II	II .	
tert-Butyl alcohol	1900	20	0	ti	Ü	#1	И	II .	
Di-isopropyl ether	ND	0.50	U	u	et e	*1	II	II .	
Ethyl tert-butyl ether	ND	0.50	U	u	n	a	II	ıi	
Ethylbenzene	ND	0.50	U	ŧį	U	11	И	U	
Methyl tert-butyl ether	150	0.50	ų.	a a	ri .	†I	и	0	
Toluene	ND	0.50	U	"	ď	**	и	0	
Xylenes (total)	ND	0.50	<u>u</u>			*1	11	1)	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-14	5	n	n	tr.	Ħ	
Surrogate: 4-Bromofluorobenzene		82 %	60-12	0	n	11	11	"	
Surrogate: Dibromofluoromethane		92 %	75-13	0	n	n	11	#	
Surrogate: Toluene-d8		92 %	70-13	0	n	n	11	#	
02111WGAC1 (MQA1043-04) Water	Sampled: 01/29/	07 10:00	Received: 01	/29/07 1	3:35				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7B03008	02/03/07	02/03/07	EPA 8260B	
Benzene	ND	0.50	lt	I†	D	U	11	II .	
tert-Butyl alcohol	ND	20	H	lf	0	0	н	0	
Di-isopropyl ether	ND	0.50	н	H	6	0	H	ū	
Ethyl tert-butyl ether	ND	0.50	И	н	0	0	h	0	
Ethylbenzene	ND	0.50	Iŧ	17	0	U	11	U	
Methyl tert-butyl ether	ND	0.50	R	0	0	U	н	U	
Toluene	ND	0.50	19	n	O	**	H	a	
Xylenes (total)	ND	0.50	I <del>†</del>	U	o	н	Jt	H	,,,
Surrogate: 1,2-Dichloroethane-d4		96 %	60-14	5	"	"	"	n	
Surrogate: 4-Bromofluorobenzene		73 %	60-12	0	11	ır	**	If	
Surrogate: Dibromofluoromethane		93 %	75-13	0	11	n	rr rr	n	
Surrogate: Toluene-d8		88 %	70-13	0	It	и	"	н	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111WEFF (MQA1043-05) Water San	npled: 01/29/07	09:15 Rec	eived: 01/2	29/07 13:	35				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7A30003	01/30/07	01/30/07	EPA 8260B	
Benzene	ND	0.50	If		u	II .	Ħ	U	
tert-Butyl alcohol	ND	20	и	11	"	1)	ti	II.	
Di-isopropyl ether	ND	0.50	II .	U	0	0	ŧ	P .	
Ethyl tert-butyl ether	ND	0.50	II .	19	0	14	u	n	
Ethylbenzene	ND	0.50	н	I+	0	11	U	H	
Methyl tert-butyl ether	ND	0.50	н	14	0	"	u	H	
Toluene	ND	0.50	*1	14	17	14	u	It	
Xylenes (total)	ND	0.50	*1	H	I†	H	u	It .	
Surrogate: 1,2-Dichloroethane-d4		104 %	60-14	45	п	"	n	rr	
Surrogate: 4-Bromofluorobenzene		95 %	60-12	20	"	"	"	u	
Surrogate: Dibromofluoromethane		108 %	75-13	30	n	n	"	"	
Surrogate: Toluene-d8		106 %	70-13	30	н	н	"	"	
02111MW2WINF (MQA1043-06) Water	Sampled: 01.	/29/07 10:15	Received	I: 01/29/0	7 13:35				
tert-Amyl methyl ether	ND	5.0	ug/l	10	7B03008	02/03/07	02/03/07	EPA 8260B	
Benzene	41	5.0	11	1+	D	11	#	0	
tert-Butyl alcohol	1500	200	н	19	U	U	H	n	
Di-isopropyl ether	ND	5.0	"	14	U	Ħ	*1	ч	
Ethyl tert-butyl ether	ND	5.0	п	17	U	II .	Ħ	a	
Ethylbenzene	27	5.0	n .	н	U	U	11	* u	
Methyl tert-butyl ether	1300	5.0	н	17	n	D	11	o o	
Toluene	ND	5.0	II .	U	U	U	н	u	
Xylenes (total)	10	5.0	h	н	0	0	h	0	
Surrogate: 1,2-Dichloroethane-d4		92 %	60-1-	<i>45</i>	"	"	**	n	
Surrogate: 4-Bromofluorobenzene		74 %	60-12	20	n	"	17	11	
Surrogate: Dibromofluoromethane		91 %	75-13	30	n	n	II .	n	
Surrogate: Toluene-d8		88 %	70-13	30	"	**	п	u	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7A30003 - EPA 5030B P/T / L	UFT GCMS									
Blank (7A30003-BLK1)				Prepared o	& Analyze	ed: 01/30/0	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l	-			<del>*</del>			
Surrogate: 1,2-Dichloroethane-d4	2.40		п	2.50		96	60-145			
Laboratory Control Sample (7A30003-B	S2)			Prepared o	& Analyze	ed: 01/30/0	07			
Gasoline Range Organics (C4-C12)	494	50	ug/l	500		99	75-140			······································
Swrogate: 1,2-Dichloroethane-d4	2,33		"	2.50		93	60-145			
Laboratory Control Sample Dup (7A300	03-BSD2)			Prepared 6	& Analyze	ed: 01/30/0	07			
Gasoline Range Organics (C4-C12)	522	50	ug/l	500	·	104	75-140	6	20	
Surrogate: 1,2-Dichloroethane-d4	2.43		*	2.50		97	60-145			
Batch 7B03008 - EPA 5030B P/T / L	UFT GCMS									
Blank (7B03008-BLK1)				Prepared a	& Analyze	ed: 02/03/0	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.34		"	2.50		94	60-145			
Laboratory Control Sample (7B03008-B	S2)			Prepared a	& Analyzo	ed: 02/03/0	07			
Gasoline Range Organics (C4-C12)	528	50	ug/l	500		106	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.42		ii .	2.50		97	60-145			***************************************
Laboratory Control Sample Dup (7B030	08-BSD2)			Prepared &	& Analyze	ed: 02/03/0	07			
Gasoline Range Organics (C4-C12)	501	50	ug/l	500		100	75-140	5	20	
Surrogate: 1,2-Dichloroethane-d4	2.31		H	2.50		92	60-145			
Batch 7B06022 - EPA 5030B P/T / L	UFT GCMS									
Blank (7B06022-BLK1)				Prepared:	02/06/07	Analyzed	: 02/07/07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l				, <del></del> ,,,,			
Surrogate: 1,2-Dichloroethane-d4	2,42		"	2.50		97	60-145			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

### 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 7B06022 - EPA 5030B P/T / L	UFT GCMS									
Laboratory Control Sample (7B06022-B	S1)			Prepared	& Analyz	ed: 02/06/	07			
Gasoline Range Organics (C4-C12)	545	50	ug/l	500		109	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.39		ıt	2.50		96	60-145			
Matrix Spike (7B06022-MS1)	Source: M	QA1023-02		Prepared:	02/06/07	Analyzed	1: 02/07/07			
Gasoline Range Organics (C4-C12)	1230	50	ug/l	500	780	90	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.41		If	2.50		96	60-145			
Matrix Spike Dup (7B06022-MSD1)	Source: M	QA1023-02		Prepared:	02/06/07	Analyzed	: 02/07/07			
Gasoline Range Organics (C4-C12)	1280	50	ug/l	500	780	100	75-140	4	20	
Surrogate: 1,2-Dichloroethane-d4	2.60		11	2,50		104	60-145	***************************************		



Analyte

Toluene

Xylenes (total)

Surrogate: 1,2-Dichloroethane-d4

Surrogate: 4-Bromofluorobenzene

Surrogate: Dibromofluoromethane

Surrogate: Toluene-d8

Project: ARCO #2111, San Leandro, CA

Spike

Level

10.0

30.0

2.50

2.50

2.50

2.50

Source

Result

%REC

Limits

RPD

%REC

95

100

92

97

97

99

70-120

80-125

60-145

60-120

75-130

70-130

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

Notes

RPD

Limit

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

Units

Reporting

Result

9.46

30.1

2.30

2.43

2.42

2.47

0.50

0.50

Limit

Blank (7A30003-BLK1)				Prepared & An	alyzed: 01/30/	07
ert-Amyl methyl ether	DД	0.50	ug/l			
Benzene	ND	0.50	11			
ert-Butyl alcohol	ND	20	U			
Di-isopropyl ether	ND	0.50	a			
thyl tert-butyl ether	ND	0.50	II.			
thylbenzene	ND	0.50	17			
Aethyl tert-butyl ether	ND	0.50	If			
oluene	ND	0.50	It			
ylenes (total)	ND	0.50	н			
rogate: 1,2-Dichloroethane-d4	2.40		II.	2.50	96	60-145
rrogate: 4-Bromofluorobenzene	2.13		"	2.50	85	60-120
rrogate: Dibromofluoromethane	2.40		11	2.50	96	75-130
rogate: Toluene-d8	2.44		ır	2.50	98	70-130
boratory Control Sample (7A30003-BS1)				Prepared & An	alyzed: 01/30/	07
rt-Amyl methyl ether	8.35	0.50	ug/l	10.0	84	65-135
enzene	9.07	0.50	н	10.0	91	70-125
rt-Butyl alcohol	190	20	ji	200	95	60-135
-isopropyl ether	8.76	0.50	н	10.0	88	70-130
yl tert-butyl ether	8.45	0.50	н	10.0	84	65-130
ylbenzene	9.76	0.50	Ħ	10.0	98	70-130
thyl tert-butyl ether	7.83	0.50	)ı	10.0	78	50-140





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

### 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
Datab 74 20002 ED 4 5020D	B/T / FB & 92/AB									<del></del>

Matrix Spike (7A30003-MS1)	Source: MQ	A0680-07		Prepared a	& Analyze	ed: 01/30/	/07			
tert-Amyl methyl ether	10.4	0,50	ug/l	10.0	ND	104	65-135			
Benzene	9,96	0.50	"	10.0	ND	100	70-125			
tert-Butyl alcohol	181	20	1)	200	ND	90	60-135			
Di-isopropyl ether	9.67	0.50	0	10.0	ND	97	70-130			
Ethyl tert-butyl ether	9.98	0.50	н	10.0	ND	100	65-130			
Ethylbenzene	9.70	0.50	11	10.0	ND	97	70-130			
Methyl tert-butyl ether	9.04	0.50	R	10.0	ND	90	50-140			
Toluene	11.2	0.50	н	10.0	ND	112	70-120			
Xylenes (total)	29.4	0.50	R	30.0	ND	98	80-125			
Surrogate: 1,2-Dichloroethane-d4	2.44		rr	2,50		98	60-145			
Surrogate: 4-Bromofluorobenzene	2.67		rt	2,50		107	60-120			
Surrogate: Dibromofluoromethane	2.65		"	2,50		106	75-130			
Surrogate: Toluene-d8	2.77		tr	2.50		111	70-130			
Matrix Spike Dup (7A30003-MSD1)	Source: MQ	A0680-07		Prepared a	& Analyze	ed: 01/30/	/07			
tert-Amyl methyl ether	10.9	0.50	ug/l	10.0	ND	109	65-135	5	25	
Benzene	10.1	0.50	н	10.0	ND	101	70-125	1	15	
tert-Butyl alcohol	176	20	н	200	ND	88	60-135	3	35	
Di-isopropyl ether	10.0	0.50	н	10.0	ND	100	70-130	3	35	
Ethyl tert-butyl ether	10.3	0.50	н	10.0	ND	103	65-130	3	35	
Ethylbenzene	9.67	0.50	#1	10.0	ND	97	70-130	0.3	15	
Methyl tert-butyl ether	9.66	0.50	11	10.0	ND	97	50-140	7	25	
Toluene	11.4	0.50	"	10.0	ND	114	70-120	2	15	
Xylenes (total)	30.3	0.50	ti	30.0	ND	101	80-125	3	15	
Surrogate: 1,2-Dichloroethane-d4	2.49		"	2,50		100	60-145			
Surrogate: 4-Bromofluorobenzene	2.79		**	2.50		112	60-120			
Surrogate: Dibromofluoromethane	2.80		н	2.50		112	75-130			
Surrogate: Toluene-d8	2.70		11	2.50		108	70-130			





Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

RPD

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7B03008 - EPA 5030B P/T /	EPA 8260B									
Blank (7B03008-BLK1)	Prepared & Analyzed: 02/03/07									
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	•							
tert-Butyl alcohol	ND	20	17							
Di-isopropyl ether	ND	0.50	rt .							
Ethyl tert-butyl ether	ND	0.50	Iŧ							
Ethylbenzene	ND	0.50	If							
Methyl tert-butyl ether	ND	0.50	и							
Toluene	ND	0.50	и							
Xylenes (total)	ND	0.50	н							
Surrogate: 1,2-Dichloroethane-d4	2.34		11	2.50		94	60-145		······	
Surrogate: 4-Bromofluorobenzene	2.01		rr ·	2.50		80	60-120			
Surrogate: Dibromofluoromethane	2.19		"	2.50		88	75-130			
Surrogate: Toluene-d8	2.25		u	2.50		90	70-130			
Laboratory Control Sample (7B03008	-BS1)			Prepared a	& Analyze	ed: 02/03/0	07			
tert-Amyl methyl ether	7.91	0.50	ug/l	10.0	,	79	65-135			
Вепzепе	8.18	0.50	*1	0.01		82	70-125			
tert-Butyl alcohol	190	20	11	200		95	60-135			
Di-isopropyl ether	9.35	0.50	**	10.0		94	70-130			
Ethyl tert-butyl ether	8.73	0.50	ø	10.0		87	65-130			
Ethylbenzene	8.64	0.50	ų	10.0		86	70-130			
Methyl tert-butyl ether	8.04	0.50	0	10.0		80	50-140			
Toluene	8.35	0.50	**	10.0		84	70-120			
Xylenes (total)	27.8	0.50	e	30.0		93	80-125			
Surrogate: 1,2-Dichloroethane-d4	2.40		"	2.50		96	60-145			
Surrogate: 4-Bromofluorobenzene	2.39		"	2.50		96	60-120			
Surrogate: Dibromofluoromethane	2.41		#	2.50		96	75-130			
Surrogate: Toluene-d8	2.33		**	2.50		93	70-130			





Project: ARCO #2111, San Leandro, CA

Spike

Source

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1043 Reported: 02/13/07 13:19

RPD

%REC

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7B03008 - EPA 5030B P/Γ / E	CPA 8260B									
Matrix Spike (7B03008-MS1)	Source: MQA1024-04			Prepared	& Analyze					
tert-Amyl methyl ether	8.21	0.50	ug/l	10,0	ND	82	65-135		· ·	
Benzene	7.86	0.50	*	10.0	ND	79	70-125			
tert-Butyl alcohol	216	20	If	200	ND	108	60-135			
Di-isopropyl ether	9.41	0.50	Iŧ	10.0	ND	94	70-130			
Ethyl tert-butyl ether	8.76	0.50	19	10.0	ND	88	65-130			
Ethylbenzene	8.99	0.50	10	10.0	ND	90	70-130			
Methyl tert-butyl ether	8.00	0.50	Iŧ	10.0	ND	80	50-140			
Toluene Toluene	8.57	0.50	l#	10.0	ND	86	70-120			
Kylenes (total)	29.5	0.50	#	30.0	ND	98	80-125			
Surrogate: 1,2-Dichloroethane-d4	2.38	***************************************	Ħ	2.50		95	60-145			
Surrogate: 4-Bromofluorobenzene	2.31		**	2.50		92	60-120			
Surrogate: Dibromofluoromethane	2.40		"	2.50		96	75-130			
Surrogate: Toluene-d8	2.29		н	2,50		92	70-130			
Matrix Spike Dup (7B03008-MSD1)	Source: M(	QA1024-04		Prepared	& Analyze	ed: 02/03/	07			
ert-Amyl methyl ether	8.48	0.50	ug/l	10.0	ND	85	65-135	3	25	
Benzene	7.89	0.50	п	10.0	ND	79	70-125	0.4	15	
ert-Butyl alcohol	217	20	n	200	ND	108	60-135	0.5	35	
Di-isopropyl ether	9.67	0.50	IJ	10.0	ND	97	70-130	3	35	
Ethyl tert-butyl ether	8.99	0.50	u	10.0	ND	90	65-130	3	35	
Ethylbenzene	9.00	0.50	ŋ	10.0	ND	90	70-130	0.1	15	
Methyl tert-butyl ether	8.30	0.50	u	10.0	ND	83	50-140	4	. 25	
l'oluene	8.80	0.50	O	10.0	ND	88	70-120	3	15	
Kylenes (total)	29.8	0.50	ti	30.0	ND	99	80-125	1	15	
Surrogate: 1,2-Dichloroethane-d4	2.42		#	2.50		97	60-145			
Surrogate: 4-Bromofluorobenzene	2.30		"	2.50		92	60-120			
Surrogate: Dibromofluoromethane	2.46		н	2.50		98	75-130			
Surrogate: Toluene-d8	2.32		Ħ	2.50		93	70-130			





Stratus Environmental Inc. [Arco] Project: ARCO #2111, San Leandro, CA MQA1043 3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0023 Reported: Cameron Park CA, 95682 Project Manager: Jay Johnson 02/13/07 13:19

#### Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

đгу Sample results reported on a dry weight basis

RPD Relative Percent Difference

# Atlantic Richfield ompany

A BP affiliated company

BENDER

Page_1 of Y

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**Chain of Custody Record** 

Project Name:

ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

Sec comments

On-site Time:	0615	Temp:	100000 5 bis f
Off-site Time:	1200	Temp:	70°F
Sky Conditions:	Cleai		
Meteorological Ev	ents:		·
Wind Speed:		Direction	n:

_	Name: TestAmerica						BP/AR Facility N	D.,	211	1								10-		· ·	<del></del>			
-	ress: 885 Jarvis Drive					$\neg \vdash$	BP/AR Facility A				i6 Da	vie S	reef C		Mary A	SAN	LEANDRO				actor:	Stratus Environm		
Mor	gan Hill, CA 95937						Site Lat/Long:		·	***	0 100	ָטָ טָנְיּי	ucci, s			27111	CHAPTO	Addr	C55:			eron Park Drive, S	uitæ 550	<u> </u>
	PM: Līsa Race						California Global	ID No	٠.	To	01009	1176						<del> </del>	-			Park, CA 95682		
	/Fax: 408-782-8156 408-782-63	08 (fax)					Enfos Project No.						002	Σ								oject No.:		
BP/	AR PM Contact: Paul Supple						Provision or OOC		ie one)				rision)	<del>-</del>				-			actor PM			
Add	ress: 2010 Crow Canyon Place, Sui	ite 150					Phase/WBS:	(0.20	03-O &	h/		12101	/ISIOH					Tele/				-6000 / (530) 676-6		
	San Ramon, CA		<del></del>				Sub Phase/Task:		03-Anal												C Level:		with EDF	
	Fex: 925-275-3506			_			Cost Element:		01-Cont			-										tt@stratusinc.net	<u> </u>	
Lab	Bottle Order No:		<u> </u>		Mat	rík			1	<del></del>	serv:			<u> </u>			D			Atlan	tic Richi	ield Co.		
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Afr	Laboratory No.	No. of Containers	Unpreserved		23	HCI	Methanol	GRO	BTEX	5-Oxygenates	Request	Et All	alysis			Sample Poir	nt Lat/Long nments	and
I	02111DPEWAINF	0120	1/29/07		x	T	<i>U</i> ]							X	7	7	<del> </del>	<del>                                     </del>		┿	╁┼		10.000	
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Atlantic	
Atlantic Richfield	
Company	

A BP affiliated company

**Chain of Custody Record** 

Project Name:

ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

See comments

0615 On-site Time: 100000 S 15 8 Temp: 70°F Off-site Time: 1200 Temp: Sky Conditions: Clear Meteorological Events: Wind Speed: Direction:

Lab Name: TestAmerica	╝	BP/AR Facility No.	:	2111										Co	nsul	tant/(	Cont	racto	or:		Stratus Environmen	ntal, Inc.	
Address: 885 Jarvis Drive	1_	BP/AR Facility Add	P/AR Facility Address: 1156 Davis Street, Sacramento											Ad	dres	s:	33	330	Can	nero	on Park Drive, Su	ite 550	
Morgan Hill, CA 95937	╙	Site Lat/Long:															С	ame	ron	Par	rk, CA 95682		
Lab PM: Lisa Race	╨	California Global II	) No	·.:	T06	0010	1764							Co	nsul	tant/(	Cont	racto	or Pr	ojec	t No.:		
Tele/Fax: 408-782-8156 408-782-6308 (fax)		Enfos Project No.:			G00	28								Co	nsul	tant/C	Cont	racto	or PN	VI:	Jay Joh	ason	
BP/AR PM Contact: Paul Supple		Provision or OOC	circ	le one)		(	Prov	rision	)					Te	le/Fa	ex:	(5	30)	676	5-60	000 / (530) 676-60	)05	
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Tele/Fax: 925-275-3506	<u> </u>	Cost Element:		01-Contr	actor	labo	Γ			<u></u>				Inv	oice	to:	Atla	ntic !	Rich	field	d Co.		
Lab Bottle Order No: Matri	x				Pres	serva	tive						Reques	ted A	Ingl	ysis							
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I 02111DPEW@INF 0120 1/29/07 X		<i>c</i> )											T	T	Ī	T	T	Т	٦				
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ecial Instructions: Please cc results to rmiller	(cyor	oaquentinc.com																					
Custody Seals In Place: Yes No   Temp Blan	nk: Y	es /No l Co	oler	Temp or	Rec	eint	1.5	0 °F	/C	i	Tr	in P	lank: Yes	/Nr	<del>)</del> -	ı	MS	MS	D S	ัดกา	ple Submitted: Ye	·s No T	
							-/-7				1	.,, 2.				<u></u>			<u> </u>			Sev. 5 10/11/2	1000

### **TEST AMERICA SAMPLE RECEIPT LOG**

CLIENT NAME:  REC. BY (PRINT)  WORKORDER:	AR-CO 2[1] Man My Mylh 1043		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:		-07		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	DRINKING WASTE WA	
CIRCLE THE APPROI	PRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent	<del></del>							
	Intact / Broken*					_	<u> </u>		
2. Chain-of-Custody	Present / Absent*								
3. Traffic Reports or									
Packing List:	Present / Ebsent								
4. Airbill:	Airbill / Sticker Present / Absent							· · · · · · · · · · · · · · · · · · ·	
F ALLIII 4.	Present / Ausen/	<u> </u>		~			<u> </u>		
5. Airbill #: 6. Sample Labels:	Present / Absent			1 1	Λ				
7. Sample IDs:	Listed / Not Listed			11.10	01-			/ ·	
7. Dample 103.	on Chain-of-Custody			1121	V				
8. Sample Condition:	/intact / Broken* /							VOM-	
	Leaking*			_			1		270
9. Does information on	chain-of-custody,		1/4	<i>y</i> ¹		$\angle$	<u> </u>		
traffic reports and sa	ample labėls			<u> </u>			<u> </u>		
agree?	/res / No*						ļ		
10. Sample received within				<b>1</b>			-		
hold time?	(Yes / No*						ļ	<u> </u>	
11. Adequate sample volu				<del>                                     </del>			<del> </del>		
received?	Ves / No*			<del>-/</del>					
12. Proper preservatives u				<del>/ .</del>	<u> </u>	-			
13. Trip Blank / Temp Blar	nk Received?					<del>                                     </del>	<del> </del>		
(circle which, if yes)	Yes / No.				<del> </del>	<del>                                     </del>	<del>                                     </del>		
14. Read Temp:			/		<b> </b>	<b> </b> -	<u> </u>		
Corrected Temp:	12002 (20) Note		<del> /</del>			<del> </del>	<del>                                     </del>		
Is corrected temp 4 +/							<b> </b>		
(Acceptance range for samples re **Exception (if any): MET.							<u> </u>		
or Problem COC	ALS / DEF ON ICE	<del> </del>		· .		<b></b>	1		
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SRL Revision 8 volaces Rev 7 (07/19/05) *IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Page _____ of ____



16 February, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQB0017

Enclosed are the results of analyses for samples received by the laboratory on 01/31/07 08:15. 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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0017 Reported: 02/16/07 10:02

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111ASWINF	MQB0017-01	Water	01/30/07 05:25	01/31/07 08:15

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





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0017 Reported: 02/16/07 10:02

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

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQB0017-01RE1) Water	Sampled: (	01/30/07 05:2	25 Recei	ved: 01/3	1/07 08:15				CL
Gasoline Range Organics (C4-C12)	330	200	ug/l	4	7B14025	02/14/07	02/15/07	LUFT GCMS	PV
Surragate: 1 2-Dichloraethane-d4		90 %	60-	145	rt	it	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0017 Reported: 02/16/07 10:02

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQB0017-01) Water	Sampled: 01/30	/07 05:25	Received:	01/31/07	08:15				
tert-Amyl methyl ether	ND	12	ug/l	25	7B07011	02/07/07	02/08/07	EPA 8260B	
Benzene	ND	12	U	н	н	н	0	и	
tert-Butyl alcohol	3600	500	U	"	"	и	0	и	
Di-isopropyl ether	ND	12	0	н	**	H	U	п	
Ethyl tert-butyl ether	ND	12	H	н	11	н	U	п	
Ethylbenzene	ND	12	It	†1	0	Ħ	11	n	
Methyl tert-butyl ether	440	12	н	ti	U	ø	II .	п	
Toluene	31	12	н	**	U	0	14	n	
Xylenes (total)	25	12	н	0	U	U	II	н	
Surrogate: 1,2-Dichloroethane-d4		92 %	60-	145	n	n	n	II.	
Surrogate: 4-Bromofluorobenzene		82 %	60-	120	n	n	#	"	
Surrogate: Dibromofluoromethane		93 %	75-	130	"	n	**	"	
Surrogate: Toluene-d8		82 %	70-	130	n	n	rr .	n	





Project: ARCO #2111, San Leandro, CA

MQB0017

Project Number: G0C28-0023 Project Manager: Jay Johnson Reported: 02/16/07 10:02

### 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 7B14025 - EPA 5030B P/T /	LUFT GCMS									
Blank (7B14025-BLK1)				Prepared	& Analyze	ed: 02/14/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.30		11	2.50		92	60-145			
Laboratory Control Sample (7B14025-	BS2)			Prepared	& Analyze	ed: 02/14/	07			
Gasoline Range Organics (C4-C12)	518	50	ug/1	500		104	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.29		U	2,50		92	60-145			
Laboratory Control Sample Dup (7B14	4025-BSD2)			Prepared of	& Analyze	ed: 02/14/	07			
Gasoline Range Organics (C4-C12)	503	50	ug/l	500		101	75-140	3	20	
Surrogate: 1,2-Dichloroethane-d4	2.23		Ħ	2,50		89	60-145			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0017 Reported: 02/16/07 10:02

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

<b>1</b>										
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (7B07011-BLK1)				Prepared & An	alyzed: 02/07/	07
tert-Amyl methyl ether	ND	0.50	ug/l			
Benzene	ND	0.50	H			
tert-Butyl alcohol	ND	20	и			
Di-isopropyl ether	ND	0.50	п			
Ethyl tert-butyl ether	ND	0.50	n			
Ethylbenzene	ND	0.50	"			
Methyl tert-butyl ether	ND	0.50	н			
Toluene	ND	0.50				
Xylenes (total)	ND	0.50	и			
Surrogate: 1,2-Dichloroethane-d4	2,27		It	2.50	91	60-145
Surrogate: 4-Bromofluorobenzene	2.07		"	2.50	83	60-120
Surrogate; Dibromofluoromethane	2,33		"	2.50	93	<i>75-130</i>
'urrogate: Toluene-d8	2.03		n	2.50	81	70-130
aboratory Control Sample (7B07011-B	SS1)			Prepared & An	alyzed: 02/07/	07
ert-Amyl methyl ether	10.6	0.50	ug/l	10.0	106	65-135
Benzene	10.8	0.50	и	10.0	108	70-125
ert-Butyl alcohol	171	20	н	200	86	60-135
Pi-isopropyl ether	11.1	0.50	#1	10.0	111	70-130
Ethyl tert-butyl ether	10.7	0.50	н	10.0	107	65-130
Ethylbenzene	11.2	0.50	Ħ	10.0	112	70-130
Methyl teri-butyl ether	11.5	0.50	Ħ	10.0	115	50-140
Toluene	10.6	0.50	Ħ	10.0	106	70-120
(ylenes (total)	35.2	0.50	11	30.0	117	80-125
urrogate: 1,2-Dichloroethane-d4	2.09		ır	2.50	84	60-145
Surrogate: 4-Bromofluorobenzene	2.24		"	2.50	90	60-120
iurrogate: Dibromoftuoromethane	2.21		ır	2.50	88	75-130
urrogate: Toluene-d8	2,18		rt	2.50	87	70-130





Analyte

Project: ARCO #2111, San Leandro, CA

Spike

Level

Source

Result

2.50

2.50

2.50

2.50

87

86

90

88

60-145

60-120

75-130

70-130

%REC

%REC

Limits

RPD

Project Number: G0C28-0023 Project Manager: Jay Johnson

MQB0017 Reported: 02/16/07 10:02

Notes

RPD

Limit

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

Units

Reporting

Limit

Result

2.17

2.16

2.26

2.20

Matrix Spike (7B07011-MS1)	Source: MQ	B0017-01		Prepared (	& Analyze	d: 02/07	/07			
tert-Amyl methyl ether	267	12	ug/l	250	ND	107	65-135			
Benzene	253	12	tt	250	5.2	99	70-125			
tert-Butyl alcohol	8540	500	B	5000	3600	99	60-135			
Di-isopropyl ether	271	12	n	250	ND	108	70-130			
Ethyl tert-butyl ether	265	12	n	250	ND	106	65-130			
Ethylbenzene	260	12	ıŧ	250	ND	104	70-130			
Methyl tert-butyl ether	744	12	11	250	440	122	50-140			
Toluene	237	12	II.	250	31	82	70-120			
Xylenes (total)	808	12	It	750	25	104	80-125			
Surrogate: 1,2-Dichloroethane-d4	2.12		II	2.50		85	60-145			
Surrogate: 4-Bromofluorobenzene	2.17		"	2.50		87	60-120			
Surrogate: Dibromofluoromethane	2.16		"	2.50		86	75-130			
Surrogate: Toluene-d8	2.14		ır	2.50		86	70-130			
Matrix Spike Dup (7B07011-MSD1)	Source: MQ	B0017-01		Prepared	& Analyze	:d: 02/07	07			
tert-Amyl methyl ether	271	12	ug/l	250	ND	108	65-135	1	25	
Benzene	258	12	11	250	5.2	101	70-125	2	15	
tert-Butyl alcohol	8860	500	**	5000	3600	105	60-135	4	35	
Di-isopropyl ether	273	12	**	250	ND	109	70-130	0.7	35	
Ethyl tert-butyl ether	266	12	Ħ	250	ND	106	65-130	0.4	35	
Ethylbenzene	262	12	**	250	ND	105	70-130	0.8	15	
Methyl tert-butyl ether	759	12	н	250	440	128	50-140	2	25	
Toluene	251	12	н	250	31	88	70-120	6	15	
	810	12	н	750	25	105	80-125	0.2	15	

Surrogate: 1,2-Dichloroethane-d4

Surrogate: 4-Bromofluorobenzene

Surrogate: Dibromofluoromethane

Surrogate: Toluene-d8





Stratus Environmental Inc. [Arco] Project: ARCO #2111, San Leandro, CA MQB0017
3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0023 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 02/16/07 10:02

### Notes and Definitions

PV	Hydrocarbon	result partly di	ue to individ	neak(s) in quant	range
1 Y	rivatocarnon	TESTIL INTLLY III	11C III 11IIIIVIII.	. Heakist ill ollaili	.

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

/	PROBLEM CHAIN	I-OF-CUSTO	ODY	MQB0017	
DATE/TIME 13 CLIENT 37 CLIENT SERVICES REP	0/07 18A		RECEIVED _ DUND TIME _ ANALYST _	//30/07 10 SACRAMEN	_ 
The refrig- 2 out of 6 vol	PROBI erator (ID As broke: +	EM Front f imp got	roze o	over and -13°C	
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Client Instruction*	RESOLU L. En	ition vryh d	lekt k	curdyn	
semples			V		
Telephone Number of Client:					
Client Contact for Instruction:	···		······································		
Date and Time of Instruction:					<del></del>
Date & Time Form Given to Sam	ole Control:			**	
CLIENT SERVICES REP. SIGNA DATE	TURE:				

*If client does not return call within 24 hours, please route this form to the Laboratory Director.

White Copy - Client Services

Pink Copy - Sample Control

# Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

Project Name: Avco Z

BP BU/AR Region/Enfos Segment:

BP. America 5 West Refaul RW 12C13

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy): 57 m/ad

On-site Time: OUUS Temp:
Off-site Time: NOOD Temp:
Sky Conditions:
Meteorological Events:
Wind Speed: Direction:

	Morgan MILL CUA 95937					BETAR Facility No	<del>}.:</del>	<u>~</u>	11							11111	Con	Consultant/Contractor: Truty									
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Tele/I		<i>26</i>				Cost Element:	Ol	<u> </u>						-			Invo	ice to	: Cor	ısultar	at or P	3P or/	Atlanti	c Richf	ield Co. (	Circle	one)
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### **TEST AMERICA SAMPLE RECEIPT LOG**

CLIENT NAME: REC. BY (PRINT) WORKORDER:	ANO AM MRBOOIT		DATE REC'D AT LAB: 1-31-07 TIME REC'D AT LAB: 8:15 DATE LOGGED IN: 211/07				·	DRINKING WASTE W			
CIRCLE THE APPR	OPRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)		
1. Custody Seal(s)	Present / Absent . (Intact / Broken*										
2. Chain-of-Custody	Presenty Absent*										
3. Traffic Reports or											
Packing List:	Presen) / Absent										
4. Airbill:	Airbill Sticker					·					
	Present/ Absent										
5. Airbill #: C/4	·Overnight			A)							
6. Sample Labels:	Present / Absent		•						-		
7. Sample IDs:	Listed / Not Listed								OZII ASW INF		
	on Chain-of-Custody					D			2 of 6 Broken		
8. Sample Condition:	(ntaci / Broken* /					/_					
	Leaking*			·	. 4						
9. Does information o			· · · · · · · · · · · · · · · · · · ·	1/2							
traffic reports and	. / 3			<i>[</i> /v]							
agree?	Yes / No*										
10. Sample received with				51/							
hold time?	Yesy No*			~_/							
11. Adequate sample vo	iume		\' \'	//							
received?	Yes) No*										
12. Proper preservatives						س.					
13. Trip Blank / Temp Bl				•							
(circle which, if yes)	Yes / (No)										
14. Read Temp:	<u> </u>								i i i i i i i i i i i i i i i i i i i		
Corrected Temp:	5%										
is corrected temp 4	+/-2°C? (Yes)/ No**										
(Acceptance range for samples											
**Exception (if any): ME	TALS / DFF ON ICE								100/100		
or Problem COC											

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

California Overnight Shipping Label



Date Printed 1/30/2007

Shipped From: TEST AMERICA - SACRAMENTO 819 STRIKER AVENUE 8

SACRAMENTO, CA 95834

Tracking#D10010119090209

Sent By: TIM ALBRIGHT Phone#: (916)921-9600

wgt(lbs): 40 Reference:

Decl. Value: \$0.00

Ship To Company:

**TESTAMERICA - MORGAN HILL** 885 JARVIS DR MORGAN HILL, CA 95037 SAMPLE CONTROL (408)776-9600 Service: S

Sort Code: SJC

Special Services:

# Atlantic Richfield

A BP-affiliated company

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Chain of Custody Record
Project Name: Avio

Project Name: Avio BP BU/AR Region/Enfos Segment:

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

REVISED

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On-site Time: 0449	Temp:	_
Off-site Time: 1600	Тетр:	
Meteorological Events:		$\Box$
Wind Speed:	Direction:	

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Shipment Date: 1-3007			<del>e</del> A		100	11-0	<del>ل</del> _	3/	07 /		LIT				
hipment Method: Stutu	7	$\nearrow$	_>	<u>)                                    </u>				[//30	<i>[4]</i> [2]	5/6	and Attallin	1/8/17 845			
hipment Tracking No:									-	9		1/81-1/010			
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ustody Seals In Place: (Yes) No   Temp B	iank: Yes (N	Ooler To	amn r	n Re	ceint.		"F/C	-	· · · ·						
19.					CCIPL.		rc	<u> </u>	Tub	Blank:	Yes (N)   MS/MSD Sam	ole Submitted: Yes / XIQ			

### Lisa Race

From:

Sandy Hayes [shayes@stratusinc.net]

Sent:

Monday, February 05, 2007 10:30 AM

To:

Lisa Race

Subject:

RE: problem COC for ARCO#2111 - MQB0017

Attachments: 2111 COC.pdf

REVISED

Hi Lisa,

The correct Enfos # is G0C28-0023...I've attached a revised copy.

Thanks, Sandy

Sandy Hayes
Stratus Environmental, Inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682
shayes@stratusinc.net
Phone: 530-676-6004

Fax: 530.676.6005

----Original Message----

From: Lisa Race [mailto:lrace@testamericainc.com]

Sent: Monday, February 05, 2007 10:16 AM

To: knagaraju@stratusinc.net; scarter@stratusinc.net; Sandy Hayes; Scott Bittinger

Subject: problem COC for ARCO#2111 - MQB0017

Please complete the ENFOS # for this project.

Lisa Race Senior Project Manager, Morgan Hill, CA TestAmerica Analytical Testing Corporation

Tel.: 408-776-9600 Direct.: 408-782-8156 Fax: 408-782-6308

e-mail: <a href="mailto:lrace@testamericainc.com">lrace@testamericainc.com</a></a>
NOTE NEW E-MAIL ADDRESS

***This transmission contains information that may be legally confidential. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this transmission in error, please reply immediately to the sender that you have received the message in error. Because access to receiving equipment is not under our control, we cannot be responsible for the confidentiality of electronically transmitted data.***



31 January, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQA1078

Enclosed are the results of analyses for samples received by the laboratory on 01/31/07 08:15. 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.





Project: ARCO #2111, San Leandro, CA MQA1078
Project Number: G0C28-0023 Reported:
Project Manager: Jay Johnson 01/31/07 15:56

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111AGAC1	MQA1078-01	Vapor	01/30/07 05:08	01/31/07 08:15

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





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQA1078 Reported: 01/31/07 15:56

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111AGAC1 (MQA1078-01) Vapor	Sampled: 01/30/0	7 05:08 R	teceived: 01	/31/07 0	8:15				·
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7A31011	01/31/07	01/31/07 13:21	EPA 8015B/8021B	
Benzene	ND	0.10	U	н	Ħ	n	e	U	
Toluene	ND	0.10	U	11	11	ti ti	U	O	
Ethylbenzene	ND	0.10	U	н	11	ti ti	H	O	
Xylenes (total)	ND	0.20	U	и	9	0	n	0	
Methyl tert-butyl ether	ND	0.50	U	и	**	ø	ø	ti	
Surrogate: a,a,a-Trifluorotoluene		93 %	65-1-	10	n	11	"	li .	
Surrogate: 4-Bromofluorobenzene		<b>9</b> 7 %	70-1.	25	n	17	u	rt	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	п	11	11	U	И	
Benzene	ND	0.031	II	IF	tı	Ħ	0	н	
Toluene	ND	0.027	II	If	#	n	II.	H	
Ethylbenzene	ND	0.023	ti	t <del>t</del>	11	н	0	н	
Xylenes (total)	ND	0.047	a	If	"	н	п	И	
Methyl tert-butyl ether	ND	0.14	ri .	l†	п	"	u	н	
Surrogate: a,a,a-Trifluorotoluene		93 %	65-1-	10	11	n	n	rr .	
Surrogate: 4-Bromofluorobenzene		96 %	70-1.	25	и	11	v	Tr.	





Project: ARCO #2111, San Leandro, CA

MQA1078 Reported: 01/31/07 15:56

Project Number: G0C28-0023 Project Manager: Jay Johnson

# Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

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

Batch 7A31011 - EPA 5030B [P/T]	EPA 8015B/80	21B			
Blank (7A31011-BLK1)			Prepared & An	nalyzed: 01/31/0	07
Gasoline Range Organics (C4-C12)	ND	50 mg/m			
Gasoline Range Organics (C4-C12)	ND	12 ppn			
Benzene	ND	0.50 mg/m	Air		
Benzene	ND	0.16 ррп	v		
Toluene	ND	0.50 mg/m	Air		
Toluene	ND	0.13 ppn	v		
Ethylbenzene	ND	0.50 mg/m	Air		
Ethylbenzene	ND	0,12 ppn	v		
Xylenes (total)	ND	1.0 mg/m	Air		
Xylenes (total)	ND	0.24 ррп	v		
Methyl tert-butyl ether	ND	2.5 mg/m	Аiг		
Methyl tert-butyl ether	ND	0.69 ррп	<b>v</b>		
Surrogate: a,a,a-Trifluorotoluene	39.4	mg/m	Air 40.0	98	65-140
Surrogate: a,a,a-Trifluorotoluene	6.60	ppn	v 6,70	99	65-140
Surrogate: 4-Bromofluorobenzene	40.2	mg/m	Air 40.0	100	70-125
Surrogate: 4-Bromofluorobenzene	5.63	ppn	v 5.59	101	70-125
Laboratory Control Sample (7A31011-I	3S1)		Prepared & An	nalyzed: 01/31/0	77
Gasoline Range Organics (C4-C12)	240	50 mg/m	Air 275	87	70-115
Gasoline Range Organics (C4-C12)	68.2	12 ррп	v 78.0	87	70-115
Benzene	4.74	0.50 mg/m	Air 4.85	98	80-150
Benzene	1.49	0.16 ррп	v 1.52	98	80-150
Toluene	21.6	0.50 mg/m	Air 23.5	92	75-125
Toluene	5.73	0.13 ррп	v 6,25	92	75-125
Ethylbenzene	4.04	0.50 mg/m	Аіг 4.70	86	75-135
Ethylbenzene	0.933	0.12 ррп	v 1.08	86	75-135
Xylenes (total)	25.2	1.0 mg/m ²	Air 26,5	95	75-135
Xylenes (total)	5.81	0.24 ppn	v 6.12	95	75-135
Methyl tert-butyl ether	4.84	2.5 mg/m	Air 6.50	74	60-140
Methyl tert-butyl ether	1.35	0.69 ppn	v 1.81	75	60-140
Surrogate: a,a,a-Trifluorotoluene	47.7	mg/m	Air 40.0	119	65-140
Surrogate: a,a,a-Trifluorotoluene	7.99	ppn	v 6.70	119	65-140
Surrogate: 4-Bromofluorobenzene	40.9	mg/m	Air 40.0	102	70-125
Surrogate: 4-Bromofluorobenzene	5.72	ppn	v 5.59	102	70-125





Project: ARCO #2111, San Leandro, CA

MQA1078 Reported: 01/31/07 15:56

Project Number: G0C28-0023 Project Manager: Jay Johnson

# Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

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

Batch 7	A31011 -	<b>EPA</b>	5030B	[P/T]	/EPA	8015B/8021B

Laboratory Control Sample Dup (7A3101)	-BSD1)	Prepared & Analyzed: 01/31/07								
Gasoline Range Organics (C4-C12)	237	50 mg	g/m³ Air	275	86	70-115	1	35		
Gasoline Range Organics (C4-C12)	67.3	12 p	ppmv	78.0	86	70-115	1	35		
Benzene	4.45	0.50 mg	g/m³ Air	4.85	92	80-150	6	35		
Benzene	1.40	0.16 F	ppmv	1.52	92	80-150	6	35		
Toluene	5.60	0.13	<b>į</b> I	6.25	90	75-125	2	30		
Toluene	21.1	0.50 mg	g/m³ Air	23.5	90	75-125	2	30		
Ethylbenzene	3.90	0.50	ti .	4.70	83	75-135	4	30		
Ethylbenzene	0.900	0.12 p	ppmv	1.08	83	75-135	4	30		
Xylenes (total)	24.5	1.0 mg.	₂/m³ Aìr	26.5	92	75-135	3	30		
Xylenes (total)	5.65	0.24 p	ppmv	6.12	92	75-135	3	30		
Methyl tert-butyl ether	4.81	2.5 mg.	g/m³ Air	6,50	74	60-140	0.6	30		
Methyl tert-butyl ether	1.34	0.69 p	ppmv	1.81	74	60-140	0.7	30		
Surrogate: a,a,a-Trifluorotoluene	46.7	mg.	g/m³ Air	40.0	117	65-140				
Surrogate: a,a,a-Trifluorotoluene	7.82	P	ppmv	6.70	117	65-140				
Surrogate: 4-Bromofluorobenzene	41.3	mg	ş/m¹ Aîr	40.0	103	70-125				
Surrogate: 4-Bromofluorobenzene	5.77	F	ppmv	5.59	103	70-125				





Stratus Environmental Inc. [Arco] Project: ARCO #2111, San Leandro, CA MQA1078
3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0023 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 01/31/07 15:56

### Notes and Definitions

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Atla	ntic	
Atla Ric	hfie	d
Con	npan	У

A BP affillated company

Chain	of	Custody	Recor	d

Project Name: ANGO 2110

BP BU/AR Region/Enfos Segment: State or Lead Regulatory Agency: BP Americus West Retal RW 12CB - SAW Fran

Requested Due Date (mm/dd/yy):

244R-THY

	Page of _
On-site Time: 0445	Temp:
Off-site Time: /7/400	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: Pest Howrica	BP/AR Facility No.: 2///	Consultant/Contractor: Strutt 9
Address: 884 Tamus DRIVE	BP/AR Facility Address: 1156 Davis St SAN Leoula	peddress: 3330 Camerun Ph DR
Mouseur Hul CH 95937 Lab PM: LISU Ruce Tele/Fax: 4087828156	Site Lat/Long:	Camerun Ph CH 95682
Lab PM: Lysu Ruce	California Global ID No.: To GOO 101764	Consultant/Contractor Project No.: ビスル(
Tele/Fax: 40878と8156	Enfos Project No.: GOC 28	Consultant/Contractor PM: 544
BP/AR EBM: PWU SUPIDIE	Provision or OOC (circle one)	Tele/Fax: 530 676 6004
Address: 2010 Crow Canyon Plune #190	Phase/WBS: D3-O/M	Report Type & QC Level:   - EDF
Address: 2010 Crow Compan Plane #190	Sub Phase/Task: 03 LAB	E-mail EDD To: CJewitt Q. Strutes INC. Net
Tele/Fax: 9 とケ スアケ ラダ 06	Cost Element: 0	Invoice to: Consultant or BP of Atlantic Richfield Co (circle one)
Lab Bottle Order No: Matrix	Preservative Requ	ested Analysis
Item Date Description Time Soil/Solid Water/Liquid	No. of Containers Unpreserved HNO. HNO. HNO. HNO. HNO. HNO. HCI Methanol	Sample Point Lat/Long and Comments
1 02111 AGAC 1 0508 13000 X	01 /	24 HR TAY
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8		
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		(2.7°°)
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Sampler's Company: Stratus	200 1 2 to tuce 1300/100(	1/30/07 1001
Shipment Date: 1-30-07	1/34/03 1516	May Middin 1/3/07 8:5
Shipment Method: Strutt 3		
Shipment Tracking No:  vial Instructions: CC 1690145 Kmill		
ctar instructions: EL 1620177 KMIII	er (a) troub touting. Com	•
vistody Seals In Place: (res)/ No   Temp Blank: Yes/	No   Cooler Temp on Receipt: NA "F/C   Trip Blank:	Yes (No)   MS/MSD Sample Submitted: Yes (No)
Tomp Diant, 1637	20 1 Cooler temp on receipt 147- 170   Tith Digits.	1 ca /(1 to) Intolivior outilities atomittee. 1 cs (140)

### **TEST AMERICA SAMPLE RECEIPT LOG**

CLIENT NAME: REC. BY (PRINT) WORKORDER:	Avco A.M.	DATE LOGGED IN:				For Regulatory Purposes? DRINKING WATER YES NO WASTE WATER YES NO					
CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION /ETC.)		
1. Custody Seal(s)	Present / Absent . (ntact / Broken*										
2. Chain-of-Custody	Present)/ Absent*										
3. Traffic Reports or							•				
Packing List:	Present / Absent										
4. Airbill:	Airbill / Sticker										
	Present / Absent										
5. Airbill #: CA.	Overnight			*:							
6. Sample Labels:	Present/ Absent					(	0/				
7. Sample IDs:	(Listed)/ Not Listed					Q.					
	on Chain-of-Custody				4	ركو					
8. Sample Condition:	htact/ Broken* /				×, /			*			
	Leaking*		•		<u> </u>	<del></del>					
9. Does information o		, .,									
traffic reports and				(0)							
agree?	Yesy No*	<del></del>									
10. Sample received with											
hold lime?	Yesy No*										
11. Adequate sample vo				·					.		
received?	Yes / No*										
12. Proper preservatives						<u></u>					
13. Trip Blank / Temp Bl									<u> अध्यक्ष</u>		
(circle which, if yes)	Yes /(No)										
14. Read Temp:	NA_										
Corrected Temp:									Y4457		
•	+/-2°C? Yes / No**								Maria Santa		
(Acceptance range for samples											
**Exception (if any): ME											
or Problem COC	Hir Lag			-					i i		

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

California Overnight Shipping Label



Date Printed 1/30/2007

Shipped From: TEST AMERICA - SACRAMENTO 819 STRIKER AVENUE 8 SACRAMENTO, CA 95834



Tracking#D10010119101725

Sent By: TIM ALBRIGHT Phone#: (916)921-9600

wgt(lbs): 1 Reference:

Decl. Value: \$0.00

Ship To Company: TESTAMERICA - MORGAN HILL 885 JARVIS DR MORGAN HILL, CA 95037

SAMPLE CONTROL (408)776-9600

Service: S

Sort Code: SJC

Special Services:

15 February, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQB0043

Enclosed are the results of analyses for samples received by the laboratory on 02/01/07 07:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race

Senior Project Manager

CA ELAP Certificate # 1210

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





Project: ARCO #2111, San Leandro, CA

MQB0043 Reported: 02/15/07 15:06

Project Number: G0C28-0023

Project Manager: Jay Johnson

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111ASWINF	MQB0043-01	Water	01/31/07 07:45	02/01/07 07:30

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





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023

Project Manager: Jay Johnson

MQB0043 Reported: 02/15/07 15:06

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

### TestAmerica - Morgan Hill, CA

Analyte	Result	Reparting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
2111ASWINF (MQB0043-01RE1) Water Sampled: 01/31/07 07:45 Received: 02/01/07 07:30											
Gasoline Range Organics (C4-C12)	300	100	ug/l	2	7B14008	02/14/07	02/14/07	LUFT GCMS	PV		
Surrogate: 1.2-Dichloroethane-d4		96 %	60-	145	IJ	"	"	11			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0043 Reported: 02/15/07 15:06

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQB0043-01) Water	Sampled: 01/31	/07 07:45	Received	02/01/07	07:30				
tert-Amyl methyl ether	ND	12	ug/l	25	7B07011	02/07/07	02/08/07	EPA 8260B	
Benzene	ND	12	н	и	14	11	Ħ	P	
tert-Butyl alcohol	3200	500	И	н	It.	11	**	H .	
Di-isopropyl ether	ND	12	и	н	IP.	R	п	п	
Ethyl tert-butyl ether	ND	12	И	И	If	It	tt	H	
Ethylbenzene	ND	12	н	н	It	ıŧ	*1	II.	
Methyl tert-butyl ether	490	12	п	п	1+	IF	11	H .	
Toluene	ND	12	"	и	14	R	Ħ		
Xylenes (total)	ND	12	ıı	н	I†	R	*1	H	
Surrogate: 1,2-Dichloroethane-d4		96 %	60-	-145	"	u	11	"	
Surrogate: 4-Bromofluorobenzene		77 %	60-	120	"	n	"	"	
Surrogate: Dibromofluoromethane		100 %	75-	130	"	n	n.	**	
Surrogate: Toluene-d8		80 %	70-	130	"	n	tt	u	





Project: ARCO #2111, San Leandro, CA

Spike

Source

MQB0043 Project Number: G0C28-0023

%REC

Project Manager: Jay Johnson

Reported: 02/15/07 15:06

RPD

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch 7B14008 - EPA 5030B P/T /	LUFT GCMS										
Blank (7B14008-BLK1)				Prepared	& Analyze	ed: 02/14/	07				
Gasoline Range Organics (C4-C12)	ND	50	ug/l								
Surrogate: 1,2-Dichloroethane-d4	2.41		"	2.50		96	60-145		***************************************	***************************************	
Laboratory Control Sample (7B14008-	-BS2)			Prepared	& Analyzed: 02/14/07						
Gasoline Range Organics (C4-C12)	527	50	ug/l	500		105	75-140				
Surrogate: 1,2-Dichloroethane-d4	2.45		11	2,50		98	60-145				
Laboratory Control Sample Dup (7B14008-BSD2)				Prepared	& Analyze	ed: 02/14/	07				
Gasoline Range Organics (C4-C12)	490	50	ug/l	500		98	75-140	7	20		
Surrogate: 1,2-Dichloroethane-d4	2.48		n	2,50		99	60-145	***************************************			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0043 Reported: 02/15/07 15:06

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

1										
1		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (7B07011-BLK1)				Prepared & An	alyzed: 02/07/	07
tert-Amyl methyl ether	ND	0.50	ug/l			
Benzene	ND	0.50	H			
tert-Butyl alcohol	ND	20	It			
Di-isopropyl ether	ND	0.50	1+			
Ethyl tert-butyl ether	ND	0.50	I÷			
Ethylbenzene	ND	0.50	11			
Methyl tert-butyl ether	ND	0.50	H			
<b>Foluene</b>	ND	0.50	н			
Xylenes (total)	ND	0.50	н			
rrogate: 1,2-Dichloroethane-d4	2.27	***************************************	n	2.50	91	60-145
Surrogate: 4-Bromofluorobenzene	2.07		n	2.50	83	60-120
urrogate: Dibromofluoromethane	2.33		**	2.50	93	75-130
urrogate: Toluene-d8	2.03		rt	2.50	81	70-130
iboratory Control Sample (7B07011-	BS1)			Prepared & An	alyzed: 02/07/	07
rt-Amyl methyl ether	10.6	0.50	ug/l	10.0	106	65-135
enzene	10.8	0.50	н	10.0	108	70-125
rt-Butyl alcohol	171	20	н	200	86	60-135
i-isopropyl ether	11.1	0.50	н	10.0	111	70-130
thyl tert-butyl ether	10.7	0.50	н	10.0	107	65-130
thylbenzene	11.2	0.50	н	10.0	112	70-130
lethyl tert-butyl ether	11.5	0.50	и	10.0	115	50-140
Coluene	10.6	0.50	H	10.0	106	70-120
(ylenes (total)	35.2	0.50	и	30.0	117	80-125
urrogate: 1,2-Dichloroethane-d4	2.09		"	2.50	81	60-145
urrogate: 4-Bromofluorobenzene	2.24		"	2.50	90	60-120
urrogate: Dibromofluoromethane	2.21		*	2.50	88	75-130
rrogate: Toluene-d8	2.18		#	2.50	87	70-130





Analyte

Project: ARCO #2111, San Leandro, CA

Spike

Level

Source

Result

%REC

Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0043 Reported: 02/15/07 15:06

Notes

RPD

Limit

%REC

Limits

RPD

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

Units

Reporting

Limit

Result

Matrix Spike (7B07011-MS1)	Source: MQ		Prepared							
tert-Amyl methyl ether	267	12	ug/l	250	ND	107	65-135			
Benzene	253	12	41	250	5.2	99	70-125			
tert-Butyl alcohol	8540	500	ø	5000	3600	99	60-135			
Di-isopropyl ether	271	12	tt	250	ND	108	70-130			
Ethyl tert-butyl ether	265	12	0	250	ND	106	65-130			
Ethylbenzene	260	12		250	ND	104	70-130			
Methyl tert-butyl ether	744	12		250	440	122	50-140			
Toluene	237	12	*	250	31	82	70-120			
Xylenes (total)	808	12	It	750	25	104	80-125			
Surrogate: 1,2-Dichloroethane-d4	2.12		"	2.50	***************************************	85	60-145			
Surrogate: 4-Bromofluorobenzene	2.17		"	2.50		87	60-120			
Surrogate: Dibromofluoromethane	2.16		"	2.50		86	75-130			
Surrogate: Toluene-d8	2.14		"	2.50		86	70-130			
Matrix Spike Dup (7B07011-MSD1)	Source: MQ	B0017-01		Prepared .	& Analyze	d: 02/07	07			
tert-Amyl methyl ether	271	12	ug/l	250	ND	108	65-135	1	25	
Benzene	258	12	It	250	5.2	101	70-125	2	15	

Matrix Spike Dup (7B07011-MSD1)	Source: MQ	B0017-01		Prepared a	& Analyze	d: 02/07/	07			
tert-Amyl methyl ether	271	12	ug/l	250	ND	108	65-135	1	25	
Benzene	258	12	It	250	5.2	101	70-125	2	15	
tert-Butyl alcohol	8860	500	11	5000	3600	105	60-135	4	35	
Di-isopropyl ether	273	12	11	250	ND	109	70-130	0.7	35	
Ethyl tert-butyl ether	266	12	H	250	ND	106	65-130	0.4	35	
Ethylbenzene	262	12	11	250	ND	105	70-130	0.8	15	
Methyl tert-butyl ether	759	12	n	250	440	128	50-140	2	25	
Toluene	251	12	H	250	31	88	70-120	6	15	
Xylenes (total)	810	12	17	750	25	105	80-125	0.2	15	
Surrogate: 1,2-Dichloroethane-d4	2.17		"	2.50		87	60-145			***************************************
Surrogate: 4-Bromofluorobenzene	2.16		"	2.50		86	60-120			
Surrogate: Dibromofluoromethane	2.26		"	2.50		90	75-130			
Surrogate: Toluene-d8	2.20		"	2,50		88	70-130			





Project: ARCO #2111, San Leandro, CA

MQB0043 Reported:

Project Number: G0C28-0023 Project Manager: Jay Johnson

02/15/07 15:06

### Notes and Definitions

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

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	
Atlantic Richfield	k
Company	/

A BP affiliated company

### **Chain of Custody Record**

Project Name: ARCO 2111
BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

	1 u5c
On-site Time: 0520	Temp: 45
Off-site Time: 0900	Temp: 50
Sky Conditions: C\Um	
Meteorological Events:	
Wind Speed:	Direction;

Lab Name: TestAmerica		BP/AR Facility No.		2111								С	onst	ltant/	Cont	tracto	)F;		Stratus Environmenta	l, Inc.	
Address: 885 Jarvis Drive	1	BP/AR Facility Add	lress:		115	6 Da	vis St	reet, Sa	n Lea	idro		A	ddre	55:	3	330	Cam	nero	n Park Drive, Suite	:550	
Morgan Hill, CA 95937		Site Lat/Long:													C	ame	ron I	Parl	k, CA 95682		
Lab PM: Lisa Race	┸	California Global II	) No	:	T06	0010	1764	<u> </u>					Consultant/Contractor Project No.:								
Tele/Fax: 408-782-8156 408-782-6308 (fax)	Ш	Enfos Project No.:			GOO	C28-(	0023						onsi	ltant/	'Cont	tracto	r PM	<b>4</b> :	Jay Johnso	n	
BP/AR PM Contact: Paul Supple		Provision or OOC (	circ	e one)			Prov	rision			·	Ţ	clc/l	ax:	(:	530)	676	-60(	00 / (530) 676-600	5	
Address: 2010 Crow Canyon Place, Suite 150	_	Phase/WBS:		03-O & i	M							R	epor	t Typ	e & (	QC L	evel:	:	Level I wi	th EDF	
San Ramon, CA	╨	Sub Phase/Task:		03-Analy	tical														stratusinc.net		
Tele/Fax: 925-275-3506		Cost Element:		01-Contr								_		c to:		ntic F	<b>Cichf</b>	field	Co.		
Lab Bottle Order No: Matri	x		1		Pre	servs	ative				Reques	sted	Ana	lysis				$\sqsupset \Gamma$		-	
No.  Time  Date  Date  Water/Liquid  Air		MPBDD43 Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO3	HCI	Methanol	13. BEX	50075									Sample Point I Comm		and
1 DZIII ASWINF 0745 13107 X		61	6				X		У					$\top$					5 044	.5	
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10	<u> </u>			7	<u> </u>				╝			Ţ						_ L			
Sampler's Name: Chv13 H111		/ Retir	191113	nga By / A						ate	Time			1	λc	ccpts	# By	/AI	filiation	Daty	Time
Sampler's Company: Strutus		That V	1/		`</td <td>ton</td> <td>re</td> <td>en g</td> <td><u> 13</u></td> <td>07</td> <td>1230</td> <td></td> <td>12</td> <td>34</td> <td>1</td> <td>the</td> <td>=</td> <td>$\equiv$</td> <td>JA SAC 49C</td> <td>1/2/07</td> <td></td>	ton	re	en g	<u> 13</u>	07	1230		12	34	1	the	=	$\equiv$	JA SAC 49C	1/2/07	
Shipment Date: 1-31-07	(			Mo					1/3	1/07	52			lud	.11	M	MI	11/1	a	2-1-01	7:30
Shipment Method: Status																					
Shipment Tracking No:																					
Special Instructions: Please cc results to rmiller@broadbentinc.com																					
Custody Seals In Place: Yes /(No)   Temp Blank: Yes /(No)   Cooler Temp on Receipt: 4°F(C)   Trip Blank: Yes /(No)   MS/MSD Sample Submitted: Yes /(No)																					
Custody Seals In Place: Yes /(No)   Temp Bla	nk: )	(es/(No)   Co	oler	Lemp of	n Kec	ceipt	.,		ا (ز	111	p Blank: Ye:	5 / (P	<b>10</b> 8		MS	MS/MS	יט אי	amr	ple Submitted: Yes	/ (NO)	

### **TEST AMERICA SAMPLE RECEIPT LOG**

REC. BY (PRINT) A.M.	DATE REC'D AT LAB: TIME REC'D AT LAB:	2-1-0				For Bonula	
			a				tory Purposes?
	DATE I OCCED IN.	2-1-0		•			WATER YES NO
<u> </u>	DATE LOGGED IN:	2-1-0	7	•	•	WASTE WA	ATER YES INO
CIRCLE THE APPROPRIATE RESPONSE   LAB		CONTAINER	PRESER		SAMPLE	DATE	REMARKS:
SAMPLE#	CLIENT ID	DESCRIPTION		Hq	1	SAMPLED	CONDITION (ETC.)
Custody Seal(s) Present (Absent							
/ Intact / Broken*							
2. Chain-of-Custody Present Absent*							
3. Traffic Reports or							
Packing List: Present / Absent							
4. Airbill; Airbilk/ Sticker							
Rresent / Absent					( .		
5. Airbill#: See Attached		х-					
6. Sample Labels: Present Absent	•			а			
7. Sample IDs: Listed / Not Listed			4	JP /	7		
on Chain-of-Custody			-y.				
8. Sample Condition: (ntact)/ Broken* /		÷	V; ,				
Leaking*			$\mathcal{L}$				
9. Does Information on chain-of-custody,	•						
traffic reports and sample labels		\'\'					
agree? (fes/ No*		1/					
10. Sample received within		7 1					
hold lime? (Yes) No*	/						
11. Adequate sample volume		·					· .
received? (Yes) / No*							
12. Proper preservatives used? (Yes)/ No*				_			
13. Trip Blank / Temp Blank Received?		•					
(circle which, if yes) Yes (No*							5
14. Read Temp:							Estatues,
Corrected Temp:							
is corrected temp 4 +/-2°C7 Yes/ No**							
(Acceptance range for samples requiring thermal pres.)							
**Exception (if any): METALS / DFF ON ICE							100 TA
or Problem COC		•					i di

SRL Revision 8 Replaces Rev 7 (07/19/05) *IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Page of

California Overnight Shipping Label



Date Printed 1/31/2007

Shipped From: TEST AMERICA - SACRAMENTO 819 STRIKER AVENUE 8 SACRAMENTO, CA 95834



Tracking#D10010119261123

Sent By: TIM ALBRIGHT Phone#: (916)921-9600

wgt(lbs): 33 Reference:

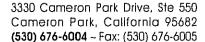
Decl. Value: \$0.00

Ship To Company:

TESTAMERICA - MORGAN HILL 885 JARVIS DR MORGAN HILL, CA 95037 SAMPLE CONTROL (408)776-9600 Service: S

Sort Code: SJC

Special Services:





March 6, 2007 Project No.: E2111-03

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

Re:

Remediation System Operation and Maintenance Data Package, ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California (Field activities performed on February 1, 2, 5, 20, 27, 2007)

### **General Information**

Data Submittal Prepared / Reviewed by: Sandy Hayes and Kiran Nagaraju / Jay Johnson

Phone Number: (530) 676-6007 / (530) 676-6000

On-Site Supplier Representatives: Chris Hill

System Overview: Dual Phase Extraction System, Air Stripper, and Groundwater Extraction and Treatment System

Operational Status: Continuous operation.

Scope of Work Performed: Conduct routine system operation and maintenance, and record field measurements. Influent, mid-fluent, and effluent air and water samples were collected on February 5, 2007.

Variations from Work Scope: A flow totalizer was installed prior to the air-stripper to estimate the air stripper groundwater treatment flow rate.

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

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Kiran Nagaraju Staff Engineer

# Jay R. Johnson No. 5867 Project Manager OF CALIFORNIA

### Attachments:

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

CC: Paul Supple, BP/ARCO

### 1156 Davis Street San Leandro, California



## Dual Phase Extraction and Air Stripper System

Date: Onsite Time: Offsite Time: Equipment Ma	2     7 05   5 0630 nufacturer/Mo	del#		Technician: Weather Condit Ambient Tempe	Chill clear 240	clear		
			System Info	ormation				
System Status	Upon Arrival:		Operational	X	Non-Operation	onal	]	
System Status	Upon Departu	ıre:	Operational	$\square$	Non-Operation	onal	]	
Electric Meter	Reading:	2126		<del></del>		<del> </del>		
Hour Meter Re	ading:	82-3						
Totalizer Reading Prior to  Air Stripper:			<u> </u>	PID Calibration	Date:	31/07	-	
Totalizer Read Stripper:	ing After Air	1760	10					
			Field Meası	ırements				
Parar	neter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Com	ments	
Differential Pre	essure, "wc							
Air Velocity, FI	PM	1270	1286					
Pipe Diameter	, inches	3	4	4	3			
Air Flow Rate,	cfm			200				
Applied Vacuu	m, "wc	20" ltg		NA	NA			
Temperature,	deg F	160	113	[08	88			
PID Readings,	ppmv	203	10	65	φ	PID for GAC	C-1: OppmV	
		Oth	er Readings/i	Measurements				
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs				
V-1			3					
V-2								
V-3								
MW-1								
MW-3								
MW-7		9/1	,					
Signature:	Chon	M		Date:	2 1	7		

### 1156 Davis Street

### San Leandro, California

### Dual Phase Extraction and Air Stripper System

	Sampling Inform	nation (monthly)	
Sample ID	Date & Time	Sample ID	Date & Time
2111DPEAINF		02111AGAC1	
2111ASAEFF		02111AEFF	
2111ASYSINF			
nalyses Required: GRO, B	TEX, and MTBE		
	Operation & Ma	intenance Notes	
		<u> </u>	
		···	
		· · · · · · · · · · · · · · · · · · ·	
ah Parameters	Sampling Eroquenou	Constant and the second	

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method		
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015		
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B		
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B		
	/ 7				

### 1156 Davis Street

### San Leandro, California

### Groundwater Treatment System

Date: Onsite Time: Offsite Time:	2/1/7		•	Technician Weather Co Ambient Te	onditions:	Chill (lead 40	
System Status Upon Arrival:  System Status At Departure:  Transfer Pump:  Transfer Pump Hour Meter Reading:  Effluent Flow Totalizer Reading:  No. of Carbon Vessels:  Lead Carbon Vessel Pressure (psi):			Operational Operational Operational NA		Non-operation Non-operation Non-operation Effluent Wat (Quarterly by pH: Temperature		
Well ID	Hour Meter F	Reading	Totalizer	Reading	Total Depth	Pump Depth	
MW-2			1800		p 04f		
Samı	ole ID		pling Infor		iple ID	Date & Ti	
02111DPEWIN 02111ASWINF				02111MW2	-		
02111ASWEFF 02111WGAC1 02111WEFF							· · · · · · · · · · · · · · · · · · ·
Lab Par	ameters	Sampling	Frequency	Sample	Location	Analytical Mo	ethod
GRO, BTEX, & 5-Oxys Mor		nthly	INF	& EFF	EPA Method 8260B		
Notes: Signature:	Thus			Date:	2 11	1	

### 1156 Davis Street

San Leandro, California

# Dual Phase Extraction and Air Stripper System

PRECIMAL
URIGINAL

Date: 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- Air Hou	Technician: Weather Cond Ambient Temp	CHILL Clum 45			
		PID				
		System In	formation			
System Status Upon Arr	val:	Operational	Non-Operational			
System Status Upon De	parture:	Operational	冈	Non-Operati	ional	
Electric Meter Reading:	077	78	·	,	<b>  </b>	:
Hour Meter Reading:	106	.7	<del>-</del>			
Totalizer Reading Prior to Air Stripper:	NA	INSTALLEC ,	PID Calibration	Date: 2	2-07	:
Totalizer Reading After A Stripper:	ir 2649	70	<del>.</del>			
		Field Meas	uremente			
Parameter	Influent (after blower, 2111DPEAINF)	Air Ctrimm	System	Stack Air Flow (2111AEFF)	Comment	s
Differential Pressure, "wo		30		(211)		*
Air Velocity, FPM	1423	1462	NM	NM		
Pipe Diameter, inches	3	4	4	3		
Air Flow Rate, cfm		-	200			
Applied Vacuum, "wc	20'H6	• 45	NA	NA		
Temperature, deg F	160	115	108	87		
PID Readings, ppmv	195	10	70	82	PID for GAC-1:	3,0
	Oth	Dan 2: /				
Well ID % Oper	Applied Vac.,	Total depth,	Measurements Stinger Depth,			
V-1 1/4	"Hg	feet bgs	feet bgs			
V-2 1/1	12		25.5°			
V-3 1/4	12		9			
MW-1 1/4	13		21.5			
MW-3 1/4	15		25.7			
MW-7 1/4	1,17		26			
mu 8 174	XA		15.4			
Signature:	Shel		Date:	2-2.0	7	

### 1156 Davis Street

# San Leandro, California Dual Phase Extraction and Air Stripper System



Sampling Information (monthly)						
Sample ID	Date & Time	Sample ID	Date & Time			
02111DPEAINF		02111AGAC1				
02111ASAEFF		02111AEFF				
02111ASYSINF		V-11/16/1				
Analyses Required: GRO, BT	EX, and MTBE					

Operation & Maintenance Notes  1) MW-8 Shortened Stinger BY 10' Re wjust							
1) /	11W-8	Shortered	Stinger	BY 112'	Re wordt		
					12-7-21		
<u></u>							
						<del></del>	
·						<del></del>	
						<u> </u>	
		<u>,</u>					

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method	
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015	
BTEX Monthly		02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B	
МТВЕ	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B	
	2			

Signature:

Date: 2-7-07



### ARCO FACILITY NO. 2111 1156 Davis Street San Leandro, California Groundwater Treatment System

Date: Onsite Time: Offsite Time:	2-2-0 0500 0030	7	<del>-</del> -	Techniciar Weather C Ambient T		CHILL Clun 45	-
System Status	Upon Arrival:	(A)	Operation	al 🔲	Non-operation	onal	
System Status	At Departure:	图	Operation	al	Non-operation		
Transfer Pump	);		Operation	al 🔲	Non-operation		
	Hour Meter Re	7	VA 548	<u> </u>	ľ	ater Characteris y Field Instrumen	
Effluent Flow T	otalizer Readin	ıg:	510		рН:		
No. of Carbon	Vessels:		· .	<del>_</del>	Temperature	:	
Lead Carbon V (psi):	essel Pressure	2		-			
Well ID	Hour Meter	Reading	Totalize	r Reading	Total Depth	Pump Depth	
MW-2	1800	7 .					
							·
	.1 (5)	<del>,</del>	pling Infor	mation			7
	ole ID	Date 8	& Time San		nple ID Date & Time		
02111DPEWIN				02111MW2	WINF		_
02111ASWINF 02111ASWEFF		· · · · · · · · · · · · · · · · · · ·	, ,				-
02111WGAC1							_ `
02111WEFF	-	<del></del>	· · · · · · · · · · · · · · · · · · ·				-
Lab Para	ameters	Sampling F	requency	Sample	Location	Analytical Method	_ 
GRO, BTEX, & 5-Oxys		Mon	thly	INF& EFF		EPA Method 8260E	3
Notes:	Mr. 1	1/					
Signature:	(IN)	<u> </u>		Date: _	グング	07	_

### 1156 Davis Street

San Leandro, California



# Dual Phase Extraction and Air Stripper System

Date: Onsite Time: Offsite Time: Equipment Ma	2 · 5 · 0 05 00 08 3 () anufacturer/Mo		PFD Air Flore			Clem 46	
		•	System Inf	ormation			
System Status Upon Arrival:			Operational	Non-Operational			
System Status	s Upon Depart	ure:	Operational	Non-Operational			
Electric Meter	Reading:	043	22	-	·		
Hour Meter Re	eading:	_178.	7	_			
Totalizer Read Air Stripper:	ding Prior to		•	PID Calibration Date: 2-5-07			
Totalizer Read Stripper:	ding After Air	3470	JO	-			
			Field Meas	Uramente			
Parar	meter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments	
Differential Pre	essure, "wc	1.	26		,		
Air Velocity, Fl	PM	1850	1771				
Pipe Diameter	, inches	3	4	4	3		
Air Flow Rate,	cfm			200			
Applied Vacuu	ım, "wc	19"HG	640	NA	NA		
Temperature,	deg F	159	111	106	82	·	
PID Readings,	ppmv	163	て	60	8-	PID for GAC-1: 🛠	
				Vieasurements			
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs	i		
V-1	1/4	12					
V-2		12					
V-3		13					
MW-1		13					
MW-3	/	16					
MW-7	(	14					
MUS		150	A				

#### ARCO FACILITY NO. 2111 1156 Davis Street

# San Leandro, California Groundwater Treatment System



Date: Onsite Time: Offsite Time:	2557 0500 0830		<del>-</del> 	Techniciar Weather C Ambient Te		CHIL	C N
System Status	Upon Arrival:	K	Operation	al 🔲	Non-operation	onal	
System Status	At Departure:	Ø	Operation	al 📗	Non-operation	onal	
Transfer Pump	<b>)</b> ;	凶	Operation	al 🔲	Non-operation	onal	
Transfer Pump	Hour Meter R	eading:	NA		Effluent W	ater Charact	eristics
Effluent Flow 1	Totalizer Readir	ng: 3.	3400	2	(Quarterly b	y Field Instrur	nent) G.I
No. of Carbon	Vessels:	7	•		Temperature	,•	13,00
Lead Carbon \ (psi):	essel Pressure	7		-		·	0,00
Well ID	Hour Meter	Reading	Totalize	r Reading	Total Depth	Pump Depth	
MW-2		······································	210	70	, , , , , , , , , , , , , , , , , , ,	, amp Deptit	
		Sam	pling Info	mation		<del></del>	
Sami	ole ID	Date 8	k Time	Sam	iple ID	Date & Ti	me
02111DPEWIN	lF	2507	0630	02111MW2	WINF	2507 01	627
02111ASWINF			0620				
02111ASWEFF	-		0619				
02111WGAC1			0610				
02111WEFF		/	0687	TBZII(	2507	0	657
Lab Para	ameters	Sampling F	requency	Sample	Location	Analytical Me	thod
GRO, BTE	K, & 5-Oxys	Mon	thly	INF	& EFF	EPA Method 8	260B
						•	
Notes:Turn At S Instri	mwz te Run 11 Totali	To Hull Fou I	nll.01 5 mins setucce	>unatu Then c Huns	in when Suplacte to 17500	ir Arrive * oil/e Sepse	e che
Signature:	/ long	he		Date:	2.50	07	

#### ARCO FACILITY NO. 2111 1156 Davis Street San Leandro, California



## Dual Phase Extraction and Air Stripper System

	Sam	pling Informa	ation (monthly)		*
Sample ID	Date &		Sample ID	Date 8	& Time
2111DPEAINF	2507	(75) 3	02111AGAC1	2507	754
2111ASAEFF		)	02111AEFF	7301	0545
02111ASYSINF		0549		<del>-  /</del>	UJAJ
	DIEA, and WIBE				
Analyses Required: GRO,		<u> </u>	tongnes N		
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Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B

Signature:

Date: 2-5-05

# Atlantic Richfield ompany

A BP affiliated company

## **Chain of Custody Record**

rniect	Name	

ARCO 2111 BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

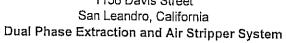
Requested Due Date (mm/dd/yy):

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On-site Time: 0500	Temp: 45	
Off-site Time: 0830	Temp: 48	
Sky Conditions:		
Meteorological Events:		
Wind Speed:	Direction:	•

Lab	Name: TestAmerica						BP/AR Encility No		211	1					-			16.								
Add	ress: 885 Jarvis Drive					Ħ					6 D	da Ctar	-4 0						ıltant/				Stratus Environ			
Mor	gan Hill, CA 95937					Н		iuicss	•	113	o Dav	as Suc	et, St	ın Lea	naro			Addre	ess:				on Park Drive,	<u>Suite 550</u>		
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#### ARCO FACILITY NO. 2111

1156 Davis Street San Leandro, California





Onsite Time:	00	min, RHE Hor Flue	Technician: Weather Condi Ambient Temp Pill What	erature:	CHILL Clarks 45
		System In	formation		
System Status Upon Ar	rival:	Operational		Non-Operati	ional 🔯
System Status Upon Departure:  Electric Meter Reading: 107		Operational	四	ional	
Hour Meter Reading:	42	3.9	_		
Totalizer Reading Prior Air Stripper:	to 9381	47	– PID Calibration –	Date: <u>2</u>	.20.07
Totalizer Reading After Stripper:	Air 1267	30	_		
		Field Meas	uremente	7.781	
Parameter	Influent (after blower, 2111DPEAINF)	Air Stringer	Suctom	Stack Air Flow (2111AEFF)	Comments
Differential Pressure, "v	vc ·	15.42	<del> </del>	(**************************************	
Air Velocity, FPM	1305	1960			
Pipe Diameter, inches	3	4	4	3	
Air Flow Rate, cfm		25"+20	200	<u> </u>	
Applied Vacuum, "wc	22"HU	.45 "zo	NA	NA	
Temperature, deg F	158	113	1017		
PID Readings, ppmv	120	18	50	X	PID for GAC-1: 发
	Otl	 	Measurements		
Well ID % Ope	Applied Vac				Athell
V-1 105		ieer ngs	ieer ngs		~// K()
V-2 \ \	14				311
V-3	15				1/1/1
MW-1	16				
MW-3	18		2015"		4"
MW-7	17			-	/z"
mus )	1 14				
Signature:	a phul		Date:	2-20	7-07

#### ARCO FACILITY NO. 2111

#### 1156 Davis Street

San Leandro, California

Dual Phase Extraction and Air Stripper System



Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF		02111AGAC1	
02111ASAEFF	•	02111AEFF	
02111ASYSINF			
Analyses Required: GRO, BT			

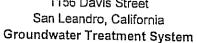
Operation & Maintenance Notes
System was off Trunsed off Last week- Transfer  Promp Funtone - Oil-water Separatus Promp Tropped over Los
Pump Fullone - Oil-water Sederatus Prant Tundal men
Donly 5 Amps on Trans Dung -
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hand 24 PSI. AT FILTURE
$\mathcal{D}\mathcal{O}$
VMX0303KA1-21 Model
(7/8/25 Senne)

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	_ Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	·		

Signature:

Date: 2-20-07

### ARCO FACILITY NO. 2111 1156 Davis Street





Date: Onsite Time: Offsite Time:	2.20. 0630 0900		- - -	Techniciar Weather C Ambient Te		CHILL Clouds 50
System Status System Status Transfer Pump	At Departure:		Operation Operation	nal	Non-operation	onal
Effluent Flow T	Hour Meter Re otalizer Readin Vessels: 'essel Pressure	g: [:	NA 2779 2	10	1	ater Characteristics y Field Instrument)
Well ID	Hour Meter	Reading	Totaliza	er Reading	Total Depth	Pump Depth
MW-2		·	210			
Samp	ole ID	Sam Date 8	pling Info	<del></del>	rple ID	Date & Time
02111DPEWIN 02111ASWINF 02111ASWEFF		-		02111MW2		Date & Tille
02111WGAC1 02111WEFF						
Lab Para	ameters	Sampling F	requency	Sample	Location	Analytical Method
GRO, BTEX	ζ, & 5-Oxys	Mon	thly		& EFF	EPA Method 8260B
Notes: Signature:	Jan 1/h			Date:	2-20	-07

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CHICL 2111 Avro SAN Loudro	
715 onsite stopped to see it Running NO	
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Restant system,	(
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## Atlantic Richfield Company

## **Chain of Custody Record**

Project Name: ARCO 2111
BP BU/AR Region/Enfos Segment:

0.2111

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency: RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

24 HR TAT EFF

On-site Time: 1983 Temp: 45

Off-site Time: 1983 Temp: 48

Sky Conditions:

Meteorological Events:

Wind Speed: Direction:

	Ivanic, restantities				_	BP/AR Facility No.: 2111 Consultant/Contractor: Stratus Environmental, Inc.															
	ress: 885 Jarvis Drive					BP/AR Facility A	/AR Facility Address: 1156 Davis Street, San Leandro										3330 Cameron Park Drive, Suite 550				
Mor	gan Hill, CA 95937					Site Lat/Long:		71111						Add				Park, CA 95682	110 550		
	PM: Lisa Race					California Global	ID N	D.;	T06	600101	764			Cons	mltant/C		actor Proj				
Tele	/Fax: 408-782-8156 408-782-630	08 (fax)				Enfos Project No.	:		GO	C28-0(	)23	*	<u>,</u>				ctor PM:		ncon.		
BP/A	AR PM Contact: Paul Supple		···			Provision or OOC	(circ	le one)		1	Provision	n			Tele/Fax: (530) 676-6000 / (530) 676-6005					····	
Addı	ress: 2010 Crow Canyon Place, Sui	te 150				Phase/WBS:										(000) 410 0001 (000) 010 0000					
•	San Ramon, CA					Sub Phase/Task:													with EDF		
Tele/	/Fax: 925-275-3506			··		Cost Element: 01-Contractor labor								E-mail EDD To: cjewitt@stratusinc.net							
Lab	Bottle Order No:			M	atrix										Invoice to: Atlantic Richfield Co.						
Item No.	Sample Description	Time	Date	Soil/Solid Water/Liquid	Air	Laboratory No.	Laboratory No. Containing to the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of th						14 177		atysis			Stanford 24 HR THY Sample Poin Con	ON AI	I HIW VEFF and	
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19 February, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQB0114

Enclosed are the results of analyses for samples received by the laboratory on 02/05/07 11:45. 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: ARCO #2111, San Leandro, CA MQB0114
3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0023 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 02/19/07 11:08

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEWINF	MQB0114-01	Water	02/05/07 06:30	02/05/07 11:45
02111ASWINF	MQB0114-02	Water	02/05/07 06:20	02/05/07 11:45
02111ASWEFF	MQB0114-03	Water	02/05/07 06:15	02/05/07 11:45
02111WGAC1	MQB0114-04	Water	02/05/07 06:10	02/05/07 11:45
02111WEFF	MQB0114-05	Water	02/05/07 06:05	02/05/07 11:45
02111MW2WINF	MQB0114-06	Water	02/05/07 06:27	02/05/07 11:45
TB21112507	MQB0114-07	Water	02/05/07 06:51	02/05/07 11:45

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0114 Reported: 02/19/07 11:08

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
02111DPEWINF (MQB0114-01) Water	Sampled: 02/0	5/07 06:30	Received	1: 02/05/0	7 11:45	•			
Gasoline Range Organics (C4-C12)	1300	500	ug/l	10	7B14027	02/14/07	02/15/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4	110 %	60-145		rr	,,	11	D		
02111ASWINF (MQB0114-02) Water	Sampled: 02/05	/07 06:20 F	Received:	02/05/07	11:45				
Gasoline Range Organics (C4-C12)	1400	500	นย/ไ	10	7B14027	02/14/07	02/15/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		112%	60-	145	II	"	ır	11	
02111ASWEFF (MQB0114-03) Water	Sampled: 02/05	/07 06:15 1	Received:	02/05/07	11:45				
Gasoline Range Organics (C4-C12)	320	50	ug/l	1	7B14027	02/14/07	02/15/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		115%	60-	145	If	"	и	tt	
02111WGAC1 (MQB0114-04) Water 5	Sampled: 02/05/	07 06:10 R	eccived:	02/05/07 1	1:45				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7B14027	02/14/07	02/15/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		111%	60-	145	0	IF	11	#	
02111WEFF (MQB0114-05) Water Sa	mpled: 02/05/07	06:05 Rec	eived: 02	/05/07 11:	:45				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7B06002	02/06/07	02/06/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		102 %	60-	145	п	11	n	H	China Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Caracteria Carac
02111MW2WINF (MQB0114-06) Water	Sampled: 02/	05/07 06:27	Receive	ed: 02/05/0	07 11:45				
Gasoline Range Organics (C4-C12)	1900	500	ug/l	01	7B14027	02/14/07	02/15/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		110 %	60-	145	11	11	11	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0114 Reported: 02/19/07 11:08

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

					-				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEWINF (MQB0114-01) Water	Sampled: 02/0	5/07 06:30	Received	: 02/05/0	7 11:45				
tert-Amyl methyl ether	7.1	5.0	ug/l	10	7B14027	02/14/07	02/15/07	EPA 8260B	
Benzene	16	5.0	14	0	0	14	U	q	
tert-Butyl alcohol	1200	200	I+	0	0	P	n	n n	
Di-isopropyl ether	ND	5.0	11	ıt	D	н	16	0	
Ethyl tert-butyl ether	ND	5.0	*1	It	11	н	It	n	
Ethylbenzene	32	5.0	ti	ц	H	Ħ	II	H	
Methyl tert-butyl ether	1400	5.0	ti	п	R	a	Ħ	H	
Toluene	ND	5.0	U	"	н	н	#1	H	
Xylenes (total)	18	5.0	0	n	11	u	11	H	
Surrogate: 1,2-Dichloroethane-d4		110%	60-1	45	n	n	ıı	rr	
Surrogate: 4-Bromofluorobenzene		92 %	60-1.	20	n	n	ıı .	"	
Surrogate: Dibromofluoromethane		105 %	75-1	30	"	n	н	"	
Surrogate: Toluene-d8		99 %	70-1	30	ıı .	и	п	u	
02111ASWINF (MQB0114-02) Water	Sampled: 02/05/	07 06:20 1	Received: (	02/05/07	11:45				
tert-Amyl methyl ether	7.5	5.0	ug/l	10	7B14027	02/14/07	02/15/07	EPA 8260B	
Benzene	25	5.0	17	0	0	H	u	R	
tert-Butyl alcohol	1700	200	H	0	0	6	U	R	
Di-isopropyl ether	ND	5.0	l†	a a	ø	17	U	Iŧ	
Ethyl tert-butyl ether	ND	5.0	14	0	0	H	u	R	
Ethylbenzene	15	5.0	H	17	U	11	U	It	
Methyl tert-butyl ether	1600	5.0	14	u	U	11	II .	H	
Toluene	ND	5.0	H	19	0	19	U	R	
Xylenes (total)	7.9	5.0	lt .	H	U	It .	D	It	
Surrogate: 1,2-Dichloroethane-d4		112%	60-1	45	n	"	"	11	
Surrogate: 4-Bromofluorobenzene		92 %	60-1	20	n	"	"	"	
Surrogate: Dibromofluoromethane		102 %	75-1	30	#	n	"	н	
Surrogate: Toluene-d8		98 %	70-1	30	"	**	*	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0114 Reported: 02/19/07 11:08

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWEFF (MQB0114-03) Water	Sampled: 02/05	/07 06:15	Received: 0	2/05/07	11:45				
tert-Amyl methyl ether	0.65	0.50	ug/l	1	7B14027	02/14/07	02/15/07	EPA 8260B	
Benzene	ND	0.50	0	**	41	н	19	и	
tert-Butyl alcohol	1600	20	U	**	tt	II .	19	н	
Di-isopropyl ether	ND	0.50	0	"	u u	ш	)†	н	
Ethyl tert-butyl ether	ND	0.50	11	Ħ	11	ıı	)f	п	
Ethylbenzene	ND	0.50	19	u	U	IJ	H	н	
Methyl tert-butyl ether	170	0.50	11	U	U	O	P	II .	
Toluene	ND	0.50	1+	11	1)	0	R	И	
Xylenes (total)	ND	0.50	lt			D	P	н	
Surrogate: 1,2-Dichloroethane-d4		115%	60-14	5	n	11	"	n	
Surrogate: 4-Bromofluorobenzene		88 %	60-12	0	"	"	"	,,	
Surrogate: Dibromofluoromethane		101%	75-13	0	u	21	n	tt .	
Surrogate: Toluene-d8		101 %	70-13	0	"	,,	"	n	
02111WGAC1 (MQB0114-04) Water	Sampled: 02/05/0	)7 06:10 F	Received: 02	/05/07 1	1:45				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7B14027	02/14/07	02/15/07	EPA 8260B	
Benzene	ND	0.50	И	e	n	U	н	и	
tert-Butyl alcohol	ND	20	li	H	n	11	И	н	
Di-isopropyl ether	ND	0.50	н	0	e	D	И	н	
Ethyl tert-butyl ether	ND	0.50	н	17	0	n	П	#	
Ethylbenzene	ND	0.50	н	J†	P†	19	11	n .	
Methyl tert-butyl ether	ND	0.50	н	н	)+	11	+1	#1	
Toluene	ND	0.50	н	н	н	It	ii.	Ħ	
Xylenes (total)	ND	0.50	r)	и	И	It	a a	H	
Surrogate: 1,2-Dichloroethane-d4		111 %	60-14	5	"	"	n	"	
Surrogate: 4-Bromofluorobenzene		88 %	60-12	0	n	"	n	n	
Surrogate: Dibromofluoromethane		106 %	75-13	0	"	"	n .	ŧ	
Surrogate: Toluene-d8		98 %	70-13	0	"	tt	n	11	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0114 Reported: 02/19/07 11:08

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111WEFF (MQB0114-05) Water Sa	ampled: 02/05/01	7 06:05 Rec	cived: 02/	05/07 11:	45				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7B06002	02/06/07	02/06/07	EPA 8260B	
Benzene	ND	0.50	u	Ħ	н	**	P	U	
tert-Butyl alcohol	ND	20	n	ti.	н	*1	P	II .	
Di-isopropyl ether	ND	0.50	tt.	0	И	н	и	0	
Ethyl tert-butyl ether	ND	0.50	rt .	0	þi	н	П	ii	
Ethylbenzene	ND	0.50	If	U	Ħ	Ħ	11	ij	
Methyl tert-butyl ether	ND	0.50	u	0	h	u	п	0	
Toluene	ND	0.50	н	0	**	н	11	IJ	
Xylenes (total)	ND	0.50		D.	11	0	11	U	
Surrogate: 1,2-Dichloroethane-d4		102 %	60-1	45	11	н	Ħ	n	
Surrogate: 4-Bromofluorobenzene		94 %	60-1	20	"	"	11	"	
Surrogate: Dibromofluoromethane		98 %	75-1.	30	n .	n	11	#	
Surrogate: Toluene-d8		100 %	70-1	30	11	n	"	#	
02111MW2WINF (MQB0114-06) Wate	r Sampled: 02	/05/07 06:27	Received	d: 02/05/0	7 11:45				
tert-Amyl methyl ether	9.0	5.0	ug/l	10	7B14027	02/14/07	02/15/07	EPA 8260B	
Benzene	62	5.0	**	#	I+	#	14	н	
tert-Butyl alcohol	1600	200	U	n	II	Ħ	ц	H	
Di-isopropyl ether	ND	5.0	H	u	И	п	)I	H	
Ethyl tert-butyl ether	ND	5.0	n	u	п	O O	ji	*	
Ethylbenzene	36	5.0	I†	u	n	II .	11	"	
Methyl tert-butyl ether	1900	5.0	I†	0	н	0	ti	et e	
Toluene	ND	5.0	И	H	Ħ	0	ti	ti	
Xylenes (total)	9.9	5.0	11	It	11	11	*1	H	
Surrogate: 1,2-Dichloroethane-d4		110%	60-1-	45	"	"	11	11	
Surrogate: 4-Bromofluorobenzene		94 %	60-1.	20	"	0	Jr.	n	
Surrogate: Dibromofluoromethane		101 %	75-1.	30	11	U	If	11	
Surrogate: Toluene-d8		98 %	70-1.	30	"	,,	"	11	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0114 Reported: 02/19/07 11:08

## 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 7B06002 - EPA 5030B P/T / LUFT	Γ GCMS			······································						
Blank (7B06002-BLK1)				Prepared a	& Analyz	ed: 02/06/	07			
Gasoline Range Organics (C4-C12)	ND	50	п <b>Б</b> /	· · · · · · · · · · · · · · · · · · ·						
Surrogate: 1,2-Dichloroethane-d4	2.47		11	2.50		99	60-145	***************************************	***************************************	······································
Laboratory Control Sample (7B06002-BS2)				Prepared o	& Analyze	ed: 02/06/	07			
Gasoline Range Organics (C4-C12)	450	50	ug/l	500		90	75-140	•		
Surrogate: 1,2-Dichloroethane-d4	2.04		"	2.50		82	60-145		***************************************	
Laboratory Control Sample Dup (7B06002-B	SD2)			Prepared a	& Analyz	ed: 02/06/	07			
Gasoline Range Organics (C4-C12)	450	50	ug/l	500		90	75-140	0	20	
Surrogate: 1,2-Dichloroethane-d4	2.01		п	2.50		80	60-145			
Batch 7B14027 - EPA 5030B P/T / LUFT	GCMS									
Blank (7B14027-BLK1)				Prepared:	02/14/07	Analyzed	I: 02/15/07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l		******************	***************************************				•
Surrogate: 1,2-Dichloroethane-d4	2.43		н	2.50		97	60-145			
Laboratory Control Sample (7B14027-BS2)				Prepared:	02/14/07	Analyzed	1: 02/15/07			
Gasoline Range Organics (C4-C12)	544	50	ug/l	500		109	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.42		n	2.50		97	60-145			
Laboratory Control Sample Dup (7B14027-B	SD2)			Prepared:	02/14/07	Analyzed	1: 02/15/07			
Gasoline Range Organics (C4-C12)	523	50	nG\J	500		105	75-140	4	20	
Surrogate: 1,2-Dichloroethane-d4	2.43		11	2,50		97	60-145			





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Project: ARCO #2111, San Leandro, CA

Spike

Level

Source

Result

%REC

Project Number: G0C28-0023

MQB0114 Reported: 02/19/07 11:08

RPD

Limit

Notes

%REC

Limits

RPD

Cameron Park CA, 95682

Analyte

Project Manager: Jay Johnson

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

Units

Reporting

Limit

Result

2.63

2.71

Blank (7B06002-BLK1)				Prepared & Ar	nalyzed: 02/06/	07
tert-Amyl methyl ether	ND	0.50	ug/l	•		
Benzene	ND	0.50	11			
tert-Butyl alcohol	ND	20	Ħ			
Di-isopropyl ether	ND	0.50	U			
Ethyl tert-butyl ether	ND	0.50	II			
Ethylbenzene	ND	0.50	U			
Methyl tert-butyl ether	ND	0.50	n			
Toluene	ND	0.50	B			
Xylenes (total)	ND	0.50	11			
Surrogate: 1,2-Dichloroethane-d4	2.47		tt	2.50	99	60-145
Surrogate: 4-Bromofluorobenzene	2.47		"	2.50	99	60-120
Surrogate: Dibromofluoromethane	2.57		"	2.50	103	75-130
Surrogate: Toluene-d8	2.55		"	2.50	102	70-130
Laboratory Control Sample (7B06002-	BS1)			Prepared & An	alyzed: 02/06/	07
tert-Amyl methyl ether	11.0	0,50	ug/l	10.0	110	65-135
Benzene	10.6	0.50	н	10.0	106	70-125
tert-Butyl alcohol	189	20	It	200	94	60-135
Di-isopropyl ether	9.82	0.50	It	10.0	98	70-130
Ethyl tert-butyl ether	10.3	0.50	It	10.0	103	65-130
Ethylbenzene	10,2	0.50	11	10.0	102	70-130
Methyl tert-butyl ether	10.2	0.50	10	10.0	102	50-140
Toluene	10.5	0.50	16	10.0	105	70-120
Xylenes (total)	31.3	0.50	If	30.0	104	80-125
Surrogate: 1,2-Dichloroethane-d4	2.48	· · · · · · · · · · · · · · · · · · ·	"	2.50	99	60-145
Surrogate: 4-Bromofluorobenzene	2.64		**	2.50	106	60-120

2.50

2.50

Surrogate: Dibromofluoromethane

Surrogate: Toluene-d8

75-130

70-130

105





Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0114 Reported: 02/19/07 11:08

RPD

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7B06002 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7B06002-MS1)	Source: MQ	B0113-04		Prepared	& Analyz	ed: 02/06/	07			
tert-Amyl methyl ether	11.4	0.50	ug/l	10.0	ND	114	65-135			
Benzene	10.7	0.50	"	10.0	ND	107	70-125			
tert-Butyl alcohol	206	20	11	200	ND	103	60-135			
Di-isopropyl ether	10.3	0.50	*1	10.0	ND	103	70-130			
Ethyl tert-butyl ether	10.8	0.50	**	10.0	ND	108	65-130			
Ethylbenzene	10.3	0.50	tt	10.0	ND	103	70-130			
Methyl tert-butyl ether	10.7	0.50	(I	10.0	ND	107	50-140			
Toluene	10,2	0.50	ŋ	10.0	ND	102	70-120			
Xylenes (total)	31.6	0.50	tt	30.0	ND	105	80-125			
Surrogate: 1,2-Dichloroethane-d4	2.52		11	2.50		101	60-145	——————————————————————————————————————	***************************************	***************************************
Surrogate: 4-Bromofluorobenzene	2.56		'n	2.50		102	60-120			
Surrogate: Dibromofluoromethane	2.66		,,	2.50		106	75-130			
Surrogate: Toluene-d8	2.55		n	2.50		102	70-130			
Matrix Spike Dup (7B06002-MSD1)	Source: MQ	B0113-04		Prepared .	& Analyze	ed: 02/06/	07			
tert-Amyl methyl ether	11.4	0,50	ug/l	10.0	ND	114	65-135	0	25	
Benzene	10.7	0.50	U	10.0	ND	107	70-125	0	15	
ert-Butyl alcohol	206	20	U	200	ND	103	60-135	0	35	
Di-isopropyl ether	10.4	0.50	U	10.0	ND	104	70-130	1	35	
Ethyl tert-butyl ether	10.8	0.50	D	10.0	ND	108	65-130	0	35	
Ethylbenzene	10.3	0.50	It	10.0	ND	103	70-130	0	15	
Methyl tert-butyl ether	10.6	0.50	н	10.0	ND	106	50-140	0.9	25	
Toluene	10.4	0.50	μ	10.0	ND	104	70-120	2	15	
Xylenes (total)	31.6	0.50	и	30.0	ND	105	80-125	0	15	
Surrogate: 1,2-Dichloroethane-d4	2.58		If	2.50		103	60-145	**************	***************************************	
Surrogate: 4-Bromofluorobenzene	2,52		"	2.50		101	60-120			
Surrogate: Dibromofluoromethane	2.72		#	2.50		109	75-130			
Surrogate: Toluene-d8	2.63		"	2.50		105	70-130			





Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

MQB0114 Reported: 02/19/07 11:08

RPD

Project Number: G0C28-0023
Project Manager: Jay Johnson

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

Reporting

2.60

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7B14027 - EPA 5030B P/T /	EPA 8260B									
Blank (7B14027-BLK1)				Prepared:	02/14/07	Analyzed	: 02/15/07			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	lf .							
tert-Butyl alcohol	ND	20	н							
Di-isopropyl ether	ND	0.50	11							
Ethyl tert-butyl ether	ND	0.50	Ħ							
Ethylbenzene	ND	0.50	*1							
Methyl tert-butyl ether	ND	0.50	Ħ							
Toluene	ND	0.50	*1							
Xylenes (total)	ND	0.50	ŧı							
Surrogate: 1,2-Dichloroethane-d4	2.43		11	2.50		97	60-145			
Surrogate: 4-Bromofluorobenzene	2.35		"	2.50		94	60-120			
Surrogate: Dibromofluoromethane	2.47		"	2.50		99	75-130			
Surrogate: Toluene-d8	2.51		11	2.50		100	70-130			
Laboratory Control Sample (7B14027-	·BS1)			Prepared:	02/14/07	Analyzed	: 02/15/07			
tert-Amyl methyl ether	11.2	0.50	ug/l	10.0		112	65-135	***************************************	****	***************************************
Benzene	9.73	0.50	19	10.0		97	70-125			
tert-Butyl alcohol	170	20	*	200		85	60-135			
Di-isopropyl ether	10.7	0.50	и	10.0		107	70-130			
Ethyl tert-butyl ether	10.8	0.50	н	10.0		108	65-130			
Ethylbenzene	9.71	0.50	H	10.0		97	70-130			
Methyl tert-butyl ether	10.9	0.50	"	10.0		109	50-140			
Toluene	9.77	0.50	н	10.0		98	70-120			
Xylenes (total)	30.0	0.50	"	30.0		100	80-125			
Surrogate: 1,2-Dichloroethane-d4	2.46	<del></del>	"	2.50		98	60-145			
Surrogate: 4-Bromofluorobenzene	2.46		11	2.50		98	60-120			
Surrogate: Dibromofluoromethane	2.56		11	2.50		102	75-130			
•										

2.50

Surrogate: Toluene-d8

70-130

104





Project: ARCO #2111, San Leandro, CA

Spike

Source

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0114 Reported: 02/19/07 11:08

RPD

%REC

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7B14027 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7B14027-MS1)	Source: MQ	QB0115-03		Prepared:	02/14/07	Analyzed	: 02/15/07			
tert-Amyl methyl ether	13.9	0.50	ug/l	10.0	ND	139	65-135			
Benzene	12.0	0.50	"	10.0	ND	120	70-125			
tert-Butyl alcohol	221	20	н	200	ND	110	60-135			
Di-isopropyl ether	13.2	0.50	11	10,0	ND	132	70-130			LN
Ethyl tert-butyl ether	13.6	0.50	*	10.0	ND	136	65-130			LN
Ethylbenzene	11.9	0.50	Ħ	10.0	ND	119	70-130			
Methyl tert-butyl ether	18,6	0.50	Ħ	0.01	4.5	141	50-140			LN
Toluene	11.7	0.50	п	10.0	ND	117	70-120			
Xylenes (total)	36.6	0.50	u	30.0	ND	122	80-125			
Surrogate: 1,2-Dichloroethane-d4	2.59		л	2.50		104	60-145			
Surrogate: 4-Bromofluorobenzene	2.39		"	2.50		96	60-120			
Surrogate: Dibromofluoromethane	2.53		#	2.50		101	75-130			
Surrogate: Toluene-d8	2.53		**	2.50		101	70-130			
Matrix Spike Dup (7B14027-MSD1)	Source: MQ	B0115-03		Prepared:	02/14/07	Analyzed	: 02/15/07			
tert-Amyl methyl ether	12.4	0.50	սք/(	10.0	ND	124	65-135	11	25	
Benzene	10.6	0.50	H	10,0	ND	106	70-125	12	15	
tert-Butyl alcohol	194	20	"	200	ND	97	60-135	13	35	
Di-isopropyl ether	11.9	0.50	н	10.0	ND	119	70-130	10	35	
Ethyl tert-butyl ether	12.1	0.50	"	10.0	ND	121	65-130	12	35	
Ethylbenzene	10.6	0.50	**	10.0	ND	106	70-130	12	15	
Methyl tert-butyl ether	16.7	0.50	*1	10.0	4.5	122	50-140	11	25	
Toluene	10.7	0.50	#1	10.0	ND	107	70-120	9	15	
Xylenes (total)	32.8	0.50	#1	30.0	ND	109	80-125	11	15	
Surrogate: 1,2-Dichloroethane-d4	2.53		11	2.50		101	60-145			
Surrogate: 4-Bromofluorobenzene	2.48		ır	2,50		99	60-120			
Surrogate: Dibromofluoromethane	2.59		"	2.50		104	75-130			
Surrogate: Toluene-d8	2.53		"	2.50		101	70-130			





Relative Percent Difference

RPD

Stratus Environmental Inc. [Arco]
Project: ARCO #2111, San Leandro, CA
MQB0114
3330 Cameron Park Dr., Suite 550
Project Number: G0C28-0023
Cameron Park CA, 95682
Project Manager: Jay Johnson
02/19/07 11:08

#### Notes and Definitions

PV	Hydrocarbon result partly due to individ. peak(s) in quant. range
LM	MS and/or MSD above acceptance limits. See Blank Spike(LCS).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified $$
NR	Not Reported
dгу	Sample results reported on a dry weight basis

_	£ .	1
Page_	of [	<u></u>

Atlantic Richfield Company
Company
A BP affiliated company

## **Chain of Custody Record**

Project Name: ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

ZU HR TAT EFF

· · · · · · · · · · · · · · · · · · ·	
On-site Time: 7501	Temp: 45
Off-site Time: 19830	Temp: 45
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: TestAmerica	BP/AR Facility No.: 2111	Consultant/Contractor: Stratus Environmental, Inc.		
Address: 885 Jarvis Drive	BP/AR Facility Address: 1156 Davis Street, San Leandro	Address: 3330 Cameron Park Drive, Suite 550		
Morgan Hill, CA 95937	Site Lat/Long:	Cameron Park, CA 95682		
Lab PM: Lisa Race	California Global ID No.: T0600101764	Consultant/Contractor Project No.:		
Tele/Fax: 408-782-8156 408-782-6308 (fax)	Enfos Project No.: G0C28-0023	Consultant/Contractor PM: Jay Johnson		
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one) Provision	Tele/Fax: (530) 676-6000 / (530) 676-6005		
Address: 2010 Crow Canyon Place, Suite 150	·/	Report Type & QC Level: Level 1 with EDF		
San Ramon, CA		E-mail EDD To: cjewitt@stratusinc.net		
Tele/Fax: 925-275-3506	Cost Element: 01-Contractor labor	Invoice to: Atlantic Richfield Co.		
Lab Bottle Order No: Matri		d Analysis Stand on All other		
Time Soil/Solid Water/Liquid		d Analysis  Stanford on all And  24 HR THT OZIIWEFF  Sample Point Lat/Long and  Comments		
1 17211 DPE WINF 0650 2507 X		1 5 oxy 5		
2 MIN ASWINF DUZE \ X	1 2 6 X XXX	TBA ETBE		
3 OZIVI ASWEFF OLDIS / K	1 1 1 X X X X X X X X X X X X X X X X X	MYBE TAME		
A BZIII W GAC ! DUID ( )	04 6 X HXX	Dipe		
8 02111 W EFF 0600 / 14	0 X X X X X X X X X X X X X X X X X X X			
6 1/2 Wmw 2 W INF 10027 \ \	09 6 Y NXX			
7				
8 TBZ11 2507 6651 2507 K	b7 2 X	Hold		
9				
10				
Sampler's Name: Chris Hill	Reifiquished By / Affiliation Date Time	Accepted By / Affiliation Date Time		
Sampler's Company: 5trutus	1 /m/1 hd 54 nate 5 2507 1149	kinstano 2/1/67 1145		
Shipment Date: 2.5.07				
Shipment Method: Struft				
Shipment Tracking No:				
ecial Instructions: Please cc results to rmiller	@broadbentinc.com			
	48			
Custody Seals In Place: Yes / No ,   Temp Bla	nk/Yes/No   Cooler Temp on Receipt: 4/12 °FC   Trip Blank/Yes/	No MS/MSD Sample Submitted: Yes / 🛪 🦻		

### TEST AMERICA SAMDI E DECEIDT LOG

CLIENT NAME: Shalks  REC. BY (PRINT) EB  WORKORDER: MOBOIIL  CIRCLE THE APPROPRIATE RESPONSE			DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	2-5-6 1144 2-5-0		-		For Regul DRINKING WASTE W	
	*	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION	PRESER	pН	SAMPLE		REMARKS:
Custody Seal(s)	Present / Alisent				******		MATRIX	SAMPLED	CONDITION (ETC.)
	Intact / Broken*								
2. Chain-of-Custody	Present / Absent*					<del></del>			
3. Traffic Reports or				<del>                                     </del>					
Packing List:	Present / Absent		······································						
4. Airbill:	Airbill / Sticker								
	Present / Absent			<del></del>					
5. Airbill #;			<del></del>					//	
6. Sample Labels:	Present / Absent						<del>- e"/</del>	/	
7. Sample IDs:	Listed / Not Listed		······································				w/		
	on Chain-of-Custody					/	/		
8. Sample Condition:	Intact / Broken*/				100	4			
	Leaking*					-			
9. Does information on	chain-of-custody,				-/-				
traffic reports and sa	imple labels				$\leftarrow$				
agree?	Yes No*		<del></del>	5 / l	<u> </u>				
0. Sample received within				-1-	<del> -</del>				
hold time?	Yes / No*			_/					
<ol> <li>Adequate sample volur</li> </ol>	ne			<u> </u>					
received?	Yes (No*		<del></del>						
. Proper preservatives u	sed? Yes No*								
3. Trip Blank / Temp Blan	k Received?								
(circle which, if yes)	Yes No*								
. Read Temp:	4. BC				·				
Corrected Temp:	4.86		/						
Is corrected temp 4 +/-:	2°C? (Yes/I No**	/							
ceplance range for samples requ	ilting thermal pres )	<del>-/-</del>						_	
Exception (if any): META	LS / DEF ON ICE	<del>/</del>							
or Problem COC		(							
CHECKE THE PERSON NAMED OF THE PERSON	THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAME		ED, CONTACT PROJECT						

Tiaces Rev 7 (07/19/05)



19 February, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQB0112

Enclosed are the results of analyses for samples received by the laboratory on 02/05/07 11:45. 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: ARCO #2111, San Leandro, CA	MQB0112
3330 Cameron Park Dr., Suite 550	Project Number: G0C28-0023	Reported:
Cameron Park CA, 95682	Project Manager: Jay Johnson	02/19/07 10:34

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory iD	Matrix	Date Sampled	Date Received	
02111DPEAINF	MQB0112-01	Vapor	02/05/07 05:53	02/05/07 11:45	
02111ASAEFF	MQB0112-02	Vapor	02/05/07 05:51	02/05/07 11:45	
02111ASYSINF	MQB0112-03	Vapor	02/05/07 05:49	02/05/07 11:45	
02111AGAC1	MQB0112-04	Vapor	02/05/07 05:47	02/05/07 11:45	
02111AEFF	MQB0112-05	Vapor	02/05/07 05:45	02/05/07 11:45	

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0112 Reported: 02/19/07 10:34

#### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

A1.4-	<b>.</b>	Reporting			-	_			
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEAINF (MQB0112-01) Vapor	Sampled: 02/0	5/07 05:53	Received	: 02/05/07	11:45				
Gasoline Range Organics (C4-C12)	1000	250	mg/m³ Air	25	7B06003	02/06/07	02/06/07 13:24	EPA 8015B/8021B	
Benzene	24	2.5	II .	11	U	0	11	н	P
Toluene	ND	2.5	ti .	ц	п	11	*1	"	
Ethylbenzene	11	2.5	17	п	u	IP .	ti	н	
Xylenes (total)	6.4	5.0	17	И	U	H	a	н	Pi
Methyl tert-butyl ether	51	12		¥I		P	u 	н	
Surrogate: a,a,a-Trifluorotoluene		94 %	65-1	140	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109%	70-7	125	"	u	u	п	
Gasoline Range Organics (C4-C12)	290	61	ppmv	25	R	ņ	0	U	
Benzene	7.4	0.78	н	U	и	*1	0	u u	P
Toluene	ND	0.66	и	11	И	*1	4	U	
Ethylbenzene	2.4	0.58	н	u	И	n	H	U	
Xylenes (total)	1.5	1.2	*1	n	И	0	It	u	P
Methyl tert-butyl ether	14	3.5	а	19	#1	0	И	n	
Surrogate: a,a,a-Trifluorotoluene		95 %	65-1	140	11	u	n	"	
Surrogate: 4-Bromofluorobenzene		109 %	70-i	125	"	n	ır	rr .	
02111ASAEFF (MQB0112-02) Vapor	Sampled: 02/05/	07 05:51	Received:	02/05/07 1	11:45				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7B06003	02/06/07	02/06/07 12:14	EPA 8015B/8021B	
Benzene	ND	0.10	14	**	U	U	Ħ	It	
Toluene	ND	0.10	14	**	U	U	*1	н	
Ethylbenzene	ND	0.10	I+	Ħ	0	U	#1	It	
Xylenes (total)	ND	0.20	и	n	"	II .	†I	It	
Methyl tert-butyl ether	ND	0.50		n	U	U	н	19	
Surrogate: a,a,a-Trifluorotoluene		97 %	65-1	140	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	70-1	25	n	n	n .	#	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	41	U	n n	н	It	
Веплепе	ND	0.031	н	a	u	u u	11	If	
Toluene	ND	0.027	n	*1	II .	U	#1	и	
Ethylbenzene	ND	0.023	It	**	U	0	Ħ	И	
Xylenes (total)	ND	0.047	It	Ħ	Ŋ	0	Ħ	н	
Methyl tert-butyl ether	ND	0.14	н	Ħ	ŋ	0	H	H	
Surrogate: a,a,a-Trifluorotoluene		97 %	65-1	140	"	"	11	ır	
Surrogate: 4-Bromofluorobenzene		104%	70-1	25	"	"	11	11	
<u>.</u>									





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0112 Reported: 02/19/07 10:34

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

	<b>.</b>	Reporting	** 1.						
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111ASYSINF (MQB0112-03) Vapor	Sampled: 02/0	5/07 05:49	Received:	02/05/07	11:45				
Gasoline Range Organics (C4-C12)	400 5	50	mg/m³ Air	5	7B06003	02/06/07	02/06/07 12;44	EPA 8015B/8021B	
Benzene	10	0.50	н	16	tı	#	*1	U	P
Toluene	ND	0.50	11	Ħ	11	*1	†I	n	
Ethylbenzene	4.7	0.50	**	11	U	**	a	ft	
Xylenes (total)	2.9	1.0	n	¥f.	ti	u	11	H	P
Methyl tert-butyl ether	21	2.5	U	a	It	(1			
Surrogate: a,a,a-Trifluorotoluene		120 %	65- <i>1</i>	40	"	"	"	rr rr	
Surrogate: 4-Bromofluorobenzene		112%	70-1	25	11	н	#	rr rr	
Gasoline Range Organics (C4-C12)	110	12	ppmv	5	и	H	11	Ħ	
Benzene	3.2	0.16	17	0	и	19	11	11	P
Toluene	ND	0.13	17	U	н	n	H.	н	
Ethylbenzene	1.1	0.12	H	0	И	n	11	H	
Xylenes (total)	0.67	0.24	14	I)	И	1+	11	H	P
Methyl tert-butyl ether	5.7	0.69	l†	н	)I	17	It	I <del>t</del>	
Surrogate: a,a,a-Trifluorotoluene		120 %	65-1	40	"	"	"	rr .	
Surrogate: 4-Bromofluorobenzene		112 %	70-1	25	77	#	"	n	
02111AGAC1 (MQB0112-04) Vapor	Sampled: 02/05/6	07 05:47 F	Received: 02	2/05/07 11	1:45				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7B06003	02/06/07	02/06/07 11:44	EPA 8015B/8021B	
Benzene	ND	0.10	It	17	п	It	и	H	
Toluene	ND	0.10	IP	17	II .	1+	H	#	
Ethylbenzene	ND	0.10	III	"	II		It	11	
Xylenes (total)	ND	0.20	И	16	11	14	¥	Ħ	
Methyl tert-butyl ether	ND	0.50	H	Jt .	)	)†	)1	#	······································
Surrogate: a,a,a-Trifluorotoluene		100 %	65-1	40	"	**	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	70-1	25	If	n	n	***	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	н	11	н	11	tt	
Benzene	ND	0.031	**	Ħ	**	11	**	tt	
Toluene	ND	0.027	tı	Ħ	11	11	11	u	
Ethylbenzene	ND	0.023	**	#1	11	*1	н	a	
Xylenes (total)	ND	0.047	H	U	11	*1	11	II .	
Methyl tert-butyl ether	ND	0.14	U	Ħ	n	*1	11	U	
Surrogate: a,a,a-Trifluorotoluene		101 %	65-I	40	3)	11	"	n	
Surrogate: 4-Bromofluorobenzene		105 %	70-1		n	11	II .	#	
<u>.</u>									





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0112 Reported: 02/19/07 10:34

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111AEFF (MQB0112-05) Vapor	Sampled: 02/05/07 0	5:45 Red	eived: 02/0	05/07 11:4	15				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7B06003	02/06/07	02/06/07 11:14	EPA 8015B/8021B	
Benzene	ND	0.10	I†	Ħ	It	I#	ti	11	
Toluene	ND	0.10	н	ti .	и	16	0	u	
Ethylbenzene	ND	0.10	н	U	н	н	0	ı,	
Xylenes (total)	ND	0.20	11	U	н	н	0	u	
Methyl tert-butyl ether	ND	0.50	11	U	п	ji	U	IJ	
Surrogate: a,a,a-Trifluorotoluene		95 %	65-1	40	"	17	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	70-1	25	"	IT	n	n	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	**	11	4	0	n	
Benzene	ND	0.031	11	"	"	41	n	I†	
Toluene	ND	0.027	II .	I†	+1	n	17		
Ethylbenzene	ND	0.023	4	It	**	11	11	H.	
Xylenes (total)	ND	0.047	n	16	11	el	11	14	
Methyl tert-butyl ether	ND	0.14	0	Iŧ	ti	et	D	H	
Surrogate: a,a,a-Trifluorotoluene		96 %	65-1	40	"	11	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	70-1	25	11	n	"	. "	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQB0112 Reported: 02/19/07 10:34

# Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

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

Prepared & Analyzed: 02/06/07	Batch 7B06003 - EPA 5030B   P/T	] / EPA 8015B/80	21B						
Gasoline Range Organics (C4-C12)   ND   10   Implimit Air   Impl	Blank (7B06003-BLK1)				Prepared & Ar	nalyzed: 02/06/0	)7		
Benzene         ND         0.10 mg/m² Air           Benzene         ND         0.031 ppmv           Toluene         ND         0.10 mg/m² Air           Toluene         ND         0.027 ppmv           Ethylbenzene         ND         0.023 ppmv           Ethylbenzene         ND         0.023 ppmv           Xylenes (total)         ND         0.020 mg/m² Air           Xylenes (total)         ND         0.047 ppmv           Methyl tert-butyl ether         ND         0.050 mg/m² Air           Methyl tert-butyl ether         ND         0.01 mg/m² Air           Surrogate: a.a.a-Trifluoratoluene         7.81 mg/m² Air         8.00 98 65-140           Surrogate: -B-romafluorabenzene         7.72 mg/m² Air         8.00 96 70-125           Surrogate: -B-romafluorabenzene         1.31 mg/m² Air         8.00 96 70-125           Surrogate: -B-romafluorabenzene         1.32 mg/m² Air         8.00 96 70-125           Laboratory Control Sample (7B06003-BS1)         ppmv         1.12 96 70-125           Gasoline Range Organics (C4-C12)         43.5 10 mg/m² Air         950 92 90-150           Gasoline Range Organics (C4-C12)         12.3 2.4 ppmv         1.56 79 70-115           Benzene         0.28 000 000 mg/m² Air         0.00 000 mg/m² Air	Gasoline Range Organics (C4-C12)	ND	10		<del>-</del>	•		***************************************	
Benzene   ND   0.031   ppmv   Toluene   ND   0.027   ppmv   Toluene   ND   0.027   ppmv   Toluene   ND   0.028   ppmv   Toluene   ND   0.028   ppmv   Toluene   ND   0.028   ppmv   Toluene   ND   0.038   ppmv   Toluene   ND   0.039   ppmv   Toluene   ND   0.047   ppmv   Toluene   ND   0.047   ppmv   Toluene   ND   0.047   ppmv   Toluene   ND   0.047   ppmv   Toluene   Tolu	Gasoline Range Organics (C4-C12)	ND	2.4	ppmv					
Toluene ND 0.027 ppmv  Ethylbenzene ND 0.023 ppmv  Kylenes (total) ND 0.023 ppmv  Kylenes (total) ND 0.023 ppmv  Kylenes (total) ND 0.024 ppmv  Methyl tert-butyl ether ND 0.50 mg/m² Åir  Methyl tert-butyl ether ND 0.14 ppmv  Methyl tert-butyl ether ND 0.14 ppmv  Methyl tert-butyl ether ND 0.14 ppmv  Methyl tert-butyl ether ND 0.14 ppmv  Methyl tert-butyl ether ND 0.14 ppmv  Methyl tert-butyl ether ND 0.14 ppmv  Methyl tert-butyl ether ND 0.14 ppmv  Marrogate: a,aa-Trifluorotoluene 1.31 ppmv 1.31 98 65-140  Siurrogate: -Bronogliuorobenzene 1.08 ppm 1.12 96 70-125  Marrogate: -Bronogliuorobenzene 1.08 ppm 1.12 96 70-125  Marrogate: -Bronogliuorobenzene 1.08 ppm 1.12 96 70-125  Marrogate: -Bronogliuorobenzene 1.08 ppm 1.14 98 65-140  Siurrogate: -Bronogliuorobenzene 1.08 ppm 1.12 96 70-125  Marrogate: -Bronogliuorobenzene 1.08 ppm 1.12 96 70-125  Marrogate: -Bronogliuorobenzene 1.08 ppm 1.12 96 70-125  Marrogate: -Bronogliuorobenzene 1.08 0 mg/m² Åir 0.970 92 80-150  Marrogate: -Bronogliuorobenzene 1.08 0.003 ppmv 0.304 91 80-150  Toluene 3.39 0.10 mg/m² Åir 0.970 84 75-125  Methylbenzene 0.751 0.10 mg/m² Åir 0.940 80 75-135  Mylenes (total) 4.54 0.003 ppmv 0.217 80 75-135  Mylenes (total) 1.05 0.047 ppmv 1.25 84 75-125  Methylbenzene 0.751 0.10 mg/m² Åir 0.940 80 75-135  Mylenes (total) 1.05 0.047 ppmv 0.217 80 75-135  Mylenes (total) 1.05 0.047 ppmv 0.217 80 75-135  Methyl tert-butyl ether 0.255 0.14 ppmv 0.361 71 60-140  Methyl tert-butyl ether 0.257 0.14 ppmv 0.361 71 60-140  Methyl tert-butyl ether 0.257 0.14 ppmv 1.34 117 65-140  Methyl tert-butyl ether 0.257 0.14 ppmv 1.34 117 65-140  Methyl tert-butyl ether 0.257 0.14 ppmv 1.34 117 65-140  Methyl tert-butyl ether 0.257 0.14 ppmv 1.34 117 65-140  Methyl tert-butyl ether 0.257 0.14 ppmv 1.34 117 65-140  Methyl tert-butyl ether 0.257 0.14 ppmv 1.34 117 65-140	Benzene	ND	0.10	mg/m³ Air					
Toluene   ND   0.027   ppmv   Ethylbenzene   ND   0.10   mg/m² Air     Surrogate: a,a.a-Trifluorotoluene   1.51   1.00   mg/m² Air     Surrogate: Apene (C4-C12)   12.3   2.4   ppmv   1.54   ppmv   1.56   ppmv	Benzene	ND	0.031	ppmv					
Ethylbenzene   ND   0.10   mg/m² Air   Ethylbenzene   ND   0.023   ppmv   ND   0.024   mg/m² Air   MD   0.025   mg/m² Air   MD   MD   MD   MD   MD   MD   MD   M	Toluene	ND	0.10	mg/m¹ Air					
Ethylbenzene	Toluene	ND	0.027	ppmv					
Xylenes (total)   ND   0.04   mg/m² Air   Air   Methyl tert-butyl ether   ND   0.14   mg/m² Air   Methyl tert-butyl ether   ND   0.14   mg/m² Air   Methyl tert-butyl ether   ND   0.14   mg/m² Air   Methyl tert-butyl ether   ND   0.14   mg/m² Air   Surrogate: a,a,a-Trifluorotoluene   1.31   mpmv   1.34   98   65-140	Ethylbenzene	ND	0.10	mg/m¹ Air					
Xylenes (total)         ND         0.047 mg/m² ir           Methyl tert-butyl ether         ND         0.50 mg/m² ir           Methyl tert-butyl ether         ND         0.14 mg/m² ir           Methyl tert-butyl ether         ND         0.14 mg/m² ir         8.00 mg/m² ir         98 mg/m² ir           Surrogate: a,a,a-Trifluorotoluene         1.31 mg/m² ir         8.00 mg/m² ir         96 mg/m² ir         65-140 mg/m² ir           Surrogate: 4-Bromofluorobenzene         1.08 mg/m² ir         8.00 mg/m² ir         96 mg/m² ir         70-125 mg/m² ir           Laboratory Control Sample (7B06003-BS1)         Teppured & Analyzed: 02/06/07         02/06/07           Gasoline Range Organics (C4-C12)         43.5 mg/m² ir         10 mg/m² ir         55.0 mg/m² ir         79 mg/m² ir         70-115           Benzene         0.88 mg/m² ir         0.01 mg/m² ir         5.6 mg/m² ir         79 mg/m² ir         70-115           Benzene         0.278 mg/m² ir         0.031 mg/m² ir         0.304 mg/m² ir         97 mg/m² ir         4.70 mg/m² ir         80-150           Toluene         1.05 mg/m² ir         0.027 mg/m² ir         0.904 mg/m² ir         80 mg/m² ir         75-125           Ethylbenzene         0.17 mg/m² ir         0.023 mg/m² ir         0.904 mg/m² ir         80 mg/m² ir         75-135 <td>Ethylbenzene</td> <td>ND</td> <td>0.023</td> <td>ppmv</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Ethylbenzene	ND	0.023	ppmv					
Methyl tert-butyl ether         ND         0.50 mg/m² Air           Methyl tert-butyl ether         ND         0.14 mg/m² Air         8.00 mg/m² Air         98 mg/m² Air           Surrogate: a,a,a-Trifluorotoluene         7.81 mg/m² Air         8.00 mg/m² Air         98 mg/m² Air           Surrogate: 4-Bromofluorobenzene         7.72 mg/m² Air         8.00 mg/m² Air         96 mg/m² Air           Surrogate: 4-Bromofluorobenzene         1.08 mg/m² Air         8.00 mg/m² Air         96 mg/m² Air           Laboratory Control Sample (7B06003-BS1)         Terpared & Analyzed: 02/06/07         70-125           Laboratory Control Sample (7B06003-BS1)         mg/m² Air         55.0 mg/m² Air         79 mg/m² Air           Gasoline Range Organics (C4-C12)         43.5         10 mg/m² Air         0.970 mg/m² Air         92 mg/m² Air           Gasoline Range Organics (C4-C12)         12.3 mg/m² Air         0.970 mg/m² Air         0.970 mg/m² Air         92 mg/m² Air           Benzene         0.278 mg/m² Air         0.031 mg/m² Air         0.970 mg/m² Air         94 mg/m² Air         75-125           Toluene         3.93 mg/m² Air         0.027 mg/m² Air         4.70 mg/m² Air         84 mg/m² Air         75-125           Ethylbenzene         0.751 mg/m² Air         0.94 mg/m² Air         0.940 mg/m² Air         80 mg/m² Air         5.30 m	Xylenes (total)	ND	0.20	mg/m³ Air					
Methyl tert-butyl ether         ND         0.14         ppmv           Surrogate: a,a,a-Trifluorotoluene         7.81         mg/m² Air         8.00         98         65-140           Surrogate: A-Bromofluorobenzene         7.72         mg/m² Air         8.00         96         70-125           Surrogate: A-Bromofluorobenzene         7.72         mg/m² Air         8.00         96         70-125           Surrogate: A-Bromofluorobenzene         1.08         ppmv         1.12         96         70-125           Laboratory Control Sample (7B06003-BS1)         Prepared & Analyzet: 02/06/07           Gasoline Range Organics (C4-C12)         43.5         10         mg/m² Air         5.50         79         70-115           Gasoline Range Organics (C4-C12)         12.3         2.4         ppmv         15.6         79         70-115           Benzene         0.888         0.10         mg/m² Air         0.970         92         80-150           Benzene         0.278         0.031         ppmv         0.304         91         80-150           Toluene         3.93         0.10         mg/m² Air         4.70         84         75-125           Ethylbenzene         0.751         0.10         mg/m² Air <td>Xylenes (total)</td> <td>ND</td> <td>0.047</td> <td>ppmv</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Xylenes (total)	ND	0.047	ppmv					
Surrogate: a,a,a-Trifluorotoluene   7.81   mg/m² Air   8.00   98   65-140	Methyl tert-butyl ether	ND	0.50	mg/m³ Air					
Surrogate: a,a,a-Trifluorotoluene         1.31         ppmv         1.34         98         65-140           Surrogate: 4-Bromofluorobenzene         7.72         mg/m² Air         8.00         96         70-125           Surrogate: 4-Bromofluorobenzene         1.08         ppmv         1.12         96         70-125           Laboratory Control Sample (7B06003-BS1)         Prepared & Analyzed: 02/06/07           Gasoline Range Organics (C4-C12)         43.5         10         mg/m² Air         55.0         79         70-115           Gasoline Range Organics (C4-C12)         12.3         2.4         ppmv         15.6         79         70-115           Benzene         0.888         0.10         mg/m² Air         0.970         92         80-150           Benzene         0.888         0.10         mg/m² Air         0.90         91         80-150           Toluene         3.93         0.10         mg/m² Air         4.70         84         75-125           Ethylbenzene         0.751         0.10         mg/m² Air         0.940         80         75-135           Ethylbenzene         0.173         0.023         ppmv         0.217         80         75-135           Xylenes (total)	Methyl tert-butyl ether	ND	0.14	ppmv					
Surrogate: 4-Bromofluorobenzene         7.72         mg/m² Air ppmv         8.00         96 70-125           Laboratory Control Sample (7B06003-BS1)         Prepared & Analyzed: 02/06/07           Gasoline Range Organics (C4-C12)         43.5         10 mg/m³ Air         55.0         79 70-115           Gasoline Range Organics (C4-C12)         12.3         2.4 ppmv         15.6         79 70-115           Benzene         0.888         0.10 mg/m³ Air         0.970         92 80-150           Benzene         0.278         0.031 ppmv         0.304         91 80-150           Toluene         3.93 0.10 mg/m³ Air         4.70 84 75-125           Ethylbenzene         0.751 0.10 mg/m³ Air         0.940 80 75-135           Ethylbenzene         0.173 0.023 ppmv         0.217 80 75-135           Xylenes (total)         4.54 0.20 mg/m³ Air         5.30 86 75-135           Xylenes (total)         4.54 0.20 mg/m³ Air         5.30 71 60-140           Methyl tert-butyl ether         0.917 0.50 mg/m³ Air         1.30 71 60-140           Methyl tert-butyl ether         0.95 0.14 ppmv         0.361 71 60-140           Surrogate: a,a,a-Trifluorotoluene         9.36 mg/m³ Air 8.00 117 65-140         8.00 101 70-125           Surrogate: 4-Bromofluorobenzene         8.07 mg/m³ Air 8.00 101 70-125     <	Surrogate: a,a,a-Trifluorotoluene	7.81		mg/m² Air	8.00	98	65-140		
Surrogate: 4-Bromofluorobenzene         1.08         ppmr         1.12         96         70-125           Laboratory Control Sample (7B06003-BS1)         Prepared & Analyzed: 02/06/07           Gasoline Range Organics (C4-C12)         43.5         10         mg/m² Air         55.0         79         70-115           Gasoline Range Organics (C4-C12)         12.3         2.4         ppmv         15.6         79         70-115           Benzene         0.888         0.10         mg/m² Air         0.970         92         80-150           Benzene         0.278         0.031         ppmv         0.304         91         80-150           Toluene         3.93         0.10         mg/m² Air         4.70         84         75-125           Ethylbenzene         0.751         0.10         mg/m² Air         0.940         80         75-135           Ethylbenzene         0.173         0.023         ppmv         0.217         80         75-135           Xylenes (total)         4.54         0.20         mg/m² Air         5.30         86         75-135           Xylenes (total)         1.05         0.047         ppmv         1.22         86         75-135           Xylen	Surrogate: a,a,a-Trifluorotoluene	1.31		ppmv	1.34	98	65-140		
Prepared & Analyzed: 02/06/07	Surrogate: 4-Bromofluorobenzene	7.72		mg/m³ Air	8.00	96	70-125		
Gasoline Range Organics (C4-C12)         43.5         10 mg/m³ Air         55.0         79 70-115           Gasoline Range Organics (C4-C12)         12.3         2.4 ppmv 15.6         79 70-115           Benzene         0.888         0.10 mg/m³ Air 0.970         92 80-150           Benzene         0.278         0.031 ppmv 0.304         91 80-150           Toluene         3.93 0.10 mg/m³ Air 4.70         84 75-125           Toluene         1.05 0.027 ppmv 1.25         84 75-125           Ethylbenzene         0.751 0.10 mg/m³ Air 0.940         80 75-135           Ethylbenzene         0.173 0.023 ppmv 0.217         80 75-135           Xylenes (total)         4.54 0.20 mg/m³ Air 5.30         86 75-135           Xylenes (total)         1.05 0.047 ppmv 1.22         86 75-135           Methyl tert-butyl ether         0.917 0.50 mg/m³ Air 1.30 71 60-140           Methyl tert-butyl ether         0.255 0.14 ppmv 0.361 71 60-140           Surrogate: a,a,a-Trifluorotoluene         9.36 mg/m² Air 8.00 117 65-140           Surrogate: 4-Bromofluorobenzene         8.07 mg/m² Air 8.00 101 70-125	Surrogate: 4-Bromofluorobenzene	1.08		ppniv	1.12	96	70-125		
Gasoline Range Organies (C4-C12)         12.3         2.4         ppmv         15.6         79         70-115           Benzene         0.888         0.10         mg/m³ Air         0.970         92         80-150           Benzene         0.278         0.031         ppmv         0.304         91         80-150           Toluene         3.93         0.10         mg/m³ Air         4.70         84         75-125           Toluene         1.05         0.027         ppmv         1.25         84         75-125           Ethylbenzene         0.751         0.10         mg/m³ Air         0.940         80         75-135           Ethylbenzene         0.173         0.023         ppmv         0.217         80         75-135           Xylenes (total)         4.54         0.20         mg/m³ Air         5.30         86         75-135           Xylenes (total)         1.05         0.047         ppmv         1.22         86         75-135           Methyl tert-butyl ether         0.917         0.50         mg/m³ Air         1.30         71         60-140           Methyl tert-butyl ether         0.255         0.14         ppmv         0.361         71         60-140 </td <td>Laboratory Control Sample (7B06003</td> <td>3-BS1)</td> <td></td> <td></td> <td>Prepared &amp; Ar</td> <td>nalyzed: 02/06/0</td> <td>)7</td> <td></td> <td></td>	Laboratory Control Sample (7B06003	3-BS1)			Prepared & Ar	nalyzed: 02/06/0	)7		
Benzene         0.888         0.10 mg/m² Air         0.970         92         80-150           Benzene         0.278         0.031 ppmv         0.304         91         80-150           Toluene         3.93         0.10 mg/m³ Air         4.70         84         75-125           Toluene         1.05         0.027 ppmv         1.25         84         75-125           Ethylbenzene         0.751         0.10 mg/m³ Air         0.940         80         75-135           Ethylbenzene         0.173         0.023 ppmv         0.217         80         75-135           Xylenes (total)         4.54         0.20 mg/m³ Air         5.30         86         75-135           Xylenes (total)         1.05         0.047 ppmv         1.22         86         75-135           Methyl tert-butyl ether         0.917         0.50 mg/m³ Air         1.30         71         60-140           Surrogate: a,a,a-Trifluorotoluene         9.36         mg/m³ Air         8.00         117         65-140           Surrogate: a,a,a-Trifluorotoluene         1.57         ppmv         1.34         117         65-140           Surrogate: 4-Bromofluorobenzene         8.07         mg/m³ Air         8.00         101         70-1	Gasoline Range Organics (C4-C12)	43.5	10	mg/m³ Air	55.0	79	70-115		
Benzene         0.278         0.031         ppmv         0.304         91         80-150           Toluene         3.93         0.10         mg/m³ Air         4.70         84         75-125           Toluene         1.05         0.027         ppmv         1.25         84         75-125           Ethylbenzene         0.751         0.10         mg/m³ Air         0.940         80         75-135           Ethylbenzene         0.173         0.023         ppmv         0.217         80         75-135           Xylenes (total)         4.54         0.20         mg/m³ Air         5.30         86         75-135           Xylenes (total)         1.05         0.047         ppmv         1.22         86         75-135           Xylenes (total)         1.05         0.047         ppmv         1.22         86         75-135           Methyl tert-butyl ether         0.917         0.50         mg/m³ Air         1.30         71         60-140           Surrogate: a,a,a-Trifluorotoluene         9.36         mg/m³ Air         8.00         117         65-140           Surrogate: 4-Bromofluorobenzene         8.07         mg/m³ Air         8.00         101         70-125	Gasoline Range Organics (C4-C12)	12.3	2.4	ppmv	15.6	79	70-115		
Toluene 3.93 0.10 mg/m³ Air 4.70 84 75-125  Toluene 1.05 0.027 ppmv 1.25 84 75-125  Ethylbenzene 0.751 0.10 mg/m³ Air 0.940 80 75-135  Ethylbenzene 0.173 0.023 ppmv 0.217 80 75-135  Xylenes (total) 4.54 0.20 mg/m³ Air 5.30 86 75-135  Xylenes (total) 1.05 0.047 ppmv 1.22 86 75-135  Methyl tert-butyl ether 0.917 0.50 mg/m³ Air 1.30 71 60-140  Methyl tert-butyl ether 0.255 0.14 ppmv 0.361 71 60-140  Surrogate: a,a,a-Trifluorotoluene 9.36 mg/m³ Air 8.00 117 65-140  Surrogate: a,a,a-Trifluorotoluene 1.57 ppmv 1.34 117 65-140  Surrogate: 4-Bromofluorobenzene 8.07 mg/m³ Air 8.00 101 70-125	Benzene	0.888	0.10	mg/m³ Air	0.970	92	80-150		
Toluene         1.05         0.027 ppmv         1.25         84         75-125           Ethylbenzene         0.751         0.10 mg/m³ Air         0.940         80         75-135           Ethylbenzene         0.173         0.023 ppmv         0.217         80         75-135           Xylenes (total)         4.54         0.20 mg/m³ Air         5.30         86         75-135           Xylenes (total)         1.05         0.047 ppmv         1.22         86         75-135           Methyl tert-butyl ether         0.917         0.50 mg/m³ Air         1.30         71         60-140           Methyl tert-butyl ether         0.255         0.14 ppmv         0.361         71         60-140           Surrogate: a,a,a-Trifluorotoluene         9.36         mg/m³ Air         8.00         117         65-140           Surrogate: 4-Bromofluorobenzene         8.07         mg/m³ Air         8.00         101         70-125	Benzene	0.278	0.031	ppmv	0.304	91	80-150		
Ethylbenzene         0.751         0.10 mg/m³ Air         0.940         80 75-135           Ethylbenzene         0.173         0.023 ppmv         0.217         80 75-135           Xylenes (total)         4.54         0.20 mg/m³ Air         5.30         86 75-135           Xylenes (total)         1.05         0.047 ppmv         1.22         86 75-135           Methyl tert-butyl ether         0.917         0.50 mg/m³ Air         1.30         71 60-140           Methyl tert-butyl ether         0.255         0.14 ppmv         0.361         71 60-140           Surrogate: a,a,a-Trifluorotoluene         9.36         mg/m³ Air         8.00         117 65-140           Surrogate: a,a,a-Trifluorotoluene         1.57         ppmv         1.34         117 65-140           Surrogate: 4-Bromofluorobenzene         8.07         mg/m³ Air         8.00         101 70-125	Toluene	3.93	0.10	mg/m³ Air	4.70	84	75-125		
Ethylbenzene       0.173       0.023       ppmv       0.217       80       75-135         Xylenes (total)       4.54       0.20 mg/m³ Air       5.30       86       75-135         Xylenes (total)       1.05       0.047 ppmv       1.22       86       75-135         Methyl tert-butyl ether       0.917       0.50 mg/m³ Air       1.30       71       60-140         Methyl tert-butyl ether       0.255       0.14 ppmv       0.361       71       60-140         Surrogate: a,a,a-Trifluorotoluene       9.36       mg/m³ Air       8.00       117       65-140         Surrogate: a,a,a-Trifluorotoluene       1.57       ppmv       1.34       117       65-140         Surrogate: 4-Bromofluorobenzene       8.07       mg/m³ Air       8.00       101       70-125	Toluene	1.05	0.027	ppmv	1.25	84	75-125		
Xylenes (total)       4.54       0.20 mg/m³ Air       5.30       86       75-135         Xylenes (total)       1.05       0.047 ppmv       1.22       86       75-135         Methyl tert-butyl ether       0.917       0.50 mg/m³ Air       1.30       71       60-140         Methyl tert-butyl ether       0.255       0.14 ppmv       0.361       71       60-140         Surrogate: a,a,a-Trifluorotoluene       9.36       mg/m³ Air       8.00       117       65-140         Surrogate: a,a,a-Trifluorotoluene       1.57       ppmv       1.34       117       65-140         Surrogate: 4-Bromofluorobenzene       8.07       mg/m³ Air       8.00       101       70-125	Ethylbenzene	0.751	0.10	mg/m³ Air	0.940	80	75-135		
Xylenes (total)       1.05       0.047 ppmv       1.22       86       75-135         Methyl tert-butyl ether       0.917       0.50 mg/m³ Air       1.30       71       60-140         Methyl tert-butyl ether       0.255       0.14 ppmv       0.361       71       60-140         Surrogate: a,a,a-Trifluorotoluene       9.36       mg/m³ Air       8.00       117       65-140         Surrogate: a,a,a-Trifluorotoluene       1.57       ppmv       1.34       117       65-140         Surrogate: 4-Bromofluorobenzene       8.07       mg/m³ Air       8.00       101       70-125	Ethylbenzene	0.173	0.023	ppmv	0.217	80	75-135		
Methyl tert-butyl ether       0.917       0.50 mg/m³ Air       1.30       71 60-140         Methyl tert-butyl ether       0.255       0.14 ppmv 0.361       71 60-140         Surrogate: a,a,a-Trifluorotoluene       9.36 mg/m² Air 8.00       117 65-140         Surrogate: a,a,a-Trifluorotoluene       1.57 ppmv 1.34 117 65-140         Surrogate: 4-Bromofluorobenzene       8.07 mg/m² Air 8.00 101 70-125	Xylenes (total)	4.54	0.20	mg/m³ Air	5.30	86	75-135		
Methyl tert-butyl ether         0.255         0.14         ppmv         0.361         71         60-140           Surrogate: a,a,a-Trifluorotoluene         9.36         mg/m² Air         8.00         117         65-140           Surrogate: a,a,a-Trifluorotoluene         1.57         ppmv         1.34         117         65-140           Surrogate: 4-Bromofluorobenzene         8.07         mg/m² Air         8.00         101         70-125	Xylenes (total)	1.05	0.047	ppmv	1.22	86	75-135		
Surrogate: a,a,a-Trifluorotoluene         9.36         mg/m² Air         8.00         117         65-140           Surrogate: a,a,a-Trifluorotoluene         1.57         ppmv         1.34         117         65-140           Surrogate: 4-Bromofluorobenzene         8.07         mg/m² Air         8.00         101         70-125	Methyl tert-butyl ether	0.917	0.50	mg/m³ Air	1.30	71	60-140		
Surrogate: a,a,a-Trifluorotoluene 1.57 ppmv 1.34 117 65-140 Surrogate: 4-Bromofluorobenzene 8.07 mg/m³-Air 8.00 101 70-125	Methyl tert-butyl ether	0.255	0.14	ppmv	0.361	71	60-140		
Surrogate: 4-Bromofluorobenzene 8.07 mg/m³ Air 8.00 101 70-125	Surrogate: a,a,a-Trifluorotoluene	9.36		mg/m¹ Air	8.00	117	65-140		
	Swrogate: a,a,a-Trifluorotoluene	1.57		ppmv	1.34	117	65-140		
Surrogate: 4-Bromofluorobenzene 1.13 ppmv 1.12 101 70-125	Swrogate: 4-Bromofluorobenzene	8.07		mg/m³ Air	8.00	101	70-125		
	Surrogate: 4-Bromofluorobenzene	1.13		ppmv	1.12	101	70-125		





Project: ARCO #2111, San Leandro, CA

Spike

Source

MQB0112 Reported: 02/19/07 10:34

RPD

%REC

Project Number: G0C28-0023 Project Manager: Jay Johnson

## Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

Reporting

1.50

8.10

1.13

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7B06003 - EPA 5030B [P/T]	/ EPA 8015B/80	)21B						••••		
Laboratory Control Sample Dup (7B0	6003-BSD1)			Prepared o	& Analyze	ed: 02/06/	07			
Gasoline Range Organics (C4-C12)	45.0	10	mg/m³ Air	55,0		82	70-115	3	35	
Gasoline Range Organics (C4-C12)	12.8	2.4	ppmv	15.6		82	70-115	4	35	
Benzene	0.877	0.10	mg/m³ Air	0.970		90	80-150	1	35	
Benzene	0.275	0.031	ppmv	0.304		90	80-150	1	35	
Toluene	1.04	0.027	II .	1.25		83	75-125	1	30	
Toluene	3.92	0.10	mg/m³ Air	4.70		83	75-125	0.3	30	
Ethylbenzene	0.735	0.10	и	0.940		78	75-135	2	30	
Ethylbenzene	0.170	0.023	ppmv	0.217		78	75-135	2	30	
Xylenes (total)	4.52	0.20	mg/m³ Air	5.30		85	75-135	0.4	30	
Xylenes (total)	1.04	0.047	ppmv	1.22		85	75-135	1	30	
Methyl tert-butyl ether	0.950	0.50	mg/m³ Air	1.30		73	60-140	4	30	
Methyl tert-butyl ether	0.264	0.14	ppmv	0.361		73	60-140	3	30	
Surrogate: a,a,a-Trifluorotoluene	8.98		mg/m³ Air	8.00		112	65-140	***********************	***************************************	A

ppniv

mg/m³ Air

ppmv

1.34

8.00

1.12

I12

101

101

65-140

70-125

70-125

Surrogate: a,a,a-Trifluorotoluene

Surrogate: 4-Bromofluorobenzene

Surrogate: 4-Bromofluorobenzene





Project: ARCO #2111, San Leandro, CA

MQB0112 Reported: 02/19/07 10:34

Project Number: G0C28-0023

Project Manager: Jay Johnson

#### Notes and Definitions

ΡI Primary and confirm results varied by > than 40% RPD

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

Sample results reported on a dry weight basis dry

RPD Relative Percent Difference

## Atlantic Richfield Company

**Chain of Custody Record** 

Project Name:

ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

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			1

	Pageof
On-site Time: 0500	Temp: 45
Off-site Time: 0830	Temp: 48
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: TestAmerica	BP/AR Facility No.: 2111					
Address: 885 Jarvis Drive		Consultant/Contractor: Stratus Environmental, Inc.				
Morgan Hill, CA 95937	BP/AR Facility Address: 1156 Davis Street, San Leandro Site Lat/Long:	Address: 3330 Cameron Park Drive, Suite 550				
Lab PM: Lisa Race	Clif	Cameron Park, CA 95682				
Tele/Fax: 408-782-8156 408-782-6308 (fax)		Consultant/Contractor Project No.:				
BP/AR PM Contact: Paul Supple	G0C28-0023	Consultant/Contractor PM: Jay Johnson				
Address: 2010 Crow Canyon Place, Suite 150		Tele/Fax: (530) 676-6000 / (530) 676-6005				
San Ramon, CA	1 3 3 3 3 11	Report Type & QC Level: Level 1 with EDF				
Tele/Fax: 925-275-3506	1 - Us / Bint / Both	S-mail EDD To: cjewitt@stratusinc.net				
Lab Bottle Order No: Matrix	01-Contractor rapor	nvoice to: Atlantic Richfield Co.				
Pate Date Description Time Water/Liquid Air	Preservative Requester  No. OX Continuors  HOB 0117  HCI HCI HCI Wethanol	Sample Point Lat/Long and Comments				
1 02/11 DPEAINE 0553 2507 X	61 1 1 1 1 1 1 1					
2 02111 ASA EFF 0551 Y		Strolen TAX				
3 02111 A 545 INT 0549 \						
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	- <del> </del>	<del>                                      </del>				
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6		24 HTR THY				
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8						
9		<del>                                      </del>				
10		<del></del>				
Sampler's Name: // Nr(5 HIV	Reship dishort by / Affiliation Date Time  MM 5 Turken, 2507 1145					
Sampler's Company: 9Truto 5	My Stuffe 2500 1145	Accepted By / Affiliation Date Time				
Shipment Date: 2.507	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Turning HA/67 195				
Shipment Method: Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. J. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Shipment T. Ship						
Shipment Tracking No:  Secial Instructions:  Please or results to rmiller@b						
ecial Instructions: Please cc results to rmiller@t	broadbentinc.com					
Custody Seals In Place: Yes //No   Temp Blank:	The contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract o					
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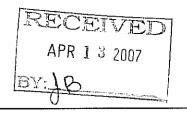
#### TEST AMERICA SAMPLE RECEIPT LOG

			AMENION SAMPL	L NEOLIF	LUG				
GLIENT NAME: REC. BY (PRINT)	Shalus	•	DATE REC'D AT LAB:	2-5-6	7			For Regul	atory Purposes?
131	(EB		TIME REC'D AT LAB:	1145				DRINKING	WATER YES NO
WORKORDER:	MUBBOIL	<del></del>	DATE LOGGED IN:	2-5-	07-	•	•	WASTE W	
						•			123/10
CIRCLE THE APPR	OPRIATE RESPONSE	LAB		CONTAINER	PDECED		SAMPLE	DATE	
		SAMPLE#	CLIENT ID	DESCRIPTION	VATIVE	рΗ	1	SAMPLED	REMARKS:
1. Custody Seal(s)	Present / Absent						MATRIA	SAMPLED	CONDITION (ETC.)
	. Intact / Broken*								
2. Chain-of-Custody	Present / Absent*								
3. Traffic Reports or									
Packing List:	Present / Absent				<u></u>				/
4. Airbill:	Airbill / Sticker								<u></u>
•	Present / Absent					<del></del> -			
5. Airbill #:				~.				//	
6. Sample Labels:	Present / Absent		•				20		
7. Sample IDs:	Listed / Not Listed						W/		
	on Chain-of-Custody						/		
8. Sample Condition:	Intack/ Broken*/		<u> </u>		410	$\overline{}$			
	Leaking*				<del>// /</del>	-			
9. Does information or	chain-of-custody,		*		<del>'/ </del>				
traffic reports and s	ample labels			ָם יַ פּין	<del>/</del>				
agree?	Yes No*		<del></del>	4-5					
<ol><li>Sample received within</li></ol>				2/			<del></del>		· · · · · · · · · · · · · · · · · · ·
hold time?	Yes No*			/.					
11. Adequate sample volu			/	<i>-</i>					
received?	Yes (No*								*
12. Proper preservatives i									
13. Trip Blank / Temp Bla									
(circle which, if yes)	Yes / No.*	`			<del></del>			<del></del>	
14. Read Temp:	11)				<del></del>	<del> -</del>			
Corrected Temp:	10/1/2		/						
Is corrected temp 4+/	/-2°C7: Yes / No**				<del></del>				15. THE THE THE THE THE THE THE THE THE THE
(Acceptance range for samples re	quiring (hermal pres.)							<u>-</u>	
*Exception (if any): MET		/		·					
or Problem COC	Cedla F								
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~L Revision 8 ~es Rev 7 (07/19/05) *IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Page____of





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

April 6, 2007 Project No.: E2111-03

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

Re: Remediation System Operation and Maintenance Data Package, ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California (Field activities performed on March 5, 8, 14, and 29, 2007)

#### General Information

Data Submittal Prepared / Reviewed by: Sandy Hayes and Kiran Nagaraju / Steve Carter

Phone Number: (530) 676-6007 / (530) 676-6008

On-Site Supplier Representatives: Chris Hill

System Overview: Dual Phase Extraction System, Air Stripper, and Groundwater Extraction and Treatment System

Operational Status: Continuous operation.

Scope of Work Performed: Conduct routine system operation and maintenance, and record field measurements. Influent, mid-fluent, and effluent air and water samples were collected on March 5, 2007. An additional effluent air sample was collected on March 8, 2007.

Variations from Work Scope: Benzene (0.17 mg/m³) and ethylbenzene (0.28 mg/m³) were reported in the effluent air sample collected on March 5, 2007. Although these concentrations were within the limits identified in the air discharge permit, effluent air was re-sampled on March 8, 2007 and system was shutdown pending receipt and verification of analytical results. Petroleum hydrocarbons were not reported in the effluent air sample collected on March 8, 2007. When Stratus attempted to re-start the system on March 14, 2007, the level floats on the knockout tank malfunctioned and hence the system could not be re-started. The floats were replaced on March 29, 2007 and the system was re-started.

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

Project Manager

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Kiran Nagaraju

Staff Engineer

Attachments:

· Field Data Sheets

• Chain of Custody Documentation

Certified Analytical Results

CC: Paul Supple, BP/ARCO

STRATUS

Siephen J. Carter

No. 5577

#### ARCO FACILITY NO. 2111

1156 Davis Street San Leandro, California



#### Dual Phase Extraction and Air Stripper System

Date:	3-5-0	7	T	Fechnician:		CHILL	
Onsite Time: 0500			٧	Veather Conditi	ions:	48	
Offsite Time:	0730			Ambient Tempe	rature:	Clun	
Equipment Man	ufacturer/Mod	lel# <u>J</u>	Mini RHE	PID			
		<u>j</u>	Air More	Meter			
	····		System Info	rmation		_	
System Status I	Upon Arrival:		Operational		Non-Operatio	onal 🔀	
System Status	Upon Departu	ге:	Operational	区	Non-Operatio	nal	
Electric Meter F	Reading:	1001	5				
Hour Meter Rea	ading:	437	6				
Totalizer Readi Air Stripper:	ng Prior to	10138	1	PID Calibration	Date: 3	507	-
Totalizer Readi Stripper:	ng After Air	13419	0				
			Field Measu	rements			
Paran	neter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Com	nents
Differential Pre	ssure. "wc		30 HZO	**			
Air Velocity, FF		1050	2250				
Pipe Diameter,		73	Ц	4	3		
Air Flow Rate,		180	•		3		
Applied Vacuu		24°HO	045"HZO	NA	NA		
Temperature,		132	107	82	60		
PID Readings,		160	35	50	82.	PID for GAC	2-1: 3
	<u>, `                                     </u>	Oth		Measurements	4	· ₁	
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs			
V-1	50	18					
V-2	50	17					
V-3	50	17					
MW-1	100	14			1		
MW-3	100	18		i			
MW-7	100	16	<u> </u>				
mu8	100/	1/2/		<u> </u>			

## ARCO FACILITY NO. 2111

#### 1156 Davis Street San Leandro, California



#### Dual Phase Extraction and Air Stripper System

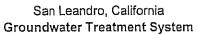
	S	ampling Info	rmation (monthly)		
Sample ID	Dat	e & Time	Sample ID	Date	e & Time
)2111DPEAINF	3507	0638	02111AGAC1	3507	0632
2111ASAEFF		0636	02111AEFF	1	0630
02111ASYSINF	1	0634			
Analyses Required: GRC	D, BTEX, and M	ТВЕ		I	
	······	Operation & N	faintenance Notes		
			<del>". "</del>	11 11 11 11 11 11 11 11 11 11 11 11 11	
		1 = 41000			
			· · ·		

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
МТВЕ	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	112.		

Signature:

Date: 390 >

### 1156 Davis Street





Date: Onsite Time: Offsite Time:	3-5-07 0500 0730		- - \	Technician: Weather Co Ambient Te		CHILI Clum 48			
System Status	Upon Arrival:		Operational	M	Non-operation	nal			
System Status	At Departure:	区	Operational		Non-operation	nal			
Transfer Pump	):	Ø	Operational		Non-operation	nal			
Transfer Pump	Hour Meter Rea	ading:	NH						
Effluent Flow	Totalizer Reading	ı: 1 <u>3</u> 4	0565	 	(Quапепу бу рН:	riela instrur	190		
No. of Carbon	Vessels:	•	2		Temperature:	:	14.10		
Lead Carbon \ (psi):	- essel Pressure/ -	(							
Well ID	Hour Meter F	Reading	Totalizer	Reading	Total Depth	Pump Depth			
MW-2			227	4.9					
		····							
		Sar	npling Infor	mation					
		& Time		nple ID	Date & T	ime			
02111DPEWI	NF	3507	055 Z	02111MW	2WINF	3507 76(3			
02111ASWIN	F		0618						
02111ASWEF	F		0607						
02111WGAC	1		0602						
02111WEFF			0555						
				1321	113507	0	620		
Lab Pa	arameters	Sampling	g Frequency	Samp	le Location	Analytical N	lethod		
GRO, BT	EX, & 5-Oxys	М	onthly	IN	F& EFF	EPA Method	8260B		
							r Characteristics ield Instrument)  SO  141 C  ump Depth  Date & Time  1507 9613  Analytical Method  EPA Method 8260B		
				<u> </u>					
Notes: IVNNEL Surpla	on mu	<b>ル</b> Ζ エ	n Hud	d for	10 min	s Thm	1		
		<u> </u>							
Signature:	1 km	pul		Date	350	>			

### 1156 Davis Street

San Leandro, California Groundwater Treatment System



Date: Onsite Time: Offsite Time:	380 0450 0530	<u> </u>	- - -		n: Conditions: Femperature	CHICC Clay 40	
System Status	Upon Arrival:		Operation	nal	Non-operation	onal	
System Status	At Departure:	셸	Operation	nal 🔀	کر Non-operatio		
Transfer Pump	o;	区	Operation	nal	- ] Non-operation		
Transfer Pump	Hour Meter Re	eading: /	NA				·
	Totalizer Readin	12	295		· ·	ater Characteristic y Field Instrument)	S
No. of Carbon	Vessels:	3			Temperature	·	·
Lead Carbon V (psi):	essel Pressure	7		_			
Well ID	Hour Meter	Reading	Totaliza	er Reading	Total Depth	Pump Depth	
MW-2			2284				
	3						
			pling Info	rmation			
Samp	<del></del>	Date &	Time	Sar	mple ID	Date & Time	
02111DPEWIN				02111MW	2WINF		
02111ASWINF							
<u>02111ASWEFF</u> 02111WGAC1							
02111WGAC1 02111WEFF							
Lab Para	ameters	Sampling F	requency	Sample	Location	Analytical Method	
GRO, BTEX	., & 5-Oxys	Mont	hly	INF	& EFF	EPA Method 8260B	
Notes:		0 1					
Signature:	Jan /1	m		Date:	*		

### 1156 Davis Street San Leandro, California





### Dual Phase Extraction and Air Stripper System

Onsite Time: 0450  Offsite Time: 0530  Equipment Manufacturer/Model#				Technician: Weather Condi Ambient Tempe		OHILL Class UD	
			System Inf	ormation			
System Status	s Upon Arrival:		Operational	$\boxtimes$	Non-Operati	onal	
System Status	s Upon Departi	ıre:	Operational		Non-Operati	onal X TULY	
Electric Meter	Reading:	1147	0			- 000	
Hour Meter Re	eading:	443	2	•			
Totalizer Read Air Stripper:	ding Prior to	1044	35	PID Calibration	Date:	3-7-07	
Totalizer Read Stripper:	ding After Air	1371	70				
			Field Meası	ırements			
Parai	meter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments	
Differential Pre	essure, "wc		25				
Air Velocity, Fi	PM						
Pipe Diameter	, inches	3	4	4	3		
Air Flow Rate,	cfm			180			
Applied Vacuu	ım, "wc		.50°	NA	NA		
Temperature,	deg F			80	58		
PID Readings,	, ppmv			80	X	PID for GAC-1:	
	<u> </u>	Oth Applied Vac.,		Measurements	·		
Well ID	% Open	Applied vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs			
V-1	500	20		-			
V-2	50	16					
V-3	30	17_					
MW-1	100	15					
MW-3	100	18					
MW-7	100	18					
ma &	UU	18					

Signature:





### 1156 Davis Street San Leandro, California Dual Phase Extraction and Air Stripper System

Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF		02111AGAC1	
02111ASAEFF		02111AEFF	3507 0510
02111ASYSINF			
Analyses Required: GRO, B			

	Operation & Maintenance Notes										
Hail	Hit	OM	EFF	Mis	Lusy	Vişit	1415	<u>I</u> 5	Re	Genzle	

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
мтве	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	1		

Christial Signature:

Date: 3807

### 1156 Davis Street



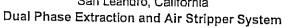
San Leandro, California

Dual Phase Extraction and Air Stripper System

Date: Onsite Time: Offsite Time: Equipment M	7 / 2 2 2		-	Technician: Weather Condi Ambient Tempe		CHIL Cleu 48	n	
			System Inf	ormation	***************************************			
System Statu	s Upon Arrival	:	Operational		Non-Operati	ional [		
System Statu	s Upon Depart	cure:	Operational	Operational Non-Operational V  Non-Operational V  Non-Operational V  Flour Tan  Tan				
Electric Meter	r Reading:			No	Review	5		
Hour Meter R	eading:	MACAGE SINCE A STREET STREET, STREET		Flout	- 13nd	In	Dre KA	
Totalizer Rea Air Stripper:	ding Prior to			PID Calibration			$ \begin{bmatrix} 1 \\ 1 \end{bmatrix}$	
Totalizer Rea Stripper:	ding After Air			systi	in he	oft	OV	
		1	Field Meas		<u> </u>			
Para	meter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Co	mments	
Differential Pr	essure, "wc							
Air Velocity, F	PM							
Pipe Diamete	r, inches							
Air Flow Rate	, cfm							
Applied Vacu	um, "wc		_	NA	NA			
Temperature,	deg F							
PID Readings	s, ppmv					PID for G	AC-1:	
		Oth	or Poodings!	Measurements		<u> </u>		
Well ID	% Open	Applied Vac.,	Total depth,	Stinger Depth,				
V-1		"Hg	feet bgs	feet bgs		<u> </u>		
V-1 V-2								
V-2 V-3								
MW-1								
MW-3								
		1//						
MW-7								

### 1156 Davis Street

### San Leandro, California





Date: 32907 Onsite Time: 1000 Offsite Time: 1130 Equipment Manufacturer/Model#				Technician: Weather Cond Ambient Temp	itions: erature:	CHIL Crean 65	
		<del> </del>	System In	formation			
System Statu	s Upon Arrival:	:	Operational		Non-Operat	ional 🔯	
System Statu	s Upon Depart	ure:	Operational	区	Non-Operat	ional	- -
Electric Meter Reading: 1/45			7_		_	<u> </u>	
	our Meter Reading: 443			_	KEPINI DPF Tu	ue Flu	eat In
Totalizer Rea	ding Prior to	1048	357	- PID Calibration -		1280	- 1
Totalizer Read Stripper:	ding After Air	1375	80	-			
			Field Meas	urements			
Para	Parameter (after blower, 2111DPEAINF)		Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Com	ıments
Differential Pr	essure, "wc		Bo no	· · · · · · · · · · · · · · · · · · ·			
Air Velocity, F	РМ	1048	2232				
Pipe Diameter	r, inches	23	1 4	4	_3		
Air Flow Rate,	. cfm	7	The state of	180			
Applied Vacuu	ım, "wc	22 Hb	.45 1120		NA		
Temperature,	deg F	130	110	90	62		
PID Readings	, ppmv	150	30	45	8	PID for GAC	2-1: 12
·							
	·		er Readings/	Measurements			
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs			
V-1	50	17				<u> </u>	
V-2	50	17					
V-3	50	17					
MW-1	100	16					
MW-3	100	118					
MW-7	100	160	1				
mu 8	100 /	14/			<del></del>		
Signature:	(An)	That		Date:	329	107	

## ARCO FACILITY NO. 2111 1156 Davis Street San Leandro, California Dual Phase Extraction and Air Stripper System



02111DPEAINF         02111AGAC1           02111ASAEFF         02111AEFF	Sample ID	Date & Time	Sample ID	Date & Time
02111ASAEFF 02111AEFF	11DPEAINF		02111AGAC1	
	11ASAEFF		02111AEFF	
02111ASYSINF	11ASYSINF			

		(	Operation &	Maintenance No	restary	
Install	Hents	Fa	DPE	THUK	Restary	34542
					/ 55	7 - 7
						<del></del>
				,		
	<del></del>					
	<u>,</u>					

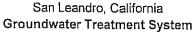
Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
ВТЕХ	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	2		

Signature:

Date: 32907

### 1156 Davis Street

### San Leandro, California





Date: Onsite Time: Offsite Time:	3 29 0 1000 1130	7	· ·	Technician Weather Co	onditions:	CHILL Clery 65	
System Status U	pon Arrival:		Operationa	al 💢	Non-operatio	nal	
System Status A	t Departure:	X	Operationa	al 🔲	Non-operatio	nal	
Transfer Pump:		$\bigvee$	Operationa	al 🔲	Non-operatio	nal	
Transfer Pump H	lour Meter Rea	eding:/	NA	<del> </del>		iter Characte / Field Instrun	
Effluent Flow Tot	talizer Reading	j: <u>L</u>	33 ₇ 26	<u> 12</u>	pH:	, i leiu ilistiuti	leill)
No. of Carbon Ve	essels:	て	_	_	Temperature	:	
Lead Carbon Ver (psi):	ssel Pressure -	4				·	
Well ID	Hour Meter F	Reading	Totalize	r Reading	Total Depth	Pump Depth	
MW-2			227	40			**************************************
	<u></u>	Sam	pling Infor	mation			
Sample	e ID	Date 8	k Time	San	nple ID	Date & Ti	ne
02111DPEWINF				02111MW2	WINF		
02111ASWINF							
02111ASWEFF	,						
02111WGAC1							
02111WEFF							
							<u></u>
Lab Parar	neters	Sampling	Frequency	Sample	Location	Analytical Me	thod
GRO, BTEX,	& 5-Oxys	Mor	ıthly	INF	& EFF	EPA Method 8	260B
		·					
Notes: Tusta	II Flow	4 in	DRET	ave,	Rotan F	595H	7

Date: 32707

Signature:

### Atlantic Richfield Company

_ab Name: TestAmerica

Address: 885 Jarvis Drive

Morgan Hill, CA 95937

Lab PM: Lisa Race

A BP affiliated company

Tele/Fax: 408-782-8156/ 408-782-6308

Address: 2010 Crow Canyon Place, Suite 150

BP/AR PM Contact: Paul Supple

Shipment Date: 3-5-07
Shipment Method: Stuntes

Custody Seals In Place: Yes No

Shipment Tracking No: Special Instructions:

San Ramon, CA

### Chain of Custody Record

MIGMIRUSH

Pro	ject	Nam	c:
-----	------	-----	----

ARCO Facility No. 2111

BP/AR Facility No.:

California Global ID No.:

Provision or OOC (circle one)

Site Lat/Long:

Phase/WBS;

Please cc results to bpedf@broadbentinc.Com

Temp Blank: Yes / No

Sub Phase/Task:

Enfos Project No.:

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda

T0600101764

State or Lead Regulatory Agency:

California Regional Water Quality Control Board

Provision

Requested Due Date (mm/dd/yy): 24 hours for Efflu

2111

G0C28-0023

03-O&M

03-Analytical

BP/AR Facility Address: 1156 Davis St., San Leandro

& STD for others

On-site Time: 0500 Temp: 48
Off-site Time: 6730 Temp: 577
Sky Conditions: CV

T LF CHILL	Tiviete Citological Events.	
ent	Wind Speed:	Direction:
	Consultant/Contractor: Stratus	Environmental, Inc.
	Address: 3330 Cameron Parl	
	Cameron Park, CA	95682
	Consultant/Contractor Project No.:	E2111-03
	Consultant/Contractor PM:	Jay Johnson
	Tele/Fax: (530) 676-6000 / (5	30) 676-6005
	Report Type & QC Level:	Level 1 with EDF

E-mail EDD To:

Trip Blank: Yes / No

shaves@stratusinc.net

MS/MSD Sample Submitted: Yes / No

Tele/	Fax: 925-275-3506/925-275-3815	5					Cost Element:		Subcontr	actor Co	ost							Invoi	ce to:	: Atl	antic	Ricl	ifield	l Co.	,		
Lab	Bottle Order No:				Mat	rix				Pres	ervat	ive			Requ	estec	Analy	sis	Tu	trnai	оппо	d Ti	ne ]				
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air	Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO,	HCI	Methanol		GRO by 8015	BTEX by 8260	s		24-hours	Standard				Sample	Point Lat/ Comment		nd
.A	02111DPEAINF	7638	3507	L	Ш	x		ス							х	x >	(			х							
2	02111ASAEFF	043/				х		Z							х	x x				х							
<u>/3</u>	02111ASYSINF	0434				х		2							х	x >	٤			х		·					
X	02111AGAC1	632	oxed			х		2							х	x >	١ .			х							
15	02111AEFF	0630	J			х		2							х	x x	١		х								
6	·																										
7								Ī																			
8																											
9																										· · · · · · · · · · · · · · · · · · ·	
10							, i			.*						Τ			-						<del> </del>		
Sam	pler's Name: / h/13 H	11						Kuqi	girfied By	/ Affiliat	jeń				Date		l'ime			Λ	ccept	ed B	y / A	filiation		Date	Time
Sam	pler's Company: Stratus Environ	mental.	Inc.				/ Sully	1	5	Tin	u	·		T	557	710	5(4)			2000	اوسائن!	11.1			3/	11/2	1100

Cooler Temp on Receipt: D/k °F/C

A BP affiliated company

### **Chain of Custody Record**

Project Name: ARCO Facility No. 2111

BP BU/AR Region/Enfos Segment:

State or Lead Regulatory Agency:

BP > Americas > West > Retail > Alameda

California Regional Water Quality Control Board

Requested Due Date (mm/dd/yy):

24 hours for Effluent & STD for others

Wind Speed:

	rage ur
On-site Time: 0500	Temp: 48
Off-site Time: 0770	Temp: 50
Sky Conditions: Clum	
Meteorological Events:	

Direction:

	& STD for other	crs
Lab Name: TestAmerica	BP/AR Facility No.: 2111	Consultant/Contractor: Stratus Environmental, Inc.
Address: 885 Jarvis Drive	BP/AR Facility Address: 1156 Davis St., San Leandro	Address: 3330 Cameron Park Drive, Suite 550
Morgan Hill, CA 95937	Site Lat/Long:	Cameron Park, CA 95682
Lab PM: Lisa Race	California Global ID No.: T0600101764	Consultant/Contractor Project No.: E2111-03
Tele/Fax: 408-782-8156/ 408-782-6308	Enfos Project No.: G0C28-0023	Consultant/Contractor PM: Jay Johnson
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one) Provision	Tele/Fax: (530) 676-6000 / (530) 676-6005
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS: 03-O&M	Report Type & QC Level: Level 1 with EDF
San Ramon, CA	Sub Phase/Task: 03-Analytical	E-mail EDD To: shayes@stratusinc.net
Tele/Fax: 925-275-3506/925-275-3815	Cost Element: Subcontractor Cost	Invoice to: Atlantic Richfield Co.
Lab Bottle Order No: Matrix	Preservative R	equested Analysis Turnaround Time
No.  Time  Date  Soil/Solid  Water/Liquid	No. of Containers Unpreserved H ₂ SO ₄ HCl Methanol	Sample Point Lat/Long and Comments Standard Comments Standard Comments
1 CONTINUE TOTAL		5-oxygenates requested are
	╼╟ <del>┈┈┈┈┈┈╎┈┈╏┈┈╏┈</del> ╟┈	MTBE, DIPE, ETBE, TAME, and
- 2 02111ASWINF 7218 3-37 X		
3 02111ASWEFF 7697 ( x		x x x x x
- 4 02111WGAC1 0W2 X	Ц У ',	x x x   x   x
r 5   02111 WEFF   0555   x		x x x x x
-6 02111MW2WINF 0413 X		x x x x x
7 02111 DPE WINK 0552 ) X		CXLX
8		
9 10 1B2 VS 3507 17130 X		Hold
	35	
Sampler's Name: Chuch Hill		
Sampler's Company: Stratus Environmental, Inc.	1 my/w/ 7/m/ 2	507 1095 ampan 3/5/07 110°
Shipment Date: 3507		
Shipment Method: Stuntus	_	
Shipment Tracking No:	pedf@broadbentinc.Com	
Special Instructions: Please cc results to b	ренциоговичения	
Custody Seals In Place: Yes /No/   Temp Blank/Yes	//No   Cooler Temp on Receipt: レ °F/C')	Trip Blank, Yos / No   MS/MSD Sample Submitted: Yes AD



13 March, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQC0080

Enclosed are the results of analyses for samples received by the laboratory on 03/05/07 11:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race

Senior Project Manager

CA ELAP Certificate # 1210

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





Stratus Environmental Inc. [Arco]	Project:	ARCO #2111, San Leandro, CA	MQC0080
3330 Cameron Park Dr., Suite 550	Project Number:	G0C28-0023	Reported:
Cameron Park CA, 95682	Project Manager:	Jay Johnson	03/13/07 12:20

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEAINF	MQC0080-01	Vapor	03/05/07 06:38	03/05/07 11:00
02111ASAEFF	MQC0080-02	Vapor	03/05/07 06:36	03/05/07 11:00
02111ASYSINF	MQC0080-03	Vapor	03/05/07 06:34	03/05/07 11:00
02111AGAC1	MQC0080-04	Vapor	03/05/07 06:32	03/05/07 11:00
02111AEFF	MQC0080-05	Vapor	03/05/07 06:30	03/05/07 11:00

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQC0080 Reported: 03/13/07 12:20

A set as	p. 4	Reporting		75.11 .11	B . 1	ъ .		NA ST. I	
Analyte	Result	Limit		Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEAINF (MQC0080-01) Vapor	Sampled: 03/0	5/07 06:38	Received:	03/05/07	11:00				
Gasoline Range Organics (C4-C12)	570		mg/m³ Air	10	7C05019	03/05/07	03/05/07 16:17	EPA 8015B/8021B	
Benzene	13	1.0	**	11	19	**	U	**	Pi
Toluene	ND	1.0	11	П	11	**	u	"	
Ethylbenzene	6.3	1.0	tt	Ð	11	Ħ	11	11	
Xylenes (total)	8.4	2.0	It	11	11	**	II .	H	
Methyl tert-butyl ether	90	5.0		11	11	**		)	
Surrogate: a,a,a-Trifluorotoluene		106 %	65-1	40	n	Ħ	н	"	
Surrogate: 4-Bromofluorobenzene		109 %	70-1	25	77	n	rr .	n	
Gasoline Range Organics (C4-C12)	160	24	ppmv	10	10	11	п	ij	
Benzene	3.9	0.31	n	n	н	11	u	U	P
Toluene	ND	0.27	**	u	11	**	II.	U	
Ethylbenzene	1.5	0.23	tt .	п	U	**	u	II	
Xylenes (total)	1.9	0.47	JI .	11	U	**	п	II	
Methyl tert-butyl ether	25	1.4	lt	1)	11	#	((	n	
Surrogate: a,a,a-Trifluorotoluene		106 %	65-1	40	H	ri	"	u	
Surrogate: 4-Bromofluorobenzene		108 %	70-1	25	"	н	n	n	
02111ASAEFF (MQC0080-02) Vapor	Sampled: 03/05	07 06:36	Received: (	3/05/07	11:00				
Gasoline Range Organics (C4-C12)	11		mg/m³ Air	1	7C05019	03/05/07	03/05/07 15:47	EPA 8015B/8021B	
Benzene	0.10	0.10	II	**	tt	ti	D	11	
Toluene	ND	0.10	П	10	П	н	н	υ	
Ethylbenzene	0.13	0.10	IJ	н	U.	ţi .	11	п	
Xylenes (total)	ND	0.20	11	11	U	u	11	ti .	
Methyl tert-butyl ether	10	0.50	I1				11	11	
Surrogate: a,a,a-Trifluorotoluene		96 %	65-1	40	Ħ	11	n	IT	
Surrogate: 4-Bromofluorobenzene		101 %	70-1.	25	"	"	"	**	
Gasoline Range Organics (C4-C12)	3.0	2.4	ppmv	n	u	n n	Ħ	D	
Benzene	0.032	0.031	11	II.	II	II .	11	I)	
Toluene	ND	0.027	11	**	u	"	11	II .	
Ethylbenzene	0.030	0.023	19	**	Ħ	u	n	u	
Xylenes (total)	ND	0.047	и	11	II	н	II .	U	
Methyl tert-butyl ether	2.8	0.14	н	Ħ	Ħ	Ħ	п	tt	
Surrogate: a,a,a-Trifluorotoluene		96 %	65-1	40	"	"	n	**	
Surrogate: 4-Bromofluorobenzene		101 %	70-1.	25	11	"	U	H	





Project: ARCO #2111, San Leandro, CA

MQC0080 Reported: 03/13/07 12:20

Project Number: G0C28-0023
Project Manager: Jay Johnson

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111ASYSINF (MQC0080-03) Vapor	Sampled: 03/0:	5/07 06:34	Received:	03/05/07	11:00				
Gasoline Range Organics (C4-C12)	100	50	mg/m³ Aír	5	7C05019	03/05/07	03/05/07 16:47	EPA 8015B/8021B	
Benzene	2.3	0.50	tt	II.	n	n	11	u	P
Toluene	ND	0.50	Ħ	u	ш	n	н	п	
Ethylbenzene	1.2	0.50	н	ш	IJ	*	H	п	
Xylenes (total)	1.6	1.0	п	11	n	H	11	II .	
Methyl tert-butyl ether	26	2,5	II	n	11	ı,	н	n .	
Surrogate: a,a,a-Trifluorotoluene		95 %	65-1	40	Ħ	11	11	ti ti	
Surrogate: 4-Bromofluorobenzene		97 %	70-1	25	n	11	rr .	n	
Gasoline Range Organics (C4-C12)	29	12	ppmv	5	4+	4	ii.	19	
Benzene	0.71	0.16	н	**	**	н	u	16	P
Toluene	ND	0.13	O O	19	н	41	Œ	**	
Ethylbenzene	0.27	0.12	10	u	α	U	u	**	
Xylenes (total)	0.36	0.24	Ħ	u	п	u	U	н	
Methyl tert-butyl ether	7.3	0.69	#1	fi	II	IJ	n n	н	
Surrogate: a,a,a-Trifluorotoluene		95 %	65-1	40	"	n	"	n	
Surrogate: 4-Bromofluorobenzene		96 %	70-1	25	н	'n	n	p	
02111AGAC1 (MQC0080-04) Vapor S	Sampled: 03/05/0	07 06:32 F	Received: 0.	3/05/07 11	1:00				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7C06001	03/06/07	03/06/07 09:14	EPA 8015B/8021B	
Benzene	ND	0.10	н	11	II .	**	**	1)	
Toluene	ND	0.10	19	H	U	*1	lt.	н	
Ethylbenzene	ND	0.10	10	19	U	н	tt	н	
Xylenes (total)	ND	0.20	11	11	II .	<b>91</b>	н	D	
Methyl tert-butyl ether	ND	0.50	#	11	U	*1	**	II	
Surrogate: a,a,a-Trifluorotoluene		99 %	65-1	40	n	n.	11	ti	
Surrogate: 4-Bromofluorobenzene		104 %	70-1	25	11	11	н	p	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	**	11	*1	tt	п	
Benzene	ND	0.031	3t	11	II .	ii.	ti	II	
Toluene	ND	0.027	11	**	0	*1	tt	U	
Ethylbenzene	ND	0.023	Ħ	**	n	*1	н	ıı .	
Xylenes (total)	ND	0.047	Ħ	11	II.	ti	u	n	
Methyl tert-butyl ether	ND	0.14	11	**	19	ęi –	u	H .	
Surrogate: a,a,a-Trifluorotoluene		99 %	65-1	40	n	"	**	11	
Surrogate: 4-Bromofluorobenzene		104 %	70-1	25	11	n	n	u	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023
Project Manager: Jay Johnson

MQC0080 Reported: 03/13/07 12:20

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111AEFF (MQC0080-05) Vapor	Sampled: 03/05/07	06:30 Re	ceived: 03/0	05/07 11:	00				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7C05019	03/05/07	03/05/07 15:10	EPA 8015B/8021B	
Benzene	0.17	0.10	н	u	10	II .	U	u	
Toluene	ND	0.10	II	Ħ	Ħ	n	H	u	
Ethylbenzene	0.28	0.10	U	0	**	н	11	п	
Xylenes (total)	ND	0.20	U	u	ü	н	**	Ü	
Methyl tert-butyl ether	ND	0.50	II	u u	II .	**	**	II .	
Surrogate: a,a,a-Trifluorotoluene	•	99 %	65-1	40	н	11	11	ti	
Surrogate: 4-Bromofluorobenzene		102 %	70-1	25	"	"	"	tt	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	n	Ħ	Ħ	tt	n	
Benzene	0.054	0.031	Ħ	**	11	II	II	n	
Toluene	ND	0.027	н	h	**	II .	II .	n	
Ethylbenzene	0.065	0.023	tt	Ħ	n	U	u	19	
Xylenes (total)	ND	0.047	Ħ	11	91	II .	II .	11	
Methyl tert-butyl ether	ND	0.14	п	#1	Ħ	n n	II	H	
Surrogate: a,a,a-Trifluorotoluene		99 %	65-1	40	"	n	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	70-1	25	H	н	u	tt	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQC0080 Reported: 03/13/07 12:20

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

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

lank (7C05019-BLK1)			]	Prepared & Ar	nalyzed: 03/05/	07	
asoline Range Organics (C4-C12)	ND	12	ppmv				
asoline Range Organics (C4-C12)	ND	50	mg/m³ Air				
enzene	ND	0.50	II .				
enzene	ND	0.16	ppmv				
duene	ND	0.50	mg/m³ Air				
oluene	ND	0.13	ppmv				
hylbenzene	ND	0.50	mg/m³ Air				
hylbenzene	ND	0.12	ppmv				
lenes (total)	ND	1.0	mg/m³ Air				
'lenes (total)	ND	0.24	ppmv				
ethyl tert-butyl ether	ND	2.5	mg/m¹ Air				
thyl tert-butyl ether	ND	0.69	ppmv				
rogate: a,a,a-Trifluorotoluene	38.1	***************************************	mg/m³ Air	40.0	95	65-140	
rogate: a,a,a-Trifluorotoluene	6.38		ppmv	6.70	95	65-140	
ogale: 4-Bromofluorobenzene	39.8		mg/m³ Air	40.0	100	70-125	
ogate: 4-Bromofluorobenzene	5.56		ррту	5.59	99	70-125	
oratory Control Sample (7C05019-BS1)			]	Prepared & Ar	nalyzed: 03/05/	)7	
oline Range Organics (C4-C12)	72.5	12	ppmv	78.0	93	70-115	
oline Range Organics (C4-C12)	255	50	mg/m³ Air	275	93	70-115	
zene	1.54	0.16	ppmv	1.52	101	80-150	
zene	4.90	0.50	mg/m³ Air	4.85	101	80-150	
ene	5.77	0.13	ppmv	6.25	92	75-125	
ene	21.7	0.50	mg/m³ Air	23.5	92	75-125	
lbenzene	1.05	0.12	ppmv	80.1	97	75-135	
lbenzene	4.55	0.50	mg/m³ Air	4.70	97	75-135	
nes (total)	5.69	0.24	ppmv	6.12	93	75-135	
enes (total)	24.7	1.0	mg/m³ Air	26.5	93	75-135	
yl tert-butyl ether	1.48	0.69	ppmv	1.81	82	60-140	
nyl tert-butyl ether	5.33	2.5	mg/m³ Air	6.50	82	60-140	
ogate: a,a,a-Trifluorotoluene	6.11		ppmv	6.70	91	65-140	
ogate: a,a,a-Trifluorotoluene	<i>36.5</i>		mg/m³ Air	40.0	91	65-140	
ogate: 4-Bromofluorobenzene	5.57		ppmv	5.59	100	70-125	
rogate: 4-Bromofluorobenzene	39.9		mg/m³ Air	40.0	100	70-125	





Project: ARCO #2111, San Leandro, CA

MQC0080 Reported:

Project Number: G0C28-0023 Project Manager: Jay Johnson

03/13/07 12:20

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit		Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7C05019 - EPA 5030B [P/T]	/ EPA 8015B/8	3021B								
Laboratory Control Sample Dup (7C0	5019-BSD1)	Prepared & Analyzed: 03/05/07								
Gasoline Range Organics (C4-C12)	268	50	mg/m³ Air	275		97	70-115	5	35	***************************************
Gasoline Range Organics (C4-C12)	76.0	12	ppmv	78.0		97	70-115	5	35	
Benzene	5,11	0.50	mg/m¹ Air	4.85		105	80-150	4	35	
Benzene	1.60	0.16	ppmv	1.52		105	80-150	4	35	
l'oluene l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle l'alle	22,5	0.50	mg/m³ Air	23.5		96	75-125	4	30	
<b>Foluene</b>	5,99	0.13	ppmv	6.25		96	75-125	4	30	
Ethylbenzene	4.72	0,50	mg/m³ Air	4.70		100	75-135	4	30	
Ethylbenzene	1,09	0.12	ppmv	1.08		101	75-135	4	30	
Xylenes (total)	25.6	1.0	mg/m³ Air	26.5		97	75-135	4	30	
Xylenes (total)	5.90	0,24	ppmv	6.12		96	75-135	4	30	
Methyl tert-butyl ether	1.51	0.69	*1	1.81		83	60-140	2	30	
Methyl tert-butyl ether	5.42	2,5	mg/m³ Air	6.50		83	60-140	2	30	
Surrogate: a,a,a-Trifluorotoluene	37.6		n	40.0		94	65-140		***************************************	
Surrogate: a,a,a-Trifluorotoluene	6.30		ppmv	6.70		94	65-140			
Surrogate: 4-Bromofluorobenzene	40.8		mg/m³ Air	40.0		102	70-125			
Surrogate: 4-Bromofluorobenzene	5.70		ppmv	5.59		102	70-125			
Batch 7C06001 - EPA 5030B [P/T]	/ EPA 8015B/8	3021B								
Blank (7C06001-BLK1)			•	Prepared	& Analyze	ed: 03/06/0	07			
Gasoline Range Organics (C4-C12)	ND	12	ppmv	•				***************************************	***************************************	
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air							
Benzene	ND	0,50	11							
Benzene	ND	0.16	ppmv							
<b>Foluene</b>	ND	0.13	**							
Toluene	ND	0.50	mg/m³ Air							
Ethylbenzene	ND	0.12	ppmv							
Ethylbenzene	ND	0.50	mg/m³ Air							
Xylenes (total)	ND	0.24	ppmv							
Xylenes (total)	ND	1.0	mg/m³ Air							
Methyl tert-butyl ether	ND	0.69	ppmv							
Methyl tert-butyl ether	ND	2.5	mg/m³ Air							
Surrogate: a,a,a-Trifluorotoluene	39.7		11	40,0	***************************************	99	65-140			
Surrogate: a,a,a-Trifluorotoluene	6.64		ppmv	6.70		99	65-140			
Surrogate: 4-Bromofluorobenzene	40.0		mg/m³ Air	40.0		100	70-125			
Surrogate: 4-Bromofluorobenzene	5.59		ppniv	5.59		100	70-125			

TestAmerica - Morgan Hill, CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.





Project: ARCO #2111, San Leandro, CA

Spike

Source

Project Number: G0C28-0023 Project Manager: Jay Johnson MQC0080 Reported: 03/13/07 12:20

RPD

%REC

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

Reporting

1		Reporting		ahire	audice		TONEC		KLD.	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7C06001 - EPA 5030B [P/T]	/ EPA 8015B/8	3021B								
Laboratory Control Sample (7C06001-			Prepared & Analyzed: 03/06/07							
Gasoline Range Organics (C4-C12)	263	50	mg/m¹ Air	275		96	70-115			
Gasoline Range Organics (C4-C12)	74.7	12	ppmv	78.0		96	70-115			
Benzene	4.87	0.50	mg/m³ Air	4.85		100	80-150			
Benzene	1.53	0.16	ppmv	1.52		101	80-150			
Coluene Coluene	21.5	0.50	mg/m³ Air	23.5		91	75-125			
l'oluene	5.71	0.13	ppmv	6.25		91	75-125			
Ethylbenzene	1.03	0.12	11	1.08		95	75-135			
Ethylbenzene	4.46	0.50	mg/m³ Air	4.70		95	75-135			
Xylenes (total)	5.61	0.24	ppmv	6.12		92	75-135			
Xylenes (total)	24.3	1.0	mg/m³ Air	26.5		92	75-135			
Methyl tert-butyl ether	1.38	0,69	ppmv	1.81		76	60-140			
Methyl tert-butyl ether	4.97	2.5	mg/m³ Air	6,50		76	60-140			
Surrogate: a,a,a-Trifluorotoluene	36.9		<i>II</i>	40.0		92	65-140			
Surrogate: a,a,a-Trifluorotoluene	6.19		ppmv	6.70		92	65-140			
Surrogate: 4-Bromofluorobenzene	40.8		mg/m³ Air	40.0		102	70-125			
Surrogate: 4-Bromofluorobenzene	5.71		ppmv	5.59		102	70-125			
Laboratory Control Sample Dup (7C0	6001-BSD1)	Prepared & Analyzed: 03/06/07								
Gasoline Range Organics (C4-C12)	261	50	mg/m³ Air	275		95	70-115	0.8	35	
Gasoline Range Organics (C4-C12)	74.0	12	ppniv	78.0		95	70-115	0.9	35	
Benzene	5.03	0.50	mg/m³ Air	4.85		104	80-150	3	35	
Benzene	1.58	0.16	ppmv	1.52		104	80-150	3	35	
l'oluene	22.1	0.50	mg/m³ Air	23.5		94	75-125	3	30	
Toluene	5.87	0.13	ppmv	6.25		94	75-125	3	30	
Ethylbenzene	4.59	0.50	mg/m³ Air	4.70		98	75-135	3	30	
Ethylbenzene	1.06	0.12	ppmv	1.08		98	75-135	3	30	
Xylenes (total)	24.9	0.1	mg/m³ Air	26.5		94	75-135	2	30	
Xylenes (total)	5.74	0.24	ppmv	6.12		94	75-135	2	30	
Methyl tert-butyl ether	5.14	2.5	mg/m³ Air	6.50		79	60-140	3	30	
Methyl tert-butyl ether	1.43	0.69	ppmv	1.81		79	60-140	4	30	
Surrogate: a,a,a-Trifluorotoluene	37.5		mg/m³ Air	40.0		94	65-140			
Surrogate: a,a,a-Trifluorotoluene	6.28		ppmv	6.70		9.4	65-140			
Surrogate: 4-Bromofluorobenzene	40.5		mg/m³ Air	40.0		101	70-125			
Surrogate: 4-Bromofluorobenzene	5.66		ppniv	5.59		101	70-125			





Stratus Environmental Inc. [Arco] Project: ARCO #2111, San Leandro, CA MQC0080
3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0023 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 03/13/07 12:20

#### Notes and Definitions

PI Primary and confirm results varied by > than 40% RPD

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

# Atlantic Richfield Company

A BP affiliated company

### Chain of Custody Record

**Project Name:** 

(	RU	S
•		

On-site	Time:	0500	Тетр:	48
Off-site	Time:	0730	Temp:	417
Sky Con	ditions:	Chan		

Direction:

BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > Alameda State or Lead Regulatory Agency:

ARCO Facility No. 2111

California Regional Water Quality Control Board

Requested Due Date (mm/dd/yy): 24 hours for Effluent & STD for others

Wind Speed:

Meteorological Events:

Lab Name: TestAmerica	BP/AR Facility No	o.: 2111		Consultant/Contractor:	Stratus Environmental, Inc.
Address: 885 Jarvis Drive	BP/AR Facility Ad	ddress: 1156 Davis St., San Leandro	<u> </u>	Address: 3330 Camer	on Park Drive, Suite 550
Morgan Hill, CA 95937	Site Lat/Long:			Cameron Pa	rk, CA 95682
Lab PM: Lisa Race	California Global II	ID No.: T0600101764		Consultant/Contractor Projec	t No.: E2111-03
Tele/Fax: 408-782-8156/ 408-782-6308	Enfos Project No.:	: G0C28-0023		Consultant/Contractor PM:	Jay Johnson
BP/AR PM Contact: Paul Supple	Provision or OOC	(circle one) Provision	I	Tele/Fax: (530) 676-60	000 / (530) 676-6005
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS:	03-O&M ·	R	Report Type & QC Level:	Level I with EDF
San Ramon, CA	Sub Phase/Task:	03-Analytical	E	E-mail EDD To: shayes	@stratusinc.net
Tele/Fax: 925-275-3506/925-275-3815	Cost Element:	Subcontractor Cost	I	nvoice to: Atlantic Richfield	1 Co.
Lab Bottle Order No: Matr		Preservative	Requested Analys	is _ Turnaround Time	
Item Sample Description Time Date Mater/Liquid	HPC DOST Eaboratory No.	###	GRO by 8015 BTEX by 8260 MTBE by 8260	24-hours Standard	Sample Point Lat/Long and Comments
.1 02111DPEAINF 0638 3507	b· }	2	x x x	x	
2 02111ASAEFF 0636	UV	2	x x x	x	
-3 02111ASYSINF 043H		2	x x x	x	
4 02111AGAC1 2632	u	2	x x x	x	
5 02111AEFF 0130 J		2	x x x	X	
6					
7					
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9					
10					
Sampler's Name: / 26/13 Hill	- /ARel	elinquished By / Affiliation	Date Time	. Accepted By / A	ffiliation Date Time
Sampler's Company: Stratus Environmental, Inc.	mille	of States	35071050	- impani	3/5/67 1100
Shipment Date: 3-5-07				- Jane	7//
Shipment Method: Strutes					
Shipment Tracking No:					
ecial Instructions: Please cc results	bpedf@broadbenting	ıc.Com			
Custody Seals In Place: Ves No. 1 Temp Blank:	/as (No. ) Coola	er Temp on Paceint: D/k °F/C	I Trin Blank: Va	CANO I MEMED S	Sample Submitted: Ves (No)

### TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME:  REC. BY (PRINT)  WORKORDER:	Shatug EB MGC0080		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	3-5-67 1100 3-5-			For Regulatory Purposes?  DRINKING WATER YES NO  WASTE WATER YES NO		
CIRCLE THE APPRO	PRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION	PRESER VATIVE	рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent								
	Intact /- Broken*	-				۱ <u></u>			
2. Chain-of-Custody	Present/Absent*				<b> </b>	۱ <u></u>			
3. Traffic Reports or				<u> </u>		! 		<b></b>	
Packing List:	Present / Absent				<b></b>	!	ļi		
4. Alrbill:	Airbill / Sticker				<u> </u>	\		/	
	Present / Absent		1. 1.		<b></b>	<u></u>	<del></del>		
5. Airbiil #:				~:		ł	0//		
6. Sample Labels:	Present / Absent			<u> </u>	<b></b>	1-20-			
7. Sample IDs:	Listed / Not Listed			<b></b>	<b></b>	4	<b> </b>	ļ	
	on Chain-of-Custody	<u> </u>		<b></b>	400	<u>-</u>	-		
8. Sample Condition:	Intacty Broken*/			<u> </u>	1//	·	1, ,	<del>                                     </del>	
	Leaking*			· · · · ·	<del>                                     </del>	L	<del>                                     </del>	<del></del>	
9. Does information on			· · · · -	***	1	·	<del> </del>		
traffic reports and s	-			35	<del>  </del>	·	<del> </del>	<del></del>	
agree?	Yes No*	ļ		<del>  "/</del>	<del>  </del>	!	-		
10. Sample received withi				<u> </u>	<del> </del>	·	<del></del>		
hold time?	Yes/No*			<del> </del>		<u> </u>	<del> </del>	<del></del>	•• •
11. Adequate sample volu		<u> </u>			<del> </del>	<b>!</b> _	-	<b></b>	
received?	Yes No*	<u>                                     </u>	" ' '	<del> </del>	<del>                                     </del>	<u> </u>	<del> </del>		
12. Proper preservatives			<del></del>	<del> </del>	<del>  </del>	<u>-</u>	<del>                                     </del>		
13. Trip Blank / Temp Bla	ink Received?	<u> </u>	<del>-/</del>		<del> </del>	<u>'</u>	<del> </del>	<del>                                     </del>	
(circle which, if yes)	Yes/No				<del>  </del>	<b>'</b> ——,	<del> </del>		
14. Read Temp:	— <i>ph</i>		/		<del> </del>	<b>!</b>			
Corrected Temp:	· · · · · · · · · · · · · · · · · · ·	<del></del>		-		<u>'</u>	<del>                                     </del>		
is corrected temp 4 +		<del></del>		-		<u> </u>	<del></del>		
(Acceptance range for semples n	equiring thermal pres.)	<u> </u>			<del>                                     </del>	<b>!</b>	<del> </del>	<del>                                     </del>	
**Exception (if any): MET	IALS / DFF ON ICE			<del>                                     </del>	<del> </del>	\	1		
or Problem COC	Cella.				************	William !			



12 March, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQC0292

Enclosed are the results of analyses for samples received by the laboratory on 03/09/07 10:05. 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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQC0292 Reported: 03/12/07 11:05

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111AEFF	MQC0292-01	Vapor	03/08/07 05:10	03/09/07 10:05

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQC0292 Reported: 03/12/07 11:05

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111AEFF (MQC0292-01) Vapor	Sampled: 03/08/07 (	5:10 Re	ceived: 03/	09/07 10:	05				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7C10001	03/10/07	03/10/07 13:43	EPA 8015B/8021B	
Benzene	ND	0.10	п	н	**	H	**	**	
Toluene	ND	0.10	H	U	tt	Ħ	н	Ħ	
Ethylbenzene	ND	0.10	11	U	n	11	н	Ħ	
Xylenes (total)	ND	0.20	19	II .	п	#1	0	11	
Methyl tert-butyl ether	ND	0.50	ŧ1	D	U	u	II .	q	
Surrogate: a,a,a-Trifluorotoluene		96 %	65-1	40	11	tt	,,	11	
Surrogate: 4-Bromofluorobenzene		103 %	70-1	25	"	"	"	н	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	**	**	0	II .	u	
Benzene	ND	0.031	11	"	п	II .	U	Ħ	
Toluene	ND	0.027	п	**	19	II .	11	**	
Ethylbenzene	ND	0.023	U	**	11	U	II .	11	
Xylenes (total)	ND	0.047	U	77	n	U	II	#	
Methyl tert-butyl ether	ND	0.14	п	**	u	II .	n	н	
Surrogate: a,a,a-Trifluorotoluene		96 %	65-1	40	**	n	n	и	
Surrogate: 4-Bromofluorobenzene		103 %	70-1	25	**	Ħ	r#	11	





Analyte

Project: ARCO #2111, San Leandro, CA

Spike

Level

Source

Result

%REC

%REC

Limits

RPD

MQC0292 Reported: 03/12/07 11:05

Notes

RPD

Limit

Project Number: G0C28-0023
Project Manager: Jay Johnson

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

Units

Reporting

Limit

Result

6.51

41.6

5.81

Blank (7C10001-BLK1)				Prepared & A	nalyzed: 03/10/0	07
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air			
Gasoline Range Organics (C4-C12)	ND	12	ppmy			
Benzene	ND	0.50	mg/m³ Air			
Benzene	ND	0.16	ppmv			
Toluene	ND	0.50	mg/m³ Air			
Toluene	ND	0.13	ppmv			
Ethylbenzene	ND	0.50	mg/m³ Air			
Ethylbenzene	ND	0.12	ppmv			
Xylenes (total)	ND	1.0	mg/m³ Air			
Xylenes (total)	ND	0.24	ppmv			
Methyl tert-butyl ether	ND	2.5	mg/m³ Air			
Methyl tert-butyl ether	ND	0.69	ppmv			
Surrogate: a,a,a-Trifluorotoluene	38.3		mg/m³ Air	40.0	96	65-140
Surrogate: a,a,a-Trifluorotoluene	6.41		ppniv	6.70	96	65-140
Surrogate: 4-Bromofluorobenzene	<i>39.8</i>		mg/m³ Air	40.0	100	70-125
urrogate: 4-Bromofluorobenzene	5.57		ppmv	5.59	100	70-125
aboratory Control Sample (7C10001-BS1)				Prepared & A	nalyzed: 03/10/0	07
asoline Range Organics (C4-C12)	252	50	mg/m³ Air	275	92	70-115
Gasoline Range Organics (C4-C12)	71.6	12	ppmv	78.0	92	70-115
Benzene	4.91	0.50	mg/m³ Air	4.85	101	80-150
Benzene	1.54	0.16	ppmv	1.52	101	80-150
Coluene	21.7	0.50	mg/m³ Air	23.5	92	75-125
l'oluene	5.77	0.13	ppmv	6.25	92	75-125
Ethylbenzene	4.53	0.50	mg/m³ Air	4.70	96	75-135
Ethylbenzene	1.04	0.12	ppmv	1.08	96	75-135
Kylenes (total)	24.7	1.0	mg/m³ Air	26.5	93	75-135
Kylenes (total)	5.70	0,24	ppmv	6.12	93	75-135
Methyl tert-butyl ether	4.96	2.5	mg/m³ Air	6.50	76	60-140
Methyl tert-butyl ether	1.38	0.69	ppmv	1.81	76	60-140
Surrogate: a,a,a-Trifluorotoluene	38.9		mg/m³ Air	40.0	97	65-140

6.70

40.0

5.59

ppmv

mg/m3 Air

ppmy

Surrogate: a,a,a-Trifluorotoluene

Surrogate: 4-Bromofluorobenzene

Surrogate: 4-Bromofluorobenzene

65-140

70-125

70-125

104

104





Project: ARCO #2111, San Leandro, CA

MQC0292 Reported: 03/12/07 11:05

Project Number: G0C28-0023
Project Manager: Jay Johnson

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

		Reporting		Spike	Source		%REC		RPD	1
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
	•									

Laboratory Control Sample Dup (7C10	0001-BSD1)	<b>01-BSD1)</b> Prepared & Analyzed: 03/10/07								
Gasoline Range Organics (C4-C12)	263	50 mg/m³ /	Air 275	96	70-115	4	35			
Gasoline Range Organics (C4-C12)	74.7	12 ppmv	78.0	96	70-115	4	35			
Benzene	4.95	0.50 mg/m ³ /	Air 4.85	102	80-150	0.8	35			
Benzene	1.55	0.16 ppmv	1.52	102	80-150	0.6	35			
Toluene	5.88	0.13 "	6.25	94	75-125	2	30			
Toluene	22.1	0.50 mg/m³ /	Air 23.5	94	75-125	2	30			
Ethylbenzene	4.62	0.50 "	4.70	98	75-135	2	30			
Ethylbenzene	1.07	0.12 ppmv	1.08	99	75-135	3	30			
Xylenes (total)	25.2	1.0 mg/m³ A	Air 26.5	95	75-135	2	30			
Xylenes (total)	5.81	0.24 ppmv	6.12	95	75-135	2	30			
Methyl tert-butyl ether	4.88	2.5 mg/m ³ /	Nir 6.50	75	60-140	2	30			
Methyl tert-butyl ether	1.36	0.69 ppmv	1.81	75	60-140	1	30			
Surrogate: a,a,a-Trifluorotoluene	37.7	mg/m³ /	lir 40.0	94	65-140					
Surrogate: a,a,a-Trifluorotoluene	6.32	ppmv	6.70	9.4	65-140					
Surrogate: 4-Bromofluorobenzene	41.5	mg/m³ A	tir 40.0	104	70-125					
Surrogate: 4-Bromofluorobenzene	5.80	ppmv	5.59	104	70-125					





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQC0292 Reported: 03/12/07 11:05

#### Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR

Not Reported

dry

Sample results reported on a dry weight basis

RPD

Relative Percent Difference

### Atlantic Richfield Company

A BP affiliated company

Custody Seals In Place: Yes (No

### Chain of Custody Record

Project Name: ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

Temp Blank: Yes (No.

RWQCB - San Francisco

Requested Due Date (mm/dd/yy):

Rush

On-site Time: 0450 Temp:40
Off-site Time: Temp:
Sky Conditions: Climate Meteorological Events:
Wind Speed: Direction:

T - L 3	Vame: TestAmerica					15																					
!!	ess: 885 Jarvis Drive					-		BP/AR Facility No		211													ractor.		Stratus Environme		
}						∦-		BP/AR Facility Ac	dres	5:	115	6 Da	avis S	treet,	San	Lea	adro		•	Add	ress:	3:	<u>330 C</u>	ame	ron Park Drive, S	uite 550	
	an Hill, CA 95937					-		Site Lat/Long:																	ark, CA 95682		
	M: Lisa Race	30.75				-		California Global I	D N	D.;			0176							Con	sultant	/Cont	ractor	Proje	ect No.:		
	Fax: 408-782-8156 408-782-630	J8 (fax)				_#		Enfos Project No.:			G0	C28-	-0023							Con	sultant	/Cont	ractor	PM:	Jay Jol	nson	
	R PM Contact: Paul Supple					-		Provision or OOC	(circ	le one)			Pro	visio	1					Tele	Fax:	(5	30) <del>6</del>	i76-6	6000 / (530) 676-6	005	
Address: 2010 Crow Canyon Place, Suite 150					-	_	Phase/WBS:		03-0 &	M									Repo	ort Typ	ne & (	QC Le	vel:	Level	I with EDF		
	San Ramon, CA					_  _		Sub Phase/Task:		03-Anal	ytical									E-m	ail ED	D To:	cje	ewitt(	@stratusinc.net		
Tele/							<u>[</u>	Cost Element:		01-Cont	ractor	labo	or							Invo	ice to:	Atlar	ntic Ri	ichfie	eld Co.		
Lab )	Bottle Order No:			╧	Ma	trix					Pre	serv	ative						Reques	ted Ar	alysis	1			7		
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air		Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO3	HCI	Methanol		CRO 8014	既然	MBEBLO							Sample Poir	nt Lat/Long mments	and
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	nent Method: Fed &	<b>火</b>																		1			**********				
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ri:	il Instructions:	Please o	cc result	s to	rmill	er@t	bro	adbentinc.com							************											<del></del>	

Cooler Temp on Receipt: - °F/C

Trip Blank: Yes /(No)

### TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: Arco REC. BY (PRINT) A.M. WORKORDER: UOCO292		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	3-9-0 1005 3-9-0			ı	For Regula DRINKING WASTE WA	$\sim$
CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Absent	,							
Intact / Broken*								
2. Chain-of-Custody Present / Absent*								
3. Traffic Reports or								-
Packing List: Present / Absent		•						
4. Airbill: Airbill / Sticker								
Present / Absent		,						
5. Airbill #: 8592 4855 0907 Fed Ex								
6. Sample Labels: Present / Absent								
7. Sample IDs: Listed / Not Listed				4				
on Chain-of-Custody				4				·
8. Sample Condition: (Intac) / Broken* /		,	· · · /	20//				
Leaking*				7/				
9. Does information on chain-of-custody,		•						
traffic reports and sample labels			V 6.7					
agree? (Yes / No*			1/					
10. Sample received within		<u> </u>						
hold time? Yes/ No*								
11. Adequate sample volume								-
received? Yes / No*								
12. Proper preservatives used? Yes / No*					<u>.</u>			
13. Trip Blank / Temp Blank Received?		/ .	•					
(circle which, if yes) Yes / No*								
14. Read Temp:								
Corrected Temp:								
Is corrected temp 4 +/-2°C? Yes / No**								
(Acceptance range for samples requiring thermal pres.)		,						
'Exception (if any): METALS / DFF ON ICE		•						
Problem COC AV bag								
	*IF CIRC	CLED, CONTACT PROJEC	T MANAGER	AND ATT	ACH F	ECORD (	)F RESOLU	TION.



19 March, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQC0083

Enclosed are the results of analyses for samples received by the laboratory on 03/05/07 11:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race

Senior Project Manager

CA ELAP Certificate # 1210

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





Stratus Environmental Inc. [Arco] Project: ARCO #2111, San Leandro, CA MQC0083
3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0023 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 03/19/07 13:26

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111ASWINF	MQC0083-01	Water	03/05/07 06:18	03/05/07 11:00
02111ASWEFF	MQC0083-02	Water	03/05/07 06:07	03/05/07 11:00
02111WGAC1	MQC0083-03	Water	03/05/07 06:02	03/05/07 11:00
02111WEFF	MQC0083-04	Water	03/05/07 05:55	03/05/07 11:00
02111MW2WINF	MQC0083-05	Water	03/05/07 06:13	03/05/07 11:00
02111DPEWINF	MQC0083-06	Water	03/05/07 05:52	03/05/07 11:00
TB2113507	MQC0083-07	Water	03/05/07 06:20	03/05/07 11:00

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.





Project: ARCO #2111, San Leandro, CA

MQC0083 Reported: 03/19/07 13:26

Project Number: G0C28-0023 Project Manager: Jay Johnson

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

		Reporting	•						
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQC0083-01) Water	Sampled: 03/0	5/07 06:18 1	Received:	03/05/07	11:00				
Gasoline Range Organics (C4-C12)	1500	500	ug/l	10	7C05005	03/05/07	03/05/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		101 %	60-	145	"	#	"	n	
02111ASWEFF (MQC0083-02) Water	Sampled: 03/0	5/07 06:07	Received:	03/05/07	11:00				
Gasoline Range Organics (C4-C12)	220	50	ug/l	1	7C05005	03/05/07	03/05/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		104 %	60-	145	"	,,	n	11	
02111WGAC1 (MQC0083-03) Water	Sampled: 03/05	/07 06:02 R	Received:	03/05/07 1	1:00				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7C05005	03/05/07	03/05/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-	145	rt	,,	"	"	
02111WEFF (MQC0083-04) Water Sa	impled: 03/05/0	7 05:55 Red	ceived: 03	/05/07 11:	:00				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	ı	7C05005	03/05/07	03/05/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		104 %	60	145	ıı	n	n	"	
02111MW2WINF (MQC0083-05) Wate	r Sampled: 0	3/05/07 06:13	Receive	d: 03/05/	07 11:00				
Gasoline Range Organics (C4-C12)	2600	1000	ug/l	20	7C05005	03/05/07	03/05/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		106 %	60-	145	n	p	n	n	
02111DPEWINF (MQC0083-06) Water	Sampled: 03,	05/07 05:52	Received	1: 03/05/0	7 11:00				
Gasoline Range Organics (C4-C12)	1500	500	ug/l	10	7C05005	03/05/07	03/05/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		101 %	60-	145	rr .	u	II	n	





Project: ARCO #2111, San Leandro, CA

MQC0083 Reported: 03/19/07 13:26

Project Number: G0C28-0023 Project Manager: Jay Johnson

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

<b>1.</b>	<b>.</b>	Reporting		53 V	Pa . 1				
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111ASWINF (MQC0083-01) Water	Sampled: 03/05.	/07 06:18	Received: 0.	3/05/07	11:00				
tert-Amyl methyl ether	5.6	5.0	ug/l	10	7C05005	03/05/07	03/05/07	EPA 8260B	
Benzene	20	5.0	ti	I#	II	It	14	ii .	
tert-Butyl alcohol	1600	200	ri .	It	41	II .	н	D .	
Di-isopropyl ether	ND	5.0	U	И	*1	н	н	н	
Ethyl tert-butyl ether	ND	5.0	ų	И	Ħ	н	н	H	
Ethylbenzene	16	5.0	H	#1	ti ti	н	н	H	
Methyl tert-butyl ether	1600	5.0	*	"	U	Ħ	"	"	
Toluene	ND	5.0	I+	**	U	#1	и	II .	
Xylenes (total)	15	5.0	ıt	ti		ti	n	"	
Surrogate: Dibromofluoromethane		94 %	75-13	0	11	11	σ	n	
Surrogate: 1,2-Dichloroethane-d4		101 %	60-14	5	n	11	"	"	
Surrogate: Toluene-d8		93 %	70-13	0	n	ır	и	n	
Surrogate: 4-Bromofluorobenzene		78 %	60-12	0	11	11	"	n	
02111ASWEFF (MQC0083-02) Water	Sampled: 03/05	/07 06:07	Received: 0	3/05/07	11:00				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7C05005	03/05/07	03/05/07	EPA 8260B	
Benzene	ND	0.50	If	**	u	*1	н	ti	
tert-Butyl alcohol	1600	20	It .	Ħ	u	11	н	ti	
Di-isopropyl ether	ND	0.50	и	a	н	п	н	U	
Ethyl tert-butyl ether	ND	0.50	и	*1	u	H	п	u	
Ethylbenzene	ND	0.50	н	*1	u	11	"	U	
Methyl tert-butyl ether	200	0.50	It .	et e	u	11	*1	U	
Toluene	ND	0.50	li .	п	U	ri	#1	U	
Xylenes (total)	ND	0.50	н	0	Q	q	Ħ	11	
Surrogate: Dibromofluoromethane		97 %	75-13	0	"	11	n	"	
Surrogate: 1,2-Dichloroethane-d4		104 %	60-14	5	*	**	n	n	
Surrogate: Toluene-d8		92 %	70-13	0	#	"	n	"	
Surrogate: 4-Bromofluorobenzene		75 %	60-12	0	"	tt	H	#	





Project: ARCO #2111, San Leandro, CA

MQC0083 Reported: 03/19/07 13:26

Project Number: G0C28-0023 Project Manager: Jay Johnson

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111WGAC1 (MQC0083-03) Water	Sampled: 03/05/	07 06:02 R	teceived: 03	/05/07 1	1:00		•		
tert-Amyl methyl ether	ND	0.50	ug/l	1	7C05005	03/05/07	03/05/07	EPA 8260B	
Benzene	ND	0.50	ti	+1	0	D	II .	н	
tert-Butyl alcohol	ND	20	tt	Ħ	0	n	U	н	
Di-isopropyl ether	ND	0.50	u	U	D	19	п	и	
Ethyl tert-butyl ether	ND	0.50	U	Ð	0	H	U	Л	
Ethylbenzene	ND	0.50	U	Ü	Ħ	H	II .	Ц	
Methyl tert-butyl ether	1.2	0.50	II .	ti	11	11	п	н	
Toluene	ND	0.50	"	ŧI	"	11	п	It	
Xylenes (total)	ND	0.50	u	0	D	н	ii .	It	
Surrogate: Dibromofluoromethane		102 %	75-13	0	n	n	n	"	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-14	5	"	"	11	"	
Surrogate: Toluene-d8		88 %	70-13	О	n	n	n	n	
Surrogate: 4-Bromofluorobenzene		75 %	60-12	0	n	n	11	#	
02111WEFF (MQC0083-04) Water S	Sampled: 03/05/07	05:55 Rec	eived: 03/0	5/07 11:	00				
tert-Amyl methyl ether	ND	0.50	ug/l	ı	7C05005	03/05/07	03/05/07	EPA 8260B	
Benzene	ND	0.50	IJ	(1	17	I†	U	It	
tert-Butyl alcohol	ND	20	U	U	I <del>†</del>	I <del>t</del>	ij	If	
Di-isopropyl ether	ND	0.50	19	D	Iŧ	H	n	Ĭſ	
Ethyl tert-butyl ether	ND	0.50	"	1+	и	н	I†	н	
Ethylbenzene	ND	0.50	14	17	"	H	11	и	
Methyl tert-butyl ether	ND	0.50	И	l#	н	Ħ	)t	и	
Toluene	ND	0.50	H	И	Ħ	Ħ	И	и	
Xylenes (total)	ND	0.50	11	11	11	Ħ	)(	И	·····
Surrogate: Dibromofluoromethane		96 %	75-13	0	"	11	ır	II .	
Surrogate: 1,2-Dichloroethane-d4		104 %	60-14	5	11	н	ir.	11	
Surrogate: Toluene-d8		86 %	70-13	0	n	n	"	II.	
Surrogate: 4-Bromofluorobenzene		76 %	60-12	0	"	11	"	11	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQC0083 Reported: 03/19/07 13:26

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111MW2WINF (MQC0083-05) Water	Sampled: 03/	05/07 06:13	Receive	ed: 03/05/0	7 11:00				
tert-Amyl methyl ether	ND	10	ug/l	20	7C05005	03/05/07	03/05/07	EPA 8260B	***************************************
Benzene	71	10	"	n	11	н	ų.	It.	
tert-Butyl alcohol	1900	400	II .	n	H	n	u	n	
Di-isopropyl ether	ND	10	II	Ŋ	I <del>†</del>	n	a	n	
Ethyl tert-butyl ether	ND	10	п	Ŋ	11	I)	н	ø	
Ethylbenzene	64	10		ii	17	U	п	U	
Methyl tert-butyl ether	2000	10	u	n	n	U	H	0	
Toluene	ND	10	u	n	11	II .	(I	U	
Xylenes (total)	34	10	п	11	н	U			
Surrogate: Dibromofluoromethane		98 %	75-	130	"	"	n	n	
Surrogate: 1,2-Dichloroethane-d4		106 %	60-	145	"	"	"	n	
Surrogate: Toluene-d8		97 %	70-	130	rt	Ħ	u	n	
Surrogate: 4-Bromofluorobenzene		87 %	60-	120	"	n	n	n	
02111DPEWINF (MQC0083-06) Water	Sampled: 03/0	5/07 05:52	Receive	d: 03/05/0°	7 11:00				
tert-Amyl methyl ether	6.9	5.0	ug/l	10	7C05005	03/05/07	03/05/07	EPA 8260B	
Benzene	8.5	5.0	36	и	**	н	ft	н	
tert-Butyl alcohol	2000	200	H	И	Ħ	н	И	и	
Di-isopropyl ether	ND	5.0	)f	н	Ħ	#1	1¢	н	
Ethyl tert-butyl ether	ND	5.0	н	11	ti .	11	И	н	
Ethylbenzene	7.7	5.0	**	*1	U	**	И	И	
Methyl tert-butyl ether	2000	5.0	**	*1	"	Ħ	Ц	И	
Toluene	ND	5.0	ł	Ħ	ti ti	Ħ	II	И	
Xylenes (total)	11	5.0	ri .	п	"	H	II	R	
Surrogate: Dibromofluoromethane		92 %	75-	130	n	ır	"	"	
Surrogate: 1,2-Dichloroethane-d4		101 %	60-	145	n		Ħ	'n	
Surrogate: Toluene-d8		86 %	70-	130	n	II.	"	rr r	
Surrogate: 4-Bromofluorobenzene		75 %	60-	120	11	"	"	"	





Project: ARCO #2111, San Leandro, CA

MQC0083 Reported: 03/19/07 13:26

Project Number: G0C28-0023 Project Manager: Jay Johnson

### 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 7C05005 - EPA 5030B P/T	LUFT GCMS					<del> </del>				***************************************
Blank (7C05005-BLK1)				Prepared	& Analyz	ed: 03/05/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.65		11	2.50		106	60-145			
Laboratory Control Sample (7C05005	i-BS2)			Prepared	& Analyz	ed: 03/05/	07			
Gasoline Range Organics (C4-C12)	434	50	nā\J	500		87	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.73		11	2.50		109	60-145			
Laboratory Control Sample Dup (7C)	(5005-BSD2)			Prepared	& Analyz	ed: 03/05/	07			
Gasoline Range Organics (C4-C12)	424	50	ug/l	500		85	75-140	2	20	
Surrogate: 1,2-Dichloroethane-d4	2.65		"	2.50		106	60-145	***************************************		





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

Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

MQC0083

Project Number: G0C28-0023 Project Manager: Jay Johnson Reported: 03/19/07 13:26

RPD

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

Reporting

Analyte		reporting		apike						
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7C05005 - EPA 5030B P/T / I	EPA 8260B									
Blank (7C05005-BLK1)				Prepared	& Analyze	ed: 03/05/0	07			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	ti							
tert-Butyl alcohol	ND	20	n							
Di-isopropyl ether	ND	0.50	u							
Ethyl tert-butyl ether	ND	0.50	U							
Ethylbenzene	ND	0.50	tt							
Methyl tert-butyl ether	ND	0.50	H							
Toluene	ND	0.50	H							
Xylenes (total)	ND	0.50	14							
Surrogate: Dibromofluoromethane	2.47		"	2,50		99	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.65		"	2.50		106	60-145			
Surrogate: Toluene-d8	2.27		"	2.50		91	70-130			
Surrogate: 4-Bromofluorobenzene	2.10		n	2.50		84	60-120			
Laboratory Control Sample (7C05005-I	BS1)			Prepared a	& Analyze	ed: 03/05/0	07			
tert-Amyl methyl ether	10.9	0.50	ug/l	10,0	***************************************	109	65-135			
Benzene	10.2	0.50	R	0.01		102	70-125			
tert-Butyl alcohol	203	20	R	200		102	60-135			
Di-isopropyl ether	10.6	0.50	H	0.01		106	70-130			
Ethyl tert-butyl ether	10,8	0.50	If	0.01		108	65-130			
Ethylbenzene	11.5	0.50	н	10,0		115	70-130			
Methyl tert-butyl ether	11.0	0.50	11	0.01		110	50-140			
Toluene	10.5	0.50		10.0		105	70-120			
Xylenes (total)	34.7	0.50	п	30.0		116	80-125			
Surrogate: Dibromofluoromethane	2.56	***************************************	11	2.50		102	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.63		r r	2.50		105	60-145			
Surrogate: Toluene-d8	2.50		"	2.50		100	70-130			
Surrogate: 4-Bromofluorobenzene	2.55		"	2.50		102	60-120			





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

Analyte

Project: ARCO #2111, San Leandro, CA

Spike

Level

Source

Result

%REC

%REC

Limits

RPD

MQC0083 Reported: 03/19/07 13:26

Notes

RPD

Limit

Project Number: G0C28-0023 Project Manager: Jay Johnson

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

Units

Reporting

Limit

Result

Matrix Spike (7C05005-MS1)	Source: MQ	C0065-01		Prepared a	& Analyze	d: 03/05	07
ert-Amyl methyl ether	9.67	0,50	ug/l	10.0	ND	97	65-135
Benzene	9.16	0.50	n	10.0	ND	92	70-125
tert-Butyl alcohol	197	20	n	200	ND	98	60-135
Di-isopropyl ether	9.66	0.50	I <del>)</del>	10.0	ND	97	70-130
Ethyl tert-butyl ether	9.79	0.50	t?	10.0	ND	98	65-130
Ethylbenzene	10.7	0.50	17	10.0	ND	107	70-130
Methyl tert-butyl ether	10,1	0.50	n	10.0	ND	101	50-140
Toluene	9.53	0.50	D.	10.0	ND	95	70-120
Xylenes (total)	37 R	0.50	t)	30.0	ND	109	80-125

Ayienes (total)	32.8	0.50		30.0	ND	109	8U-123
Surrogate: Dibromofluoromethane	2.56		11	2.50	***************************************	102	75-130
Surrogate: 1,2-Dichloroethane-d4	2.54		н	2.50		102	60-145
Surrogate: Toluene-d8	2.46		"	2.50		98	70-130
Surrogate: 4-Bromofluorobenzene	2.63		n	2.50		105	60-120
Matrix Spike Dup (7C05005-MSD1)	Source: MQC0065-01			Prepared & Analyzed: 03/05/07			
tert-Amyl methyl ether	10.4	0.50	ug/l	10.0	ND	104	65-135

Matrix Spike Dup (7C05005-MSD1)	Source: MQ	C0065-01		Prepared a	& Analyze	ed: 03/05/	07			
tert-Amyl methyl ether	10.4	0.50	ug/l	10.0	ND	104	65-135	7	25	
Benzene	9.64	0.50	U	10.0	ND	96	70-125	5	15	
tert-Butyl alcohol	203	20	**	200	ND	102	60-135	3	35	
Di-isopropyl ether	10.2	0.50	19	10.0	ND	102	70-130	5	35	
Ethyl tert-butyl ether	10.4	0.50	19	10.0	ND	104	65-130	6	35	
Ethylbenzene	0.11	0.50	14	10.0	ND	110	70-130	3	15	
Methyl tert-butyl ether	10.6	0.50	It	10.0	ND	106	50-140	5	25	
Toluene	9.97	0.50	И	10.0	ND	100	70-120	5	15	
Xylenes (total)	33.7	0.50	h	30.0	ND	112	80-125	3	15	
Surrogate: Dibromofluoromethane	2,50		tr	2,50		100	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.53		n	2.50		101	60-145			

 Surrogate: 1,2-Dichloroethane-d4
 2,53
 " 2,50
 101
 60-143

 Surrogate: Toluene-d8
 2,46
 " 2,50
 98
 70-130

 Surrogate: 4-Bromofluorobenzene
 2,64
 " 2,50
 106
 60-120





Stratus Environmental Inc. [Arco]
Project: ARCO #2111, San Leandro, CA
MQC0083
3330 Cameron Park Dr., Suite 550
Project Number: G0C28-0023
Cameron Park CA, 95682
Project Manager: Jay Johnson
03/19/07 13:26

#### Notes and Definitions

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

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

# Atlantic Richfield Company

A BP affiliated company

### **Chain of Custody Record**

Project Name: ARCO Facility No. 2111

achity No. 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda

California Regional Water Quality Control Board

RUSH

State or Lead Regulatory Agency: California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Water California Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regional Regiona

24 hours for Effluent

On-site Time: 0500 Temp: 46
Off-site Time: 0730 Temp: 50
Sky Conditions: Class
Meteorological Events:
Wind Speed: Direction:

& STD for others E+ K). Lab Name: TestAmerica BP/AR Facility No.: 2111 Consultant/Contractor: Stratus Environmental, Inc. Address: 885 Jarvis Drive BP/AR Facility Address: 1156 Davis St., San Leandro Address: 3330 Cameron Park Drive, Suite 550 Morgan Hill, CA 95937 Site Lat/Long: Cameron Park, CA 95682 Lab PM: Lisa Race California Global ID No.: T0600101764 Consultant/Contractor Project No.: E2111-03 Tele/Fax: 408-782-8156/ 408-782-6308 Enfos Project No.: G0C28-0023 Consultant/Contractor PM: Jay Johnson BP/AR PM Contact: Paul Supple Provision or OOC (circle one) Provision (530) 676-6000 / (530) 676-6005 Tele/Fax: Address: 2010 Crow Canyon Place, Suite 150 Phase/WBS: 03-O&M Report Type & QC Level: Level I with EDF E-mail EDD To: shaves@stratusinc.net San Ramon, CA Sub Phase/Task: 03-Analytical Tele/Fax: 925-275-3506/925-275-3815 Cost Element: Subcontractor Cost Invoice to: Atlantic Richfield Co. Lab Bottle Order No: Matrix Preservative **Turnaround Time** Requested Analysis 8260 1440083 Sample Point Lat/Long and -oxygenates.by Water/Liquid Air Time Comments GRO by 8015 Item Sample Description Laboratory No. No. Soil/Solid Methanol 4-hours Standard H₂SO₄ ő NH NH HCI 麥 5-oxygenates requested are Ą. A, 15 9211 LDPWARE LOOM MTBE, DIPE, ETBE, TAME, and x U 1019 x x х х 02111ASWINF 41 TBA. х 4 02111ASWEFF х X х х ו (מבאח 60 ŀ х בטשט x х х x 02111WGAC1 63 7557 x 04 x х х х 02111WEFF 0413 ሂ x 6(  $x \mid x$ х х 02111MW2WINF DZUL DPE WTWF 77552 X 04 8 10 TB211 3507 火 191120 47 HIU Sampler's Name: Churs Relinquished By Affiliation Accepted By / Affiliation Date Time Date Time 3507 1095 Sampler's Company: Stratus Environmental, Inc. 3/5/67 1100 a mornino 3507 Shipment Date: Shipment Method: Stuntus Shipment Tracking No: ial Instructions: Please cc results to bpedf@broadbentinc.Com Trip Blank, Yes / No ustody Seals In Place: Yes /バック Cooler Temp on Receipt: 6 MS/MSD Sample Submitted: Yes LND Temp Blank/Yey/No

# TEST AMERICA SAMPLE RECEIPT LOG

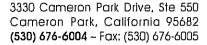
CLIENT NAME:	Athatus.	<u> </u>	DATE REC'D AT LAB:	3.5-07			•		tory Purposes?
REC. BY (PRINT)	l eB	· —	TIME REC'D AT LAB:	100				DRINKING	WATER YES NO
WORKORDER:	M400083		DATE LOGGED IN:	3-5-25	チ			WASTE WA	ATER YES NOW
	·				٠				•
CIRCLE THE APPRO	PRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent								
•	Inlact /- Broken*								
2. Chain-of-Custody	Presept / Absent*				]				
<ol><li>Treffic Reports or</li></ol>				·					
Packing Ust:	Present (Absent)								
4. Airbill:	Airbill / Sticker				[				
	Present / Absent		1. 1,	<u> </u>	- :				
5. Airbill #:			·	~:	<b> </b>				
6. Sample Labels:	Present / Absent								
7. Sample IDs:	Listed / Not Listed					hv.			
	on Chain-of-Cuslody			ļ		<u>'</u> _			
8. Sample Condition:	intact/ Broken*/				10		* * * * * * * * * * * * * * * * * * * *		
	Leaking*			· - 9.1	9/		· · · ·		
9. Does information or	, -		, , , , , , , , , , , , , , , , , , ,	CUI					
traffic reports and a	- 1	,		00'			<del></del>		
agree7	Yes/ No*			· /	-				
10. Sample received with			l	<i>/</i> ·					
hold time?	¥98)No*				<b></b>				
<ol> <li>Adequate sample voluments</li> <li>received?</li> </ol>	JITTE VO*		" 1 .						•
received?  12. Proper-preservatives			/						
13. Trip Blank / Temp Bla					<u> </u>	- <del>-</del>			
(circle which, if yes)	Aee No.								
14. Read Temp:	65,140		<del>/</del>						
Corrected Temp:	40				<del></del>				
Is corrected temp 4 4		/							
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**Exception (if any): ME									
or Problem COC	THE PER PER PER PER PER PER PER PER PER PE			-					
UI FIUUIRIII COO						أحساح			

SRL Revision 8 'Yenlenes Rev 7 (07/10/05) "IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Paga _ / _ of _ /

### APPENDIX D

STRATUS REMEDIATION SYSTEM MONTHLY DISCHARGE REPORTS (INCLUDES BRIEF STATEMENTS SUMMARIZING OPERATIONS AND SEWER DISCHARGE SUMMARY TABLES)





RECEIVED
FEB 0 9 2007
BY:10

### TRANSMITTAL

Date February 2, 2007
Project E2111-03

To:

Ms. Tiffany Treece

City of San Leandro

Civic Center, 835 E. 14th Street

San Leandro, CA 94577

Re: Permit # SD-036, ARCO Service Station No. 2111, 1156 Davis Street, San Leandro

<u>Item</u>	<u>Description</u>
1	Monthly Discharge Report for January 2007
2	Table 1– Sewer Discharge Summary Report

#### Comments:

Dear Ms. Treece:

Please find attached for your review the *Monthly Discharge Report* for January 2007, for the remediation system at ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California. The operation of the dual phase extraction (DPE) system, air stripper (AS) and the groundwater extraction and treatment (GETS) was initiated on January 29, 2007. A total of approximately 5,560 gallons of treated groundwater was discharged to the sanitary sewer between January 29 and 31, 2007.

If you have any questions or need any additional information, please call me at (530) 676-6000.

Sincerely,

Jay R. Johnson, P.G. Project Manager

cc: Mr. Rob Miller, Broadbent & Associates, Inc.

# MONTHLY DISCHARGE REPORT ARCO SERVICE STATION #2111, 1156 DAVIS STREET

This form and enclosed documents serve as the remediation activities monthly discharge report to the City of San Leandro for the reporting period of: <u>January 29, 2007</u> to <u>January 31, 2007</u>. This report is submitted in compliance with 40 CFR 403.12 and Part III (A) of Special Discharge Permit **SD-036**. The information contained in this report is accurate and complete. For any questions or comments regarding this report, contact <u>Kiran Nagaraju</u> at (530) 676 6007.

Number of days discharged: 3

Total monthly discharge: 5,560

.560 _ XJ. \$. Gallons

Signature of Certifying Official:

Printed Name of Official: Jay R. Johnson, P.G.

Title: Project Manager

Date: February 2, 2007

### <u>Include a brief statement summarizing the month's operations:</u>

The operation of the dual phase extraction (DPE) system, air stripper (AS) and the groundwater extraction and treatment system (GETS) was initiated on January 29, 2007. Soil vapors and groundwater were concurrently extracted from wells V-1, V-2, V-3, MW-1, MW-3, MW-7, and MW-8 using the liquid ring pump of the DPE system. In addition, groundwater was also extracted from well MW-2 using the electrical submersible pump. The level floats/controller of the submersible pump malfunctioned on January 29, 2007, and the pump shutdown. The submersible pump will be re-started during February 2007 after troubleshooting the level floats/controller. The groundwater extracted by both the DPE and the submersible pump is treated using the air stripper and two 2,000-pound carbon vessels in series prior to the discharge to the sewer.

### TABLE 1 SEWER DISCHARGE SUMMARY REPORT

ARCO Facility No. 2111 1156 Davis Street San Leandro, California

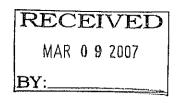
Report Month	Date	Totalizer	Monthy Discharge
(month/year)		Reading (gallons)	(gallons)
January-07	1/29/07 8:00 1/29/07 8:00 1/29/07 ¹ 12:00 PM 01/30/07 01/31/07	System Start-up 3,000 5,000 6,200 8,560	5,560

#### Notes:

NM = Not measured

Submersible pump at well MW-2 was shutdown. This pump will be re-started after troubleshooting the floats malfunction.





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

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BY:	and the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of t

### TRANSMITTAL

MAR 1 2 2007	Date	March 2, 2007
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To:		
Ms. Tiffany Treece	<del></del>	
City of San Leandro		
Civic Center, 835 E. 14 th Street	_	
San Leandro, CA 94577		

Re: Permit # SD-036, ARCO Service Station No. 2111, 1156 Davis Street, San Leandro

<u>Item</u>	<u>Description</u>	
1	Monthly Discharge Report for February 2007	
2	Table 1- Sewer Discharge Summary Report	

#### Comments:

Dear Ms. Treece:

Please find attached for your review the *Monthly Discharge Report* for February 2007, for the remediation system at ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California. A total of approximately 114,230 gallons of treated groundwater was discharged to the sanitary sewer between February 1 and 20, 2007.

If you have any questions or need any additional information, please call either Kiran Nagaraju at (530) 676 6007 or myself at (530) 676-6000.

Sincerely,
Jay R. Johnson, P.G.
Project Manager

cc: Mr. Rob Miller, Broadbent & Associates, Inc.

# MONTHLY DISCHARGE REPORT ARCO SERVICE STATION #2111, 1156 DAVIS STREET

This form and enclosed documents serve as the remediation activities monthly discharge report to the City of San Leandro for the reporting period of: <u>February 1, 2007</u> to <u>February 20, 2007</u>. This report is submitted in compliance with 40 CFR 403.12 and Part III (A) of Special Discharge Permit **SD-036**. The information contained in this report is accurate and complete. For any questions or comments regarding this report, contact <u>Kiran Nagaraju</u> at (530) 676 6007.

Number of days discharged: 20

Total monthly discharge: 114.230 U.S. Gallons

Signature of Certifying Official:

Printed Name of Official: Jay R. Johnson, P.G.

Title: Project Manager

Date: March 2, 2007

# Include a brief statement summarizing the month's operations:

The operation of the dual phase extraction (DPE) system, air stripper (AS) and the groundwater extraction and treatment system (GETS) was initiated on January 29, 2007. Soil vapors and groundwater were concurrently extracted from wells V-1, V-2, V-3, MW-1, MW-3, MW-7, and MW-8 using the liquid ring pump of the DPE system. The groundwater extracted by both the DPE and the submersible pump is treated using the air stripper and two 2,000-pound carbon vessels in series prior to the discharge to the sewer. A total of approximately 114,230 gallons of groundwater was extracted, treated, and discharged to the sanitary sewer between February 1 and 20, 2007.

Submit reports to:

City of San Leandro - Environmental Services Division

835 East 14th Street, San Leandro CA 94577

### TABLE 1 SEWER DISCHARGE SUMMARY REPORT

ARCO Service Station No. 2111 1156 Davis Street San Leandro, California

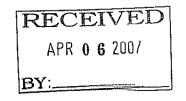
Report Month (month/year)	Date	Effluent Totalizer Reading (gallons)	Monthy Discharge (gallons)
January-07	1/29/07 8:00 1/29/07 8:00 1/29/07 ¹ 12:00 01/30/07 01/31/07	System Start-up 3,000 5,000 6,200 8,560	5,560
21/1/2007	2/1/07 5:15 2/2/07 5:00 2/5/07 5:00 2/20/07 6:30	16,860 25,480 33,400 122,790	114,230

## Notes:

NM = Not measured

Submersible pump at well MW-2 was shutdown. This pump will be re-started after troubleshooting the level floats/controller malfunction.







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

RECEIVED						
APR	O	ÿ	2007			
BY:						

# TRANSMITTAL

APR V 9 2007			
~~	Date	April 2, 2007	
Y:	Project	E2111-03	
То:			
Ms. Tiffany Treece			
City of San Leandro			
Civic Center, 835 E. 14 th Street			
San Leandro, CA 94577			

Re: Permit # SD-036, ARCO Service Station No. 2111, 1156 Davis Street, San Leandro

<u>Item</u>	<u>Description</u>	
1	Monthly Discharge Report for March 2007	
2	Table 1- Sewer Discharge Summary Report	

#### Comments:

Dear Ms. Treece:

Please find attached for your review the *Monthly Discharge Report* for March 2007, for the remediation system at ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California. A total of approximately 10,472 gallons of treated groundwater were discharged to the sanitary sewer between February 20, 2007 and March 29, 2007.

If you have any questions or need any additional information, please call either Kiran Nagaraju at (530) 676 6007 or myself at (530) 676-6000.

Sincerely,

Jay R. Johnson, P.G. Project Manager

cc: Mr. Rob Miller, Broadbent & Associates, Inc.

# MONTHLY DISCHARGE REPORT ARCO SERVICE STATION #2111, 1156 DAVIS STREET

This form and enclosed documents serve as the remediation activities monthly discharge report to the City of San Leandro for the reporting period of: <u>February 20, 2007</u> to <u>March 29, 2007</u>. This report is submitted in compliance with 40 CFR 403.12 and Part III (A) of Special Discharge Permit **SD-036**. The information contained in this report is accurate and complete. For any questions or comments regarding this report, contact <u>Kiran Nagaraju</u> at (530) 676 6007.

Number of days discharged: 37

Total monthly discharge: 114,230 U. S. Gallons

Signature of Certifying Official: PG

Printed Name of Official: Jay R. Johnson, P.G.

Title: Project Manager

Date: April 2, 2007

### <u>Include a brief statement summarizing the month's operations:</u>

The operation of the dual phase extraction (DPE) system, air stripper (AS) and the groundwater extraction and treatment system (GETS) was initiated on January 29, 2007. Soil vapors and groundwater were concurrently extracted from wells V-1, V-2, V-3, MW-1, MW-3, MW-7, and MW-8 using the liquid ring pump of the DPE system. The groundwater extracted by both the DPE and the submersible pump is treated using the air stripper and two 2,000-pound carbon vessels in series prior to the discharge to the sewer. A total of approximately 10,472 gallons of groundwater was extracted, treated, and discharged to the sanitary sewer between February 20, 2007 and March 29, 2007.

Submit reports to:

City of San Leandro – Environmental Services Division

835 East 14th Street, San Leandro CA 94577

### TABLE 1 SEWER DISCHARGE SUMMARY REPORT

ARCO Service Station No. 2111 1156 Davis Street San Leandro, California

Report Month (month/year)	Date	Effluent Totalizer Reading (gallons)	Monthy Discharge (gallons)
January-07	1/29/07 8:00 1/29/07 8:00 1/29/07 ¹ 12:00 01/30/07 01/31/07	System Start-up 3,000 5,000 6,200 8,560	5,560
February-07	2/1/07 5:15 2/2/07 5:00 2/5/07 5:00 2/20/07 6:30	16,860 25,480 33,400 122,790	114,230
March-07  March-07  3/5/07 ² 5:00  3/8/07 ³ 4:50  3/14/07 ⁴ 7:00  3/29/07 ⁵ 10:00		130,565 132,951 NM 133,262	10,472

#### Notes:

#### NM = Not measured

¹ Submersible pump at well MW-2 was shutdown. This pump will be re-started after troubleshooting the level floats/controller malfunction.

System observed non-functioning upon arrival. Re-started by re-setting power supply.

System shutdown to verify effluent air results.

⁴ System shutdown due to float malfunction.

System re-started after replacing the floats.