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By dehloptoxic at 9:06 am, Jan 31, 2007





Atlantic Richfield Company (a BP affiliated company)

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

January 30, 2007

Re: Fourth Quarter, 2006 Semi-Annual Groundwater Monitoring Report Atlantic Richfield Company Station #6113 785 East Stanley Boulevard Livermore, CA ACEH Case ID # 3883

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

Submitted by:

Paul Supple

Environmental Business Manger

## Fourth Quarter, 2006 Semi-Annual Ground-Water Monitoring Report

Atlantic Richfield Company Station #6113
785 East Stanley Boulevard
Livermore, California

## Prepared for

Mr. Paul Supple Environmental Business Manager Atlantic Richfield Company P.O. Box 1257 San Ramon, California 94583

## Prepared by



1324 Mangrove Avenue, Suite 212 Chico, California 95926 (530) 566-1400 www.broadbentinc.com

January 2007

Project No. 06-02-637

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



January 30, 2007

Project No. 06-02-637

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

Attn.: Mr. Paul Supple

Re: Fourth Quarter, 2006 Semi-Annual Ground-Water Monitoring Report, Atlantic Richfield

Company (a BP affiliated company) Station #6113, 785 East Stanley Boulevard,

Livermore, CA. ACEH Case No. RO0000393.

Dear Mr. Supple:

Attached is the Fourth Quarter, 2006 Semi-Annual Ground-Water Monitoring Report for Atlantic Richfield Company Station #6113 (herein referred to as Station #6113) located at 785 East Stanley Boulevard, Livermore, CA (Property). This report presents a summary of Fourth Quarter, 2006 ground-water monitoring results.

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

Sincerely,

BROADBENT & ASSOCIATES, INC.

Matthew G. Herrick, P.G.

Project Hydrogeologist

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

Subut H. Mill

Principal Hydrogeologist

**Enclosures** 

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

ROBERT H.

MILLER

No. 4893

site)

Mr. Paul M. Smith/Ms. Danielle Stefani, Livermore-Pleasanton Fire Department

(submitted via GeoTracker)

ARIZONA CALIFORNIA NEVADA TEXAS

## STATION # 6113 SEMI-ANNUAL GROUND-WATER MONITORING REPORT

Facility: 6113 Address: 785 East Stanley Boulevard, Livermore, CA Station 6113 Environmental Business Manager: Mr. Paul Supple Consulting Co./Contact Persons: Broadbent & Associates, Inc.(BAI)/Rob Miller & Matt Herrick Primary Agency/Regulatory ID No.: Alameda County Environmental Health (ACEH) / ACEH Case No. RO0000393 Consultant Project No.: 06-02-637 Facility Permits/Permitting Agency.: NA

## WORK PERFORMED THIS QUARTER (Fourth Quarter, 2006):

1. Conducted ground-water monitoring/sampling for Fourth Quarter, 2006. Work performed by Stratus Environmental, Inc.

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

- 1. Submit First Quarter, 2007 Report (contained herein).
- 2. No ground-water monitoring/sampling activities are scheduled to be completed on the Property during the First Quarter, 2007.

## **QUARTERLY RESULTS SUMMARY:**

Groundwater monitoring/sampling
Wells MW-4, MW-6, MW-7, MW-11 through MW-13,
VW-1: Semi Annually (2Q and 4Q)
Wells MW-3, MW-9, and MW-10: Annually (4Q)
Semi-Annually (2Q and 4Q)
No
NA
288 cubic yards TPH impacted soil
Air Diffusion
17.87 (VW-1) to 20.20 (MW-10)
Northeast
0.014 feet per foot

## **DISCUSSION:**

Gasoline range organics were detected at or above the laboratory reporting limit in four of the eight wells sampled during Fourth Quarter, 2006 at concentrations ranging from 80 micrograms per liter ( $\mu$ g/L) in well VW-1 to 15,000  $\mu$ g/L in well MW-13. Benzene was detected above the laboratory reporting limit in two wells at 5.5  $\mu$ g/L (MW-3) and 150  $\mu$ g/L (MW-13). Toluene was not detected above the laboratory reporting limit in any of the wells sampled. Ethylbenzene was detected above the laboratory reporting limit in three wells at concentrations ranging from 2.3  $\mu$ g/L in VW-1 to 1,700  $\mu$ g/L in MW-13. Xylenes were detected above the laboratory reporting limit in three wells at concentrations ranging from 0.82  $\mu$ g/L in VW-1 to 400  $\mu$ g/L in MW-13. Methyl tert-butyl ether was detected above the laboratory reporting limit in three wells at concentrations ranging from 22  $\mu$ g/L in well MW-3 to 3,400  $\mu$ g/L (MW-6). No other fuel additives were detected above their respective laboratory reporting limits.

January 11, 2007 Page 2

Wells MW-11 and MW-12 were not sampled during Fourth Quarter, 2006. A review of Table 1 indicates that there has been problems in the past locating these wells. Every effort will be made during the next monitoring/sampling event (Second Quarter, 2007) to locate and sample these two wells.

## **CLOSURE:**

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

## **ATTACHMENTS:**

Drawing 1.	Ground-Water	Elevation	Contour	and	Analytical	Summary	Map,	Station	#6113,
	Livermore, CA								

- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #6113, Livermore CA
- Table 2. Summary of Fuel Additives Analytical Data, Station #6113, Livermore, CA
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #6113, Livermore, CA
- Appendix A. Stratus Environmental, Inc. Groundwater Sampling Data Package (Includes Laboratory Report and Chain of Custody Documentation and Field Data Sheets).
- Appendix B. Geotracker Upload Confirmation.

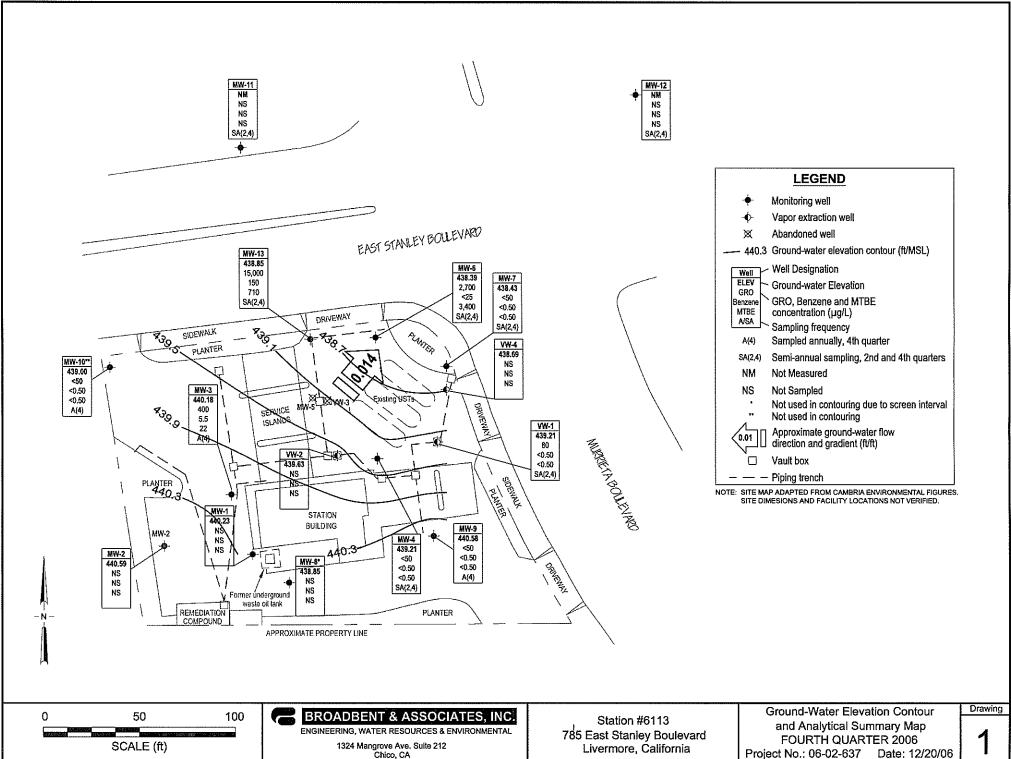


Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

				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-1												-			
3/23/1995		e o le la	457.04	29.0	44.0	14.12	442.92				-				-
5/31/1995		e	457.04	29.0	44.0	14.45	442,59					***			
8/31/1995		е	457.04	29.0	44.0	17.12	439.92	-	-	-				-	
11/28/1995			457.04	29.0	44.0	16.34	440.70	<50	<0.5	<0.5	<0.5	<0.5	<3		
2/22/1996		e	457.04	29.0	44.0	13.23	443.81			-		-			
5/23/1996		е	457.04	29.0	44.0	14.02	443.02								
8/8/1996	-	е	457.04	29.0	44.0	16.13	440.91				-	-		<u> </u>	
11/7/1996		menter i vicinita e e a dia dia del filo menter a unitati de fat dia cita de al materia di unitativa	457.04	29.0	44.0	17.28	439.76	<50	<0.5	<0.5	<0.5	<0.5	<3		***
3/27/1997	-	e	457.04	29.0	44.0	14.91	442.13		200	-	-		-	-	
5/19/1997		e	457.04	29.0	44.0	16.47	440.57								
5/18/1998	000 <del>-</del> 000	<u>e</u> (40 (40 (40 (40 (40 (40 (40 (40 (40 (40	457.04	29.0	44.0	14.69	442.35	-	-	-	-				
11/2/1998			457.04	29.0	44.0	25.94	431.10	<50	<0.5	<0.5	<0.5	<0.5	<3		
6/4/1999		<b>e</b> 👼	457.04	29.0	44.0	17.38	439.66	-	-			-	5 (5 <del>77</del> (5 )		
11/11/1999	P		457.04	29.0	44.0	18.63	438.41	<50	<0.5	<0.5	<0.5	<l< td=""><td>&lt;3</td><td>1.03</td><td></td></l<>	<3	1.03	
6/20/2000		e	457.04	29.0	44.0	17.09	439.95	-	_	-				3.1	
8/29/2000		e	457.04	29.0	44.0	18.20	438.84						***	2.66	
11/29/2000	P		457.04	29.0	44.0	20.30	436.74	<50.0	<0.500	<0.500	<0.500	1.36	<2.50	0.71	
5/2/2001		e	457.04	29.0	44.0	22.39	434.65								
8/15/2001		е	457.04	29.0	44.0	24.97	432.07	-		-		_			<u></u>
10/5/2001	P	(N) 57 (N)	457.04	29.0	44.0	25.09	431.95	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.78	
1/21/2002		e	457.04	29.0	44.0	24.58	432.46	<u> 15.</u>	-	100 <u>110</u> 100		_			
4/26/2002		e	457.04	29.0	44.0	24.19	432.85					**			
10/7/2002	-		457.04	29.0	44.0	20.13	436.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	
05/01/2003		r	457.04	29.0	44.0	17.98	439.06								
10/27/2005	-		459,41	29.0	44,0	18.45	440.96								(i)
04/12/2006			459.41	29.0	44.0	15.18	444.23								
10/31/2006			459.41	29.0	44.0	19.18	440.23				-				
MW-2		20 A STATE OF STATE O		, many from annua political.	and the second s		47.5 (344.5)(1985)			The second secon					1210010000
3/23/1995			457.74	28.0	38.0	14.15	443.59		**						
5/31/1995		e	457.74	28.0	38.0	14.67	443.07		-	-	-	-	- a al	-	-

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

				Top of	Bottom of		Water Level			Concentra	tions in (u	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-2 Cont.															
8/31/1995	-	e	457.74	28.0	38.0	17.24	440.50	-					_		
11/28/1995			457.74	28.0	38.0	16.40	441.34	<50	<0.5	<0.5	<0.5	<0.5	<3		
2/22/1996		e	457.74	28.0	38.0	13.55	444.19		-			-	_	-	
5/23/1996		e	457.74	28.0	38.0	14.29	443.45								
8/8/1996		е	457.74	28.0	38.0	16.19	441.55								
11/7/1996			457.74	28.0	38.0	17.50	440.24	65	0.6	7.4	2.1	12	5		~-
3/27/1997		е	457.74	28.0	38.0	15.32	442.42			-	-		0 (0) <u></u> (0) (0)		(i) <u></u> 2
5/19/1997		e	457.74	28.0	38.0	16.62	441,12							**	
5/18/1998	au	e	457:74	28.0	38.0	15.12	442.62	-		-	-		-		
11/2/1998		200 V 200 V 400 CO	457.74	28.0	38.0	26.66	431.08	<50	<0.5	<0.5	<0.5	<0.5	<3		
6/4/1999	-	e e	457.74	28.0	38.0	17.74	440.00	-	-	-					
11/11/1999	P		457.74	28.0	38.0	18.75	438.99	<50	<0.5	<0.5	<0.5	<1	ব	0.82	
6/20/2000		е	457.74	28.0	38.0	17.21	440.53		-	-				2.6	
8/29/2000		е	457.74	28.0	38.0	18.25	439.49							2.65	
11/29/2000	P		457.74	28.0	38.0	20.69	437.05	<50.0	<0.500	0.581	0.827	4.38	<2.50	0.88	<u>-</u>
5/2/2001		c	457.74	28.0	38.0	22.69	435.05	***				***			****
8/15/2001		e	457.74	28.0	38.0	25.15	432.59		<u> </u>					_	157 <u>177</u>
10/5/2001	P		457.74	28.0	38.0	25.22	432.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.8	
1/21/2002	_	е	457.74	28.0	38.0	24.70	433.04	22	9 = 0	_	·	12	<u></u>		-
4/26/2002	P=	e	457.74	28.0	38.0	24.53	433.21				**************************************				
10/7/2002	-		457.74	28.0	38.0	19.45	438.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	
05/01/2003		r	457.74	28.0	38.0	18.18	439.56								
10/27/2005		t	460.07	28.0	38.0	-	and the state of t		-	-		_		-	d()
04/12/2006			460.07	28.0	38.0	15.30	444.77								
10/31/2006			460.07	28.0	38.0	38.62	421.45		-	-	-			-	
MW-3		, , , , , , , , , , , , , , , , , , , ,		//											
3/23/1995		e	456.97	28.5	38.5	14.13	442.84								
5/31/1995	_	e	456.97	28.5	38.5	14.46	442.51					-			3 <del></del>
8/31/1995		e	456.97	28.5	38.5	17.06	439.91	**							
11/28/1995			456.97	28.5	38.5	16.27	440.70	<50	<0.5	<0.5	<0.5	<0.5	্র		

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

				Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			TOC	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		ро	
Sample Date	P/NP	Comments	(feet msi)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-3 Cont.							.,,								
2/22/1996		e e	456.97	28.5	38.5	13.14	443.83	-		-			77		-
5/23/1996		е	456.97	28.5	38.5	13.95	443.02					***			
8/8/1996		е	456.97	28.5	38.5	16.03	440.94				-			-	
11/7/1996			456.97	28.5	38.5	17.26	439.71	<50	<0.5	0.9	<0.5	1.5	<3		
3/27/1997		e	456,97	28.5	38.5	14.85	442.12			-			-		
5/19/1997		e	456.97	28.5	38.5	16.40	440.57								
5/18/1998		e	456.97	28.5	38.5	14.66	442.31			-			- 3		
11/2/1998			456.97	28.5	38.5	25.85	431.12	<1,000	<10	<10	<10	<10	1,700		
6/4/1999	-	Magnetic e de la mi	456.97	28.5	38.5	17.35	439.62	-	-	60 <b>=</b> 000		-			00
11/11/1999	P		456.97	28.5	38.5	18.58	438.39	<50	<0.5	<0.5	<0.5	<1	-3	0.79	**
6/20/2000	-	e .	456.97	28,5	38.5	17.03	439.94				-	( ii) ( ii)		2.8	
8/29/2000		e	456.97	28.5	38.5	18.25	438.72							3.39	
11/29/2000			456.97	28.5	38.5	20.27	436.70	<50.0	<0.500	<0.500	1.08	3.34	<2.50	0.67	
5/2/2001		е	456.97	28.5	38.5	22.33	434.64								
8/15/2001	-	e	456.97	28.5	38.5	25.03	431.94	-	-			-			
10/5/2001	P		456.97	28.5	38.5	25.17	431.80	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.79	
1/21/2002	-	e	456.97	28.5	38.5	24.79	432.18		-			-		-	
4/26/2002		e	456.97	28.5	38.5	24.27	432.70								**
10/7/2002			456.97	28.5	38.5	20.20	436.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	
05/01/2003		c, e	456.97	28.5	38.5	18.27	438.70								
10/03/2003	P	d	456.97	28.5	38.5	20.07	436.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.2	7.3
04/06/2004		e	459.32	28.5	38.5	17.24	442.08	- AMERIKA (1884)	**						
10/28/2004	P		459.32	28.5	38.5	19.38	439.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	8.1	7.3
04/13/2005			459.32	28.5	38.5	16.02	443.30								
10/27/2005	-	t e	459.32	28.5	38.5	m			-	-		(a. (i) <b></b> (i) (i)	6		-
04/12/2006			459.32	28.5	38.5	15.12	444.20	***							
10/31/2006	P		459.32	28.5	38.5	19.14	440.18	400	5.5	<0.50	5.5	9.6	22	-	7.64
MW-4		300000000000000000000000000000000000000						The second secon					100 mm	19911200001000000	400)1000000
3/23/1995			456.55	21.0	27.0	15.39	441.16	210	2.1	0.6	0.8	2.1			
5/31/1995	-		456.55	21.0	27.0	15.32	441.23	190	1.6	<0.5	0.7	0.9			377

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, 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 msi)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-4 Cont.															
8/31/1995	-		456.55	21.0	27.0	17.86	438.69	160	1.2	0.7	<0.5	<2	3	9019-9039-932-9	enoreseens
11/28/1995	**		456.55	21.0	27.0	17.18	439.37	150	0.7	<0.5	0.7	1.4	<3		**
2/22/1996			456.55	21.0	27.0	14.80	441.75	100	<0.5	<0.5	<0.6	0.8	ব	STATE STATES	22.22.20
5/23/1996			456.55	21.0	27.0	14.43	442.12	86	<0.5	<0.5	<0.5	<0.7	<3		350525500
8/8/1996	0 0 <u>44</u>		456.55	21.0	27.0	16.80	439.75	98	<0.5	<0.5	<0.5	1.3	⊲		160 <u>755</u> 753
11/7/1996			456.55	21.0	27.0	17.90	438.65	140	<0.5	<0.5	<0.9	1.3	<3		
3/27/1997		an energy artification	456.55	21.0	27.0	15.22	441.33	<50	1.1	<0.5	<0.5	1.6	3	-	
5/19/1997			456.55	21.0	27.0	16.98	439.57	62	<0.5	<0.5	<0.5	0.6	<3	552(428) (S5)	
5/18/1998			456.55	21.0	27.0	14.99	441,56	<50	<0.5	<0.5	<0.5	<0.5	64		
11/2/1998			456.55	21.0	27.0	25.29	431.26	74	<0.5	<0.5	<0.5	<0.5	96		
6/4/1999	P		456.55	21.0	27.0	17.95	438.60	100	<0.5	<0.5	<0.5	<0.5	38		
11/11/1999	P		456.55	21.0	27.0	19.25	437.30	88	<0.5	<0.5	<0.5	<1	10	0.77	2200300
6/20/2000		q	456.55	21.0	27.0	-		<50.0	<0.500	<0.500	<0.500	<0.500	62.3		
6/20/2000	P		456.55	21.0	27.0	17.79	438.76	<50.0	<0.500	<0.500	<0.500	<0.500	82.4	1.3	
8/29/2000	P	ALLEGICANICS SCHOOL SECTION OF A STORY	456.55	21.0	27.0	18.90	437.65	56	<0.500	<0.500	<0.500	<0.500	47.9	0.97	understanderen
11/29/2000	P	S	456.55	21.0	27.0	20.50	436.05	<50.0	<0.500	<0.500	<0.500	<0.500	9.88/10.4	0.59	55025555555
<i>5/2/</i> 2001		S	456.55	21.0	27.0	-	<u> </u>	<50.0	<0.500	<0.500	<0.500	<0.500	59.4/68.4	10 <u>21</u> 10	
5/2/2001	P	q, s	456.55	21.0	27.0	22.65	433.90	<50.0	<0.500	<0.500	<0.500	<0.500	61.1/70.9	0.74	
8/15/2001	22	f	456.55	21.0	27.0	-	<u> -</u>						_	3 ( <u>4</u> 3)	153 <u>22</u> 53
10/5/2001		f	456.55	21.0	27.0			**							120012014
1/21/2002		f	456.55	21.0	27.0	_	-		-	-					2.2
4/26/2002	P		456.55	21.0	27.0	20.15	436.40	110	<0.50	<0.50	<0.50	<0.50	150	0.21	1200, 2550,007
10/7/2002	P	a	456.55	21.0	27.0	20,76	435.79	96	<0.50	<0.50	0.54	<0.50	260	1.0	
05/01/2003	P	c	456.55	21.0	27.0	19.67	436.88	120	1.3	<0.50	<0.50	<0.50	86	1.7	
10/03/2003	P	d	456.55	21.0	27.0	20.23	436.32	<50	<0.50	<0.50	<0.50	<0.50	22	13.5	6.8
04/06/2004	P		458.88	21.0	27.0	18.13	440.75	96	<0.50	<0.50	<0.50	<0.50	17	1.6	6.8
10/28/2004	P		458.88	21.0	27.0	20.02	438.86	<50	<0.50	<0.50	<0.50	<0.50	4.5	1.2	6.7
04/13/2005	P		458.88	21.0	27.0	16.68	442.20	<50	<0.50	<0.50	<0.50	<0.50	2.8	0.8	6.7
10/27/2005	P		458.88	21.0	27.0	19.05	439.83	400	14	<0.50	11	1.8	22	1.0	6.9
04/12/2006	P		458.88	21.0	27.0	15.47	443.41	100	<0.50	<0.50	<0.50	<0.50	1.9	1.6	7.2
10/31/2006	P	1000	458.88	21.0	27.0	19.67	439.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50		7.63

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

				Top of	Bottom of		Water Level			Concentra	tions in (µ;	g/L)			
Well and Sample Date	P/NP	Comments	TOC (feet msl)	Screen (ft bgs)	Screen (ft bgs)	DTW (feet bgs)	Elevation (feet msl)	GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	МТВЕ	DO (mg/L)	pН
MW-4															
MW-5							***************************************								
3/23/1995			455.84	43.0	63.0	13.97	441.87	68	4.2	3.4	2.3	12			
5/31/1995	-	g	455.84	43.0	63.0	_	-						<u></u>		<u> </u>
8/31/1995		g	455.84	43.0	63.0		**							**************************************	
11/28/1995	0.00		455.84	43.0	63,0	16.46	439.38	960	41	24	38	210	ర	<u> </u>	-
2/22/1996		f	455.84	43.0	63.0	13.34	442.50				<b>v</b> -				
5/23/1996			455.84	43.0	63.0	14.36	441.48	7,100	440	180	270	1,700	<50		91
8/8/1996		f	455.84	43.0	63.0	16.38	439.46								
11/7/1996	-		455.84	43.0	63.0	17.26	438.58	5,600	230	86	210	1,100	<80		
3/27/1997		f	455.84	43.0	63.0	15.95	439.89								H 16-
5/19/1997	-		455.84	43.0	63.0	16.64	439.20	7,600	480	140	400	1,200	<40	-	
5/18/1998			455.84	43.0	63.0	14.75	441.09	990	46	13	45	180	4		
11/2/1998	-		455.84	43.0	63.0	27,83	428.01	14,000	690	140	550	2,200	100	_	
6/4/1999	P		455.84	43.0	63.0	17.47	438.37	8,300	690	370	90	440	1,400		
11/11/1999	P		455.84	43.0	63.0	18.80	437.04	18,000	900	190	1,100	3,200	72	0.86	-
6/20/2000	P		455.84	43.0	63.0	17.14	438.70	10,200	618	122	832	2,020	<50.0	1.6	
8/29/2000	P		455.84	43.0	63.0	18.60	437.24	12,300	436	166	711	2,120	517	0.79	
11/29/2000	Р	S	455.84	43.0	63.0	20.57	435.27	26,000	491	149	1,090	3,810	671/<20.0	0.51	
5/2/2001	9 (8) 42 (9)	k		-	-			-	-		_		0 (0 <u>0 0</u> 0 0	0.00	31.22
MW-6															
3/23/1995			454.93	48.0	68.0	13.38	441.55	<50	1.5	<0.5	   <0.5	0.9			
5/31/1995			454.93	48.0	68.0	13.96	440.97	<50	<0.5	<0.5	<0.5	<0.5		N 152	101 (178)
8/31/1995			454.93	48.0	68.0	16.71	438.22	150	9	1.8	4	12	<3		\$5. 650 
11/28/1995	-		454.93	48.0	68.0	15.65	439.28	<50	0.6	<0.5	<0.5	0.8	ব		-
2/22/1996			454.93	48.0	68.0	12.53	442.40	<50	1.9	<0.5	0.8	2.1	<3		224///35
5/23/1996			454.93	48.0	68.0	13.24	441.69	<50	<0.5	<0.5	<0.5	<0.5	- 3	-	0
8/8/1996			454.93	48.0	68.0	16.65	438.28	<50	0.5	<0.5	<0.5	0.5	ব		
11/7/1996			454.93	48.0	68,0	16.65	438.28	110	5.3	1.3	3.1	6.6	থ		-
3/27/1997			454.93	48.0	68.0	14.25	440.68	<50	2.3	<0.5	0.9	3.5	4		

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, 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-6 Cont.															
5/19/1997			454.93	48.0	68.0	15.87	439.06	<50	<0.5	<0.5	<0.5	<0.5	<3		
5/18/1998			454.93	48.0	68.0	14.00	440.93	<50	<0.5	<0.5	<0.5	<0.5	ব্য	(A	
11/2/1998			454.93	48.0	68.0	24.95	429.98	<50	1.2	<0.5	<0.5	<0.5	3		
6/4/1999	P		454.93	48,0	68.0	16.68	438.25	310	41	3.8	11	19	33		
11/11/1999	Р		454.93	48.0	68.0	16.12	438.81	<50	0.5	<0.5	<0.5	<1	<3	0.92	
6/20/2000	Р		454.93	48.0	68.0	16.63	438.30	<50.0	<0.500	<0.500	<0.500	<0.500	17.3	1.9	- T
8/29/2000		q	454.93	48.0	68.0			<50.0	<0.500	<0.500	<0.500	<0.500	<2.50		
8/29/2000	P		454.93	48.0	68.0	17.91	437.02	<50.0	<0.500	0.551	<0.500	<0.500	<2.50	1.67	
11/29/2000	P		454.93	48.0	68.0	20.30	434.63	<50.0	<0.500	<0.500	<0.500	1.03	<2.50	0.79	
5/2/2001	P	S	454.93	48.0	68.0	22,20	432.73	3,230	1,300	33.6	89.4	136	1,810/2,310	0.95	-
8/15/2001	P	S	454.93	48.0	68.0	27.95	426.98	<50	<0.50	<0.50	<0.50	<0.50	21/25	0.63	
10/5/2001	P		454.93	48.0	68.0	28.05	426.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.85	<u> 12</u>
1/21/2002	P	AND	454.93	48.0	68.0	26.81	428.12	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.91	
4/26/2002	P		454.93	48.0	68.0	26.27	428.66	<50	<0.50	<0.50	<0.50	<0.50	17	0.75	(0. <u>1.1</u> )
10/7/2002	P	a	454.93	48.0	68.0	20.05	434.88	60	13	1.7	1.7	3.5	8	2.8	
05/01/2003	P	of court city and	454.93	48.0	68.0	17.62	437.31	√50	5.4	<0.50	0.63	1.3	12	1.6	_
10/03/2003	P	d	454.93	48.0	68.0	19.62	435.31	80	2.6	<2.5	<2.5	<2.5	120	5.1	6.9
04/06/2004	P		457.24	48.0	68.0	16.88	440.36	<2,500	<25	<25	<25	<25	1,700	4.1	7.0
10/28/2004	P		457.24	48.0	68.0	19.20	438.04	3,200	<25	<25	<25	<25	3,100	6.8	6.9
04/13/2005	P	and the street area	457.24	48.0	68.0	15.15	442.09	<5,000	<50	<50	<50	<50	3,900	3.9	7.0
10/27/2005	P		457.24	48.0	68.0	18.12	439.12	<5,000	<50	<50	<50	<50	2,900	3.15	7.0
04/12/2006	P		457,24	48,0	68.0	15.32	441.92	<5,000	<50	<50	<50	<50	3,400	4.3	7.6
10/31/2006	P	u, v	457.24	48.0	68.0	18.85	438.39	2,700	<25	<25	<25	<25	3,400		10.36
MW-7															
3/23/1995			454.92	48.0	68.0	13.29	441.63	<50	<0.5	<0.5	<0.5	<0.5		em receives an	-
5/31/1995			454.92	48.0	68.0	13.72	441.20	<50	<0.5	<0.5	<0.5	<0.5			
8/31/1995			454.92	48.0	68.0	16.53	438.39	<50	<0.5	<0.5	<0.5	1.2	Ø	39771331113111	1077
11/28/1995		VANDES (2000) DE DES SERVES (2000) (2000) (2000) (2000) (2000) (2000) (2000) (2000) (2000) (2000) (2000) (2000)	454.92	48.0	68.0	15.50	439,42	<50	<0.5	<0.5	<0.5	<0.5	<3		
2/22/1996			454.92	48.0	68.0	12.30	442.62	<50	<0.5	<0.5	<0.5	<0.5	3	5 (15) (5)	- <u> </u>
5/23/1996			454.92	48.0	68.0	13.02	441.90	<50	<0.5	<0.5	<0.5	<0.5	<3		

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, 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.															
8/8/1996		m	454.92	48.0	68.0								***		
11/7/1996	100 <u>110</u> 0 (100		454.92	48.0	68.0	16.50	438.42	<50	<0.5	<0.5	<0.5	0.8	<3		
3/27/1997			454.92	48.0	68.0	14.22	440.70	<50	<0.5	<0.5	<0.5	<0.5	<3		
5/19/1997	9 (4 <b></b> )	MIN 150 (40 pg 150 00)	454.92	48.0	68.0	15.74	439.18	<50	<0.5	<0.5	<0.5	<0.5	3		
5/18/1998			454.92	48.0	68.0	13.82	441.10	<50	<0.5	<0.5	<0.5	<0.5	<3		***
11/2/1998			454.92	48.0	68.0	24.80	430.12	<50	<0.5	<0.5	<0.5	<0.5	4	i -	-
6/4/1999	P		454.92	48.0	68.0	16.55	438.37	<50	<0.5	<0.5	<0.5	<0.5	<3		**
11/11/1999	P		454.92	48.0	68.0	18.02	436.90	<50	<0.5	<0.5	<0.5	<1	ઢ	1.03	-
6/20/2000	P		454.92	48.0	68.0	16.50	438.42	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.3	
8/29/2000	P		454.92	48.0	68.0	17.80	437.12	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.67	
11/29/2000	P		454.92	48.0	68.0	19.61	435.31	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.51	
<i>5/2/</i> 2001	P	S	454.92	48.0	68.0	22.05	432,87	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50/2.66	0.9	
8/15/2001	P		454.92	48.0	68.0	27.55	427.37	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.84	
10/5/2001	P		454,92	48.0	68.0	27.59	427.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.62	
1/21/2002	P	s	454.92	48.0	68.0	26.50	428.42	<50	<0.50	<0.50	<0.50	<0.50	15/21	0.65	
4/26/2002	P	100000000000000000000000000000000000000	454.92	48.0	68.0	26.22	428.70	<50	<0.50	<0.50	<0.50	<0.50	18	0.61	
10/7/2002		**************************************	454.92	48.0	68.0	20.04	434.88	<50	1.2	<0.50	<0.50	0.77	41	4.8	
05/01/2003	P	Contraction	454.92	48.0	68.0	17.47	437.45	<50	<0.50	<0.50	<0.50	0.5	43	2.7	
10/03/2003	P	d	454.92	48.0	68.0	19.55	435.37	<50	<1.0	<1.0	<1.0	<1.0	49	5.7	7.1
04/06/2004	P		457.17	48.0	68.0	16.60	440.57	<50	<0.50	<0.50	<0.50	0.75	0.76	0.7	7.0
10/28/2004	P	SOM KUNDUN PROGRAM PROGRAM STANDER SKYLDER SKYLDER SKYLDER SKYLDER SKYLDER SKYLDER SKYLDER SKYLDER SKYLDER SKY	457.17	48.0	68.0	19.17	438.00	<50	<0.50	<0.50	<0.50	<0.50	14	6.7	6.9
04/13/2005	P		457.17	48.0	68.0	14.84	442.33	<50	<0.50	<0.50	<0.50	<0.50	1.7	2.3	6.9
10/27/2005	P	energiosersoner habenuesralischi vokuru	457.17	48.0	68.0	17.38	439.79	<50	<0.50	<0.50	<0.50	<0.50	2.3	2.16	7.0
04/12/2006	P		457.17	48.0	68.0	14.84	442,33	<50	<0.50	<0.50	<0.50	<0.50	1.1	3.0	7.2
10/31/2006	P		457.17	48.0	68.0	18.74	438.43	<50	<0.50	<0.50	<0.50	<0.50	<0.50		7.55
MW-8															
3/23/1995	<u></u>	e	456.97	47.0	67.0	11.55	445,42	-	_	-	-	_	-		
5/31/1995	**	e	456.97	47.0	67.0	12.37	444.60	***							
8/31/1995	<u>-</u>	e	456.97	47.0	67.0	15.68	441,29				<u> </u>	-	-	-	
11/28/1995			456.97	47.0	67.0	14.15	442.82	<50	<0.5	<0.5	<0.5	<0.5	<3		

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, 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-8 Cont.															
2/22/1996		e	456.97	47.0	67.0	10.97	446.00								
5/23/1996		u grade e a anas	456.97	47.0	67.0	11.90	445.07		(i) ( <b></b> )						
8/8/1996		е	456.97	47.0	67.0	13.85	443.12								
11/7/1996			456.97	47.0	67.0	15.08	441.89	<50	<0.5	<0.5	<0.5	<0.5	- 3		
3/27/1997		е	456.97	47.0	67.0	12.96	444.01		**						
5/19/1997		e	456.97	47.0	67.0	14.35	442.62			-	-			n (2 <b></b> 04)	- ·
5/18/1998		е	456.97	47.0	67.0	12.97	444.00		***						
11/2/1998	-		456.97	47.0	67.0	26.01	430.96	<50	<0.5	<0.5	<0.5	<0.5	-3		l -
6/4/1999		c	456.97	47.0	67.0	15.53	441.44		-		**				
11/11/1999	P		456.97	47.0	67.0	16.67	440.30	<50	<0.5	<0.5	<0.5	<1	-3	1.01	-
6/20/2000	**	е	456.97	47.0	67.0	15.29	441.68							2.4	
8/29/2000		e	456.97	47.0	67.0	16.59	440.38			-	-		-	3.37	
11/29/2000	P		456.97	47.0	67.0	19.80	437.17	<50.0	<0.500	<0.500	<0.500	0.772	<2.50	1.35	***
<i>5/2/</i> 2001		e e e	456.97	47.0	67.0	22.12	434.85			-	-		-0.0		3.22
8/15/2001		е	456.97	47.0	67.0	27.63	429.34								
10/5/2001	P		456.97	47.0	67.0	27.65	429.32	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.07	- 4
1/21/2002		е	456.97	47.0	67.0	26.73	430.24								
4/26/2002		<sub>0.00</sub> e 0.00	456.97	47.0	67.0	26.39	430.58			-		-	0.0430.077.000.400		-
10/7/2002			456.97	47.0	67.0	18.43	438.54	<50	<0.50	<0.50	<0.50	0.86	<0.50	4.2	
05/01/2003		ſ	456.97	47.0	67.0	16.47	440,50	-	-	-	10 5	-			
10/27/2005			456.97	47.0	67.0	17.14	439.83								
04/12/2006			456.97	47.0	67.0	14.08	442.89		-	-		-			
10/31/2006			456.97	47.0	67.0	18.12	438.85								
MW-9															
3/23/1995	-	e	456.18	48.0	68.0	13.18	443.00		-		-		_		
5/31/1995		е	456.18	48.0	68.0	12.66	443.52	**							
8/31/1995	-	e	456.18	48.0	68.0	14.40	441.78			-	_		_		
11/28/1995		314004090050013262525010056355600046355600004	456.18	48.0	68.0	14.26	441.92	<50	<0.5	<0.5	<0.5	<0.5	<3		
2/22/1996	-	e	456.18	48.0	68.0	12.05	444:13		-	- (1) ( <u>-</u>				\$107 <u>8</u> 2070	- <u></u>
5/23/1996		е	456.18	48.0	68.0	12.07	444.11								33/KG33/40

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

				Top of	Bottom of		Water Level			Concentra	tions in (µ;	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	ĺ
Sample Date	P/NP	Comments	(feet msi)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-9 Cont.															
8/8/1996		e	456.18	48.0	68.0	14.12	442.06								
11/7/1996			456.18	48.0	68.0	15.42	440.76	<50	<0.5	<0.5	<0.5	<0.5	Ø		
3/27/1997		e	456.18	48.0	68.0	13.01	443.17								
5/19/1997	-	a de la ellectrica	456.18	48.0	68.0	14.60	441.58		() - ()		-		·	-	-01
5/18/1998		е	456.18	48.0	68.0	12.60	443.58								
11/2/1998	-	e e	456.18	48.0	68.0	25.08	431.10	-		-	-		- a		
6/4/1999	P		456.18	48.0	68.0	15.87	440.31	<50	<0.5	<0.5	<0.5	<0.5	ব		
11/11/1999	P		456,18	48.0	68.0	17.02	439.16	<50	<0.5	<0.5	<0.5	<1	ব	0.96	
6/20/2000		е	456.18	48.0	68.0	15.54	440.64					***		2.1	
8/29/2000	-	е	456.18	48.0	68.0	16.81	439,37	-		-	-	-		2.59	-
11/29/2000	P		456.18	48.0	68.0	18.81	437.37	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.81	
<i>5/2/</i> 2001	4-	e	456.18	48.0	68.0	22.09	434.09				<u></u>	_	-	-	
8/15/2001		е	456.18	48.0	68.0	27.59	428.59			**					
10/5/2001	<u> -</u>	q	456.18	48.0	68.0	27,63	428,55	<b>-5</b> 0	<0.50	<0.50	<0.50	<0.50	<2.5		-
10/5/2001	P	20000-0000-000000000000000000000000000	456.18	48.0	68.0	27.63	428.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.93	
1/21/2002		e e	456.18	48.0	68.0	26.77	429.41	-	-		1 10 <b></b> 11			-	
4/26/2002		e	456.18	48.0	68.0	26.41	429.77	***						-	
10/7/2002	P		456.18	48.0	68.0	18.85	437.33	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	
05/01/2003		c, e	456.18	48.0	68.0	17.84	438.34								
10/03/2003	P	d	456.18	48.0	68.0	18.69	437.49	<50	1.1	0.57	<0.50	<0.50	<0.50	4.9	6.8
04/06/2004	**************************************	e www.comens.comens.comens.comens.com	458.55	48.0	68.0	16.08	442.47	180907072390007749000749000					Entre California National Assessment		
10/28/2004	P		458.55	48.0	68.0	18.35	440.20	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.8	6.9
04/13/2005		e	458.55	48.0	68.0	14.09	444.46				***	==			
10/27/2005	P		458.55	48.0	68.0	17.41	441.14	ර0	0.51	<0.50	<0.50	<0.50	1.4	2.56	7.0
04/12/2006			458.55	48.0	68.0	14.18	444.37			***************************************			In the second se		
10/31/2006	P	100	458.55	48.0	68.0	17.97	440,58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	-	7.46
MW-10															
3/23/1995		e	456.85	32.0	52.0	14.86	441.99				***				
5/31/1995		e e	456.85	32.0	52.0	15.63	441.22	-	-	_			_	<u></u>	-
8/31/1995		<b>e</b>	456.85	32.0	52.0	14.40	442.45								

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, 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-10 Cont.															
11/28/1995			456.85	32.0	52.0	17.24	439.61	<50	<0.5	<0.5	<0.5	<0.5	<3		
2/22/1996	22	e e	456.85	32.0	52.0	14,30	442,55		1.0	<u> </u>	<u> </u>		0 10 1 <u>-</u>	<u> </u>	
5/23/1996		e	456.85	32.0	52.0	14.93	441.92								42013243000
8/8/1996		е	456.85	32.0	52.0	17.20	439.65		-		1 (a) <u></u>	_			
11/7/1996			456.85	32.0	52.0	18.25	438.60	<50	<0.5	<0.5	<0.5	<0.5	<3		25077311257458
3/27/1997		е е	456.85	32.0	52.0	15.77	441.08		60 F= 6		-		-		
5/19/1997		e	456.85	32.0	52.0	17.38	439.47	**							***
5/18/1998	-	e e	456.85	32.0	52.0	15.47	441.38			-	-	-			
11/2/1998			456.85	32.0	52.0	26.94	429.91	<50	<0.5	<0.5	<0.5	<0.5	ব		
6/4/1999	-	ė	456.85	32.0	52.0	17.19	439.66			-	-	-			
11/11/1999	P		456.85	32.0	52.0	19.35	437.50	<50	<0.5	<0.5	<0.5	<1	<3	0.68	
6/20/2000		e	456.85	32.0	52.0	17.92	438.93			-			-	2.9	
8/29/2000		e	456.85	32.0	52.0	19.15	437.70						••	1.54	
11/29/2000	P		456.85	32.0	52.0	21.30	435.55	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.95	
5/2/2001		e	456.85	32.0	52.0	29.95	426.90						##		
8/15/2001	20 and 1	1 4 1 e 1 2 1	456.85	32.0	52.0	30.74	426.11		6 2 6	66 1 <u>21</u> 151 1		-	_	-	
10/5/2001	P		456.85	32.0	52.0	30.95	425.90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.89	557537609309
1/21/2002	8 (b) <b></b> (c)	a we endow	456.85	32.0	52.0	28.97	427.88						-		3.42
4/26/2002		e	456.85	32.0	52.0	28.50	428.35					**		##	
10/7/2002		0.000 5.205	456.85	32.0	52.0	21.15	435.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.0	
05/01/2003		c, e	456.85	32.0	52.0	18.90	437.95	**			***				
10/03/2003	P	d	456.85	32.0	52.0	20.64	436,21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	7.1
04/06/2004		е	459.20	32.0	52.0	17.99	441.21	**							
10/28/2004	P		459.20	32.0	52.0	20.27	438.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.9	7.1
04/13/2005		e	459.20	32.0	52.0	16.25	442.95						-		***
10/27/2005	P		459.20	32.0	52.0	19.03	440.17	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.38	7.2
04/12/2006		100 M	459.20	32.0	52.0	14.95	444.25	***							**
10/31/2006	P		459.20	32.0	52.0	20.20	439.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	-	7.30
MW-11															
3/23/1995			455.07	38.0	45.0	17.34	437.73								

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Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

				Top of	Bottom of		Water Level			Concentra	tions in (us	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-11 Cont.							:								
5/31/1995			455.07	38.0	45.0	16.68	438.39	<50	<0.5	<0.5	<0.5	<0.5			
8/31/1995	01 (01 <u></u>	h	455.07	38.0	45.0	20.20	434.87	_						S 22.15	
11/28/1995		20000000000000000000000000000000000000	455.07	38.0	45.0	17.80	437.27	<50	<0.5	<0.5	<0.5	<0.5	<3	**	***
2/22/1996		h	455.07	38.0	45.0	15.97	439.10							<u>-</u>	87 <b></b> 164
5/23/1996			455.07	38.0	45.0	15.50	439.57	<50	<0.5	<0.5	<0.5	<0.5	<3		
8/8/1996		h	455.07	38.0	45.0	17.77	437,30		100 TT 100		-			-	
11/7/1996			455.07	38.0	45.0	17.45	437.62	<50	<0.5	<0.5	<0.5	<0.5	ও		
3/27/1997	a. a	h	455.07	38.0	45.0	15.77	439.30			-			-	8 <b></b>	
5/19/1997			455.07	38.0	45.0	16.80	438.27	<50	1.1	4.5	<0.5	2.2	⋖		
5/18/1998			455.07	38.0	45.0	15.38	439.69	<50	<0.5	<0.5	<0.5	<0.5	<3	-	
11/2/1998			455.07	38.0	45.0	24.15	430.92	<50	<0.5	<0.5	<0.5	<0.5	<3		
6/4/1999	P		455.07	38.0	45.0	18.39	436.68	<b>⊴</b> 50	<0.5	<0.5	<0.5	<0.5	3		
11/11/1999	P		455.07	38.0	45.0	18.62	436.45	<50	<0.5	<0.5	<0.5	<1	<3	1.01	***
6/20/2000	P		455.07	38.0	45.0	17.82	437,25	<50.0	0.631	<0.500	<0.500	<0.500	<2.50	4.1	
8/29/2000		h	455.07	38.0	45.0	19.50	435.57								
11/29/2000	P		455.07	38.0	45.0	20.60	434.47	<50.0	<0.500	<0.500	<0.500	1.63	<2.50	0.97	0 <b></b>
5/2/2001	P		455.07	38.0	45.0	22.42	432.65	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.04	
8/15/2001	I	h	455.07	38.0	45.0	27.41	427,66	- ·	-	s	-				-
10/5/2001	P		455.07	38.0	45.0	27.59	427.48	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.05	
1/21/2002		h	455.07	38.0	45.0	26.75	428.32		-	-	-		·	-	
4/26/2002	P		455.07	38.0	45.0	26.50	428.57	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.47	
10/7/2002			455.07	38.0	45.0	20.79	434.28	<50	<0.50	<0.50	<0.50	<0.50	1.0	1.4	
05/01/2003	P	С	455.07	38.0	45.0	20.55	434.52	<50	<0.50	<0.50	<0.50	<0.50	1.5	3.2	
10/03/2003	P	d	455.07	38.0	45.0	20.58	434.49	<50	<0.50	<0.50	<0.50	<0.50	3.1	3.0	7.1
04/06/2004	P		457.40	38.0	45.0	17.52	439.88	<50	<0.50	<0.50	<0.50	<0.50	14	5.1	6.7
10/28/2004	P		457.40	38.0	45.0	20.32	437.08	<50	<0.50	<0.50	<0.50	<0.50	29	1.3	7.2
04/13/2005	P		457.40	38.0	45.0	16.20	441,20	<50	<0.50	<0.50	<0.50	<0.50	3.7	2.8	7.0
10/27/2005	P		457.40	38.0	45.0	21.98	435.42	<50	<0.50	<0.50	<0.50	<0.50	21	1.04	7.2
04/12/2006		Well inaccessible m	457.40	38.0	45.0	#   SANSAGA (1884 (1884))									
10/31/2006			457.40	38.0	45.0			-						-	

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

				Top of	Bottom of		Water Level			Concentra	tions in (u	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total	1	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-12															
3/23/1995		h	455.04	18.0	34.5	15.54	439.50								
5/31/1995			455.04	18.0	34.5	15.66	439.38	<50	<0.5	<0.5	<0.5	<0.5			
8/31/1995		h	455.04	18.0	34.5	18.23	436.81						**		
11/28/1995			455.04	18.0	34.5	17.53	437.51	<50 □	<0.5	<0.5	<0.5	<0.5	ব	- ·	() <b></b> ()
2/22/1996		h	455.04	18.0	34.5	14.45	440.59								***
5/23/1996			455.04	18.0	34.5	14.88	440.16	<50	<0.5	<0.5	<0.5	<0.5	<3		I
8/8/1996		h	455.04	18.0	34.5	17.30	437.74					**			**
11/7/1996	-		455.04	18.0	34.5	18.30	436.74	<50	<0.5	<0.5	<0.5	<0.5	- 3	5 5 19	7701
3/27/1997		h	455.04	18.0	34.5	15.69	439.35			**			**		
5/19/1997			455.04	18.0	34.5	17.41	437.63	<50	<0.5	<0.5	<0.5	<0.5	3		77 <u></u>
5/18/1998			455.04	18.0	34.5	15.21	439.83	<50	<0.5	<0.5	<0.5	<0.5	<3		**
11/2/1998		m	455.04	18.0	34.5		-	_				-		_	W
6/4/1999		m	455.04	18.0	34.5		**							=+	
11/11/1999		m	455.04	18.0	34.5		_	-	30 Jan 310	95 <u>27</u> (9)		-		<u> </u>	_
6/20/2000		m	455.04	18.0	34.5			##						***	
8/29/2000		m	455.04	18.0	34.5	-	-			·					
11/29/2000		m	455.04	18.0	34.5		**				**				
5/2/2001	-	an on months	455.04	18.0	34.5	-	-					9		-	
8/15/2001		m	455.04	18.0	34.5					**					**
10/5/2001		m	455.04	18.0	34.5	_	-		-	-	-		10 St. 17 St. 12	-	
1/21/2002		m	455.04	18.0	34.5					n					**
4/26/2002		m	455.04	18.0	34.5			-		_			7		
10/7/2002		m	455.04	18.0	34.5		**								
05/01/2003		c, m	455.04	18.0	34.5		-			_	-	_	-	-	
10/03/2003		m	455.04	18.0	34.5		***			***					**
04/06/2004	P		457.37	18.0	34.5	18.14	439,23	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	6.4
10/28/2004	P		457.37	18.0	34.5	20.66	436.71	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	6.8
04/13/2005	P		457.37	18.0	34.5	16.25	441.12	<50	<0.50	<0.50	<0.50	0.55	<0.50	1.9	7.5
10/27/2005	P		457.37	18,0	34.5	19.77	437.60	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.81	7.0
04/12/2006	P		457.37	18.0	34.5	16.08	441.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	7.2
10/31/2006			457.37	18.0	34.5										

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

				Top of	Bottom of		Water Level			Concentra	tions in (u	p/[.)			
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-12															
MW-13							Annual Control of Washington			İ					
1/21/2002	P	Constant control (CIS)		3	- a	24.61		15,000	160	68	1,700	3,200	4,900/5,200	0.71	
4/26/2002	P	A Andrew A Annual Control of the Con			**	24.20		17,000	98	<100	1,700	3,400	1,600	0.6	
10/7/2002		b		8 6 F 6 6	- a	20.12		14,000	510	<50	2,200	2,300	2,800	0.8	00-5
05/01/2003	P	c				17.82		21,000	230	<50	1,900	2,300	1,600	1.9	
10/03/2003	P	d		<del>-</del>	_	19.91		19,000	570	55	1,900	2,300	2,400	0.8	6.9
04/06/2004	P		457.91			17.14	440.77	15,000	470	35	1,600	1,300	1,800	2.0	6.7
10/28/2004	P		457.91	-	<del>-</del>	18.83	439.08	18,000	350	<25	1,900	1,800	1,800	0.8	6.7
04/13/2005	P		457.91			15.23	442.68	9,700	110	<25	860	280	920	0.9	6.9
10/27/2005	P		457.91	_	_	18.45	439.46	11,000	120	12	1,500	450	580	0.75	6.8
04/12/2006	P	20072004 X2002 44 TD3 51 E00 X X X X X X X X X X X X X X X X X X	457.91			15.06	442.85	4,700	65	<10	450	69	470	1.2	6.8
10/31/2006	P		457.91		-	19.06	438.85	15,000	150	<25	1,700	400	710		6.87
VW-1															
8/29/2000	P		***	24	45	17.40		2,360	27.6	11.6	26.3	33.2	110	4.47	
11/29/2000	P			24.0	45	18.75		<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.46	397/3974
5/2/2001				24.0	45	21.59									
8/15/2001	P	S		24.0	45	24.62		1,200	6.3	4.3	1.7	1.3	20/17	40 ( <u>al</u> 18)	
8/15/2001		q		24.0	45			1,200	6.2	4.1	1.8	1.1	20/17		
10/5/2001	P	S		24.0	45	24.75	_	1,500	140	55	28	82	610/660	0.71	W-30
1/21/2002	P	S		24.0	45	24.59		6,700	810	350	270	1,100	2,600/3,400	0.69	
1/21/2002		q, s		24.0	45			8,000	770	320	96	1,100	2,500/3,200	-	
4/26/2002		q		24.0	45			350	24	1.6	5.9	1.6	45		
4/26/2002	P			24.0	45	24.27		370	26	2.1	6.6	1.7	48	0.5	-
10/7/2002	P	b		24.0	45	19.20		410	25	2.2	8	4.3	88	1.7	
05/01/2003	P	C	-	24.0	45	16.60		240	6.4	<0.50	3.3	1.3	36	1.7	**************************************
10/03/2003	P	d	**	24.0	45	18.82		180	1.5	<0.50	0.69	<0.50	12	1.1	7.3
04/06/2004	P		457.08	24.0	45	15.78	441.30	300	2.2	<0.50	3.0	1.3	13	2,4	7.2
10/28/2004	P		457.08	24.0	45	18.33	438.75	210	<0.50	<0.50	0.67	<0.50	<0.50	1.2	7.1
04/13/2005	P		457.08	24.0	45	14.02	443,06	740	1.8	<0.50	3.6	1.1	9.6	2.4	7.1

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, CA

							, Diva, Divel			_					
337.11 3			maa	Top of	Bottom of	EVENTY:	Water Level	ano.	<u> </u>	Concentra	tions in (µ		T		
Well and Sample Date	P/NP	Comments	TOC (feet msl)	Screen (ft bgs)	Screen (ft bgs)	DTW (feet bgs)	Elevation (feet msi)	GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	мтве	DO (mg/L)	»U
	A /13A	Comments	(teet msi)	(Ke nga)	(It bgs)	(Icct ogs)	(Icct hbi)	11115	Denzene	Tolucite	Denzene	Ayrenes	WIIDE	(mg/L)	hrr
VW-1 Cont.															
10/27/2005	P		457.08	24.0	45	17.65	439.43	1,500	78	73	36	81	13	1.64	7.3
04/12/2006	P		457.08	24.0	45	13.89	443.19	230	1.4	<0.50	2.2	0.76	1.6	1.4	7.3
10/31/2006	P		457.08	24.0	45	17.87	439.21	80	<0.50	<0.50	2.3	0.82	<0.50		7.76
VW-2												- The state of the			
8/29/2000		g		28	49.5	**									
11/29/2000	-	g		28	49.5	-				-					
5/2/2001				28	49.5										
10/5/2001	-	g		28	49,5			-			-				
1/21/2002		g		28	49.5			**						**	
4/26/2002		m		28	49.5	=					-		-		
10/7/2002		g		28	49.5		**						***		
05/01/2003		c, g		28	49.5	_	<u> </u>			<u></u>	-				<u> </u>
10/03/2003		Well inaccessible g		28	49.5	-							**		
04/06/2004	-		458.64	28	49.5	16.96	441.68			2200			-		200
10/28/2004			458.64	28	49.5	19.35	439.29								
04/13/2005 10/27/2005			458.64 458.64	28	49,5	15.51	443.13								
04/12/2006			458.64	28 28	49.5 49.5	18.50 14.92	440.14 443.72						***		
10/31/2006			458.64	28	49.5	19.01	439.63								
VW-3					1,5,10	12302	107100								<del>-</del>
234454##27WCZBANWAZGWWAZGNAZZGZGWWAZGWBA										*************************				38744 00 01 NO 44 A	
8/29/2000	P		1	15.5	24	17.93		25,400	3,540	10,600	1,280	43,000	44,700		
11/29/2000	P	S •		15.5	24	19.75		54,200	9,450	1,870	2,350	THE RESERVE OF THE PARTY OF THE	12,300/15,100	SALES TO STATE OF THE SALES OF	***
5/2/2001		k	-	15.5	24					\$ <b>5</b> 8 1	-	_		-	
VW-4															
8/29/2000		g		17	30										
11/29/2000	P	S	-	17	30	19.45		37,500	4,510	206	2,100	9,030	6,770/7,880	0.42	- 1
11/29/2000		q, s		17	30		***	36,100	3,700	206	1,850	7,890	6,430/8,460		
5/2/2001	=			17	30	21.66		-		1	-	-	-	-	77
8/15/2001				17	30		**								

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6113, 785 East Stanley Blvd., Livermore, 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
VW-4 Cont.															
10/5/2001		f		17	30										
1/21/2002		f	-	17	30			-						( <u> </u>	31126
4/26/2002		f		17	30		<del></del>		-						***
10/7/2002				17	30	19.25	-0.00		0 - 0	W W	000 <b></b> 00		0.00 0.00		(0 <b></b> 7)
05/01/2003		C	**	17	30	17.29									
10/03/2003	P	d, n		17	30	19.10	3 - T	48,000	3,300	1,700	3,600	21,000	1,600	10.5	6.7
04/06/2004			456.99	17	30	18.05	438.94		<b>-</b>						
10/28/2004			456.99	17	30	18.71	438.28	-	-	-	-		0 6 <b></b> 0 0	-	-
04/13/2005			456.99	17	30	14.62	442.37							**	
10/27/2005			456.99	17	30	18.00	438.99	-	_	-	-			-	1970-1970-1
04/12/2006		**************************************	456.99	17	30	14.42	442.57								
10/31/2006			456.99	17	30	18.30	438.69	-							

#### ABBREVIATIONS & SYMBOLS:

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

DO = Dissolved oxygen

DTW = Depth to water in ft bgs

ft bgs = Feet below ground surface

ft MSL = Feet above mean sea level

GRO = Gasoline range organics

GWE = Groundwater elevation measured in ft MSL

mg/L = Milligrams per liter

MTBE = Methyl tert-butyl ether

NP = Well not purged prior to sampling

P = Well purged prior to sampling

TOC = Top of casing measured in ft MSL

TPH-g = Total petroleum hydrocarbons as gasoline

µg/L = Micrograms per liter

#### FOOTNOTES:

- a = Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- b = Chromatogram Pattern: C6-C10.
- c = TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE analyzed using EPA Method 8260B beginning second quarter 2003 (05/01/03).
- d = This sample was analyzed 3 days after the EPA recommended holding time. The results may still be useful for their intended purpose.
- e = Well sampled annually in the fourth quarter.
- f = Well dry.
- g = Well inaccessible.
- h = Well sampled semi-annually in second and fourth quarters.
- k = Well abandoned.
- m = Unable to locate well.
- n = Sheen in well.
- q = Duplicate sample.
- r = Well removed from sampling schedule.
- s = Original sample analyzed by 8021B and confirmation by 8260.
- t = Bolts securing well box cover stripped at head. Unable to sample well.
- u = Hydrocarbon result partly due to individ, peak(s) in quant, range.
- v = pH measurement is believed to be erroneous.

#### NOTES:

Beginning in the second quarter 2003 (05/01/03) TPH-g and BTEX were analyzed using EPA Method 8260B, and MTBE was analyzed by EPA Method 8260B beginning in fourth quarter 2002. Prior to 05/01/03, TPH-g was analyzed by EPA Method 8015; BTEX by EPA Method 8021B (EPA method 8020 before 11/11/99); and MTBE by EPA Method 8021B. (EPA method 8020 before 11/11/99). Any MTBE detection by 8021B was confirmed by EPA Method 8260 beginning third quarter 2000 (08-29-00 results).

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.

Wells were resurveyed to NAVD '88 datum by URS Corporation on March 8, 2004.

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 #6113, 785 East Stanley Blvd., Livermore, CA

Well and				Concentration		5 Last Stain		,	
Sample Date	Ethanol	TBA	МТВЕ	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-1									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2	-1.0							10.00	
.0.400000000000000000000000000000000000	40		2 - 2	2 - 2	2 - 2	0.50	0 -0	2.50	
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-3									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	a property of the control of the con
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/31/2006	<300	<20	22	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
10/7/2002	<400	<200	260	<5.0	<5.0	<5.0	<5.0	<5.0	
5/1/2003	<100	25	86	<0.50	<0.50	<0.50	<0.50	<0.50	e de la companya de l
10/03/2003	<100	<20	22	<1.0	<1.0	<1.0	<0.50	<0.50	a
04/06/2004	<100	<20	17	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	22	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	<300	<20	1.9	<0.50	<0.50	<0.50	<0,50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-6									
10/7/2002	<40	<20	8	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20	12	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<500	<100	120	<5.0	<5.0	<5.0	<2.5	<2.5	a
04/06/2004	<5,000	<1,000	1,700	<25	<25	<25	<25	<25	
10/28/2004	<5,000	<1,000	3,100	<25	<25	<25	<25	<25	
04/13/2005	<10,000	<2,000	3,900	<50	<50	<50	<50	<50	25 (25 C)
10/27/2005	<10,000	<2,000	2,900	<50	<50	<50	<50	<50	b b
04/12/2006	<30,000	<2,000	3,400	<50	<50	<50	<50	<50	b
10/31/2006	<15,000	<1,000	3,400	<25	<25	<25	<25	<25	b
MW-7									

Table 2. Summary of Fuel Additives Analytical Data Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and	***************************************				ons in (µg/L)	J Last Start			
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-7 Cont.									
10/7/2002	<40	<20	41	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20	43	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<200	<40	49	<2.0	<2.0	<2.0	<1.0	<1.0	a a
04/06/2004	<100	<20	0.76	<0.50	<0.50	<0.50	<0.50	<0.50	43-CENTROPORTORIA I VICTORIA CONTRATORIA CONTRA
10/28/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	$oldsymbol{b}$ there is a superior of $oldsymbol{b}$
04/12/2006	<300	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	Ъ
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<b>b</b>
MW-8									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-9			-0120						
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/7/2002	<100	<20 <20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	
10/03/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
10/27/2005	<100	<20	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	ь
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
CASCALISM CONTRACTOR C					10.00	300000000000000000000000000000000000000	1000		
MW-10									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	20172279/JDDJJ3559/JDSJJ3559/JDSJJ359/JDSJJ559/JDSJ50/JDSJ559/JDSJ559/JDSJ559/JDSJ50/JDSJ559/JDSJ559/JDSJ559/JDSJ559/JDSJ559/JDSJ559/JDSJ559/JDSJ559
10/03/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	a a
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	### ##################################
10/27/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	Extransition countries successful accounting a rest provide the successful su
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
MW-11									
10/7/2002	<40	<20	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20		<0.50	<0.50	<0.50	<0.50	<0.50	**************************************
10/03/2003	<100	<20	3.1	<1.0	<1.0	<1.0	<0.50	<0.50	a
04/06/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	A 100 A
10/28/2004	<100	<20	29	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and				Concentrati	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-11 Cont.				Í					
04/13/2005	<100	<20	3.7	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	21	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006					-		-	-	Well inaccessible
MW-12									
04/06/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	AND CASE
04/13/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
MW-13									
10/7/2002	<4,000	<2,000	2,800	<50	<50	<50	<50	<50	
5/1/2003	<10,000	<2,000		<50	<50	<50	<50	<50	
10/03/2003	<10,000	<2,000	2,400	<100	<100	<100	<50	<50	a a
04/06/2004	<5,000	<1,000	1,800	<25	<25	<25	<25	<25	
10/28/2004	<5,000	<1,000	1,800	<25	<25	<25	<25	<25	
04/13/2005	<5,000	<1,000	920	<25	<25	<25	<25	<25	
10/27/2005	<2,000	<400	580	<10	<10	<10	<10	<10	
04/12/2006	<6,000	<400	470	<10	<10	<10	<10	<10	b
10/31/2006	<15,000	<1,000	710	<25	<25	<25	<25	<25	b
VW-1									
10/7/2002	<80	<40		<1.0	<1.0	<1.0	<1.0	<1.0	
5/1/2003	<100	<20	2	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	12	<1.0	<1.0	<1.0	<0.50	<0.50	S
04/06/2004	<100	<20	13	<0,50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	The state of the s
04/13/2005	<100	<20	9.6	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	13	<0.50	<0.50	<0.50	<0.50	<0.50	10000000000000000000000000000000000000
04/12/2006	<300	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	Burney Charles Commence b 1999 and the commence of the commenc
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b

## Table 2. Summary of Fuel Additives Analytical Data Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and				Concentrati	ons in (μg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
VW-2									
10/03/2003							-		Well inaccessible
VW-4									
10/03/2003	<100,000	<20,000	1,600	<1,000	<1,000	<1,000	<500	<500	a

#### ABBREVIATIONS & SYMBOLS:

-- = 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 = This sample was analyzed 3 days after the EPA recommended holding time. The results may still be useful for their intended purpose,
- b = Calibration verification for ethanol was within method limits but outside contract limits.

## 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 #6113, 785 East Stanley Blvd., Livermore, CA

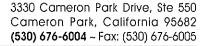
Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
3/23/1995	Northwest	0.035
5/31/1995	North-Northwest	0.028
8/31/1995	North-Northwest	0.03
11/28/1995	North-Northwest	0.025
2/22/1996	North-Northwest	0.031
5/23/1996	North-Northwest	0.025
8/8/1996	North	0.019
11/7/1996	North-Northeast	0.019
3/27/1997	North-Northwest	0.021
5/19/1997	North	0.019
5/18/1998	North	0.02
11/2/1998	North	0:02
6/4/1999	North	0.02
11/11/1999	North	0.03
6/20/2000	North-Northeast	0.014
8/29/2000	North-Northeast	0.013
11/29/2000	North-Northwest	0.026
5/2/2001	Northeast	0.026
8/15/2001	Northeast	0.047
10/5/2001	Northeast	0.031
1/21/2002	Northeast	0.033
4/26/2002	Northeast	0.031
10/7/2002	Northeast	0.017
5/1/2003	North-Northeast	0.011
10/3/2003	North-Northeast	0.016
4/6/2004	North-Northeast	0.013
10/28/2004	North-Northeast	0.014
4/13/2005	North-Northwest	0.02
10/27/2005	North-Northwest	0.01 to 0.03
4/12/2006	Northeast	0.01
10/31/2006	Northeast	0.014

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

## APPENDIX A

STRATUS EVIRONMENTAL, INC. GROUNDWATER SAMPLING DATA PACKAGE (INCLUDES LABORATORY REPORT AND CHAIN OF CUSTODY DOCUMENTATION AND FIELD DATA SHEETS)

\_





November 21, 2006

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

Re:

Groundwater Sampling Data Package, BP Service Station No. 6113, located at 785 E. Stanley, Livermore, California (Quarterly Monitoring performed on October 31, 2006)

## **General Information**

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

Phone Number: (530) 676-6000

On-Site Supplier Representative: Vince Zalutka

Date: October 31, 2006

Arrival: 03:45 Departure: 13:50

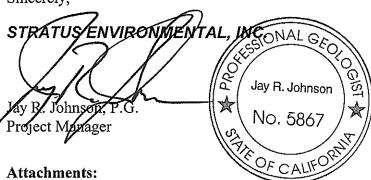
Weather Conditions: Clear Unusual Field Conditions: None

Scope of Work Performed: Quarterly monitoring and sampling

Variations from Work Scope: None noted

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

Sincerely,



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

CC: Mr. Paul Supple, BP/ARCO

# BP GEM OIL COMPANY

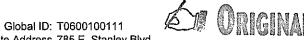
SOURCE RECORD BILL OF LADING FOR NON-HAZARDOUS PURGEWATER RECOVERED GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGEWATER WHICH HAS BEEN RECOVERED FROM GROUNDWATER WELLS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED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

The contractors performing this work are Stratus Environmental, Inc. [Stratus, 3330 Cameron Park Drive, Suite 550, Cameron Park, CA 95682, (530) 676-6004], and Dulous Environmental, Inc. [Dulous, PO Box 2559, Orangevale, CA 95662, (916) 990-0333]. Stratus is authorized by BP GEM OIL COMPANY to recover, collect, and apportion into loads the nonhazardous well purgewater that is drawn from wells at BP GEM Oil Company facilities and deliver that purgewater to BP GEM Oil Company facility 5786 located in West Sacramento, California. 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:

TYPE A BI	LL OF LADING
6 11 3 Station #	
1	tanley, Liverman
Total Gallons Collected From Gr	oundwater Monitoring Wells:
Added Equipment Rinse Water	Any Other
TOTAL GALS. RECOVERED 463.5	Adjustmentsloaded onto Stratus vehicle #
Stratus Project #	time date
Signature V. Zatu	tu
**************************************	**************************************
	1800 10 131 126





Site Address 785 E. Stanley Blvd.
City Livermore, CA
Sampled By: VinceZ

Site Number 6113 Project PM Jay Johnson Date 10/31/06

10-31-06 Date: Signiture

		Water Level	Data			,	Purge Vo	olume Ca	lculations		W	ell Pur	ge Met	hod	Sa	mple Rec	ord	Field Data
Well ID	Time	Depth to water feet	Top of Screen feet	Total Depth of well feet	Qtr. Meas. Depth of Well feet	Casing Water Column (A)	Well Diameter (Inches)	Multiplier Value (B)	Three Casing Volumes (Gallons)	Actual Water Purged (Gallons)	No Purge	Bailer	Pump	Other	DTW At Sample Time	Sample I.D.	Sample time	Dissolved Oxygen (mg/L)
MW-1	0412	19.18		44.55	44.55	25.37	2	0.5	12.5		X					MW-1	2/5	*
MW-2	0409	19.48		38.62	38.62	19.24	2	- 0.5	9.5		Х					MW-2	N/5	,
MW-3	0518	19.14		38.98	38.98	19.84	\$2	.5	39.5	39.5			X		19.33	MW-3	0915	45.0
MW-4	0503	19.67		26.68	26.68	7.01	4	2	14	14		χ			20.14	MW-4	0707	12.D
MW-6	0608	18.85		66.3	66.5	47.65	4	2	95	95			X		18.90	MW-6	1150	N/M
MW-7	0557	18.74		67.45	67.45	48.71	4	2	97	97			X		18.83	MW-7	1023	25.2
8-WM	0438	1842		66.44	66.44		4	2	96		Х					MW-8	N/5	
MW-9	0449	17.97		67.92	67.80	49.83	4	2	100	100			$\times$		17.91	MW-9	1330	27.2
MW-10	0514	20.20		59.75	50.00	29.8	4	2	60	60					20.29	MW-10	0841	60.2
MW-11				45			2	0.5								MW-11	11/5	<u> </u>
MW-12				34.04			2	0.5								MW-12	10/5	<u> </u>
MW-13	0611	19.06		30.39	30.30	10.7	2	.5	5個	5		X			25.00	MW-13	0758	13.5
VW-1	0455	17.87		44.34	44.34	26.47	4	2	53	53			X		17.90	VW-1	1231	28.(
VW-2	0527	19.01		48.95	48.95	29.94	4	2	60		X					VW-2	W/5	
VW-4	0541	18.30		24.5	24.5	6.2	4	2	12		Х					VW-4	N/9	
											<u></u>							
							S											
TB 6113 1	0 31 2006			12			70	ļ			<b>]</b>				TB 6113 1	0 31 2006	0645	
											<b></b>							
								<u> </u>										
i							<u> </u>				<u> </u>							
																<u> </u>		<b></b>
							<u> </u>											

2" = 0.5 3" = 1.0 4" 2.0 6"=4.4



, · ,

# Site Address 785 E. Stanley Blvd. City Livermore, CA Sampled By: VinceZ

 Site Number
 6113

 Project No
 0

 Project PM
 Jay Johnson

 Date
 10/31/06



					ACA P		N	.,,.								
Well ID		MV	V-1		Well ID MW-2											
purge start time	<b>?</b>		<u>,                                      </u>		purge start time  Temp C pH cond gallons											
	Temp C	рН	cond	gallons		Temp C	cond	gallons								
time				·	time				<u></u>							
time					time		***************************************									
time					time											
time					time			]								
purge stop time	9				purge stop time											
Well ID		V-3 09	715	Well ID MW-4 0707												
purge start time	084	7	No	Obor	purge start time Bailer Life Odor											
	Temp C	pН	cond	gallons		Temp C	pН	cond	gallons							
time	16.3	7.41	660	8	time	18.8	7.13	654	&							
time	16.6	7.52	683	18	time	18.5	7.54	654 <b>3667</b>	フ`							
time	17.3	7.64	529	39.5	time	18.1	7.63	658	14							
time				·	time											
purge stop time	0907	7			purge stop time											
Well ID		MV	V-6		Well ID MW-7 /023											
Purge start tim	e 1110		No	Odor	Purge start time 0940 No Odor											
	Temp C	рН	cond	gallons		Temp C		cond	gallons							
time	18.4	7.80	7/7	R	time			697	8							
time	18.2	7.83	720	47	time	17.8	7.80	722	46							
time	20.2	16.91	40.09	_	time	20.7	7.55	712	97							
time	20.2	10,36	494	95	time											
purge stop time	1140				purge stop time /0/3											
Well ID		MV	V-8		MW-9 /330											
purge start tim	e				purge start tim	e 1244	, L,	teo	der.							
	Temp C	pН	cond	gallons		Temp C	рН	cond	gallons							
time					time	16.6	7.98	669	<b>X</b>							
time					time	16.8	7.89	669	50							
time					time	18.0	7.46	65/	100							
time					time											
purge stop tim	e .				purge stop tim	ie 1320										



Site Address 785 E. Stanley Blvd.
City Livermore, CA

Sampled By: VinceZ

 Site Number
 6113

 Project No
 0

 Project PM
 Jay Johnson

 Date
 10/31/06



Well ID		MW	/-10 ව	Well ID MW-11											
purge start time	081				purge start time	<u> </u>									
	Temp C	рН	cond	gallons		Temp C	pН	cond	gallons						
time 😘	16.6	אריב.	707	ø	time										
time	16.6	7.78	715	30	time										
time	19.1	7.30	559	60	time										
time					time										
purge stop time	0833				purge stop time										
Well ID		MW	/-12		Well ID		MV	V-13							
purge start time	}			purge start time Bailer - odor											
	Temp C	рН	cond	gallons			pН	cond	gallons						
time					time	Temp C	6,87	1191	\$						
time					time	19,4	6684	6281	3.8						
time					time	19:0	16:87	1199	5· O						
time					time										
purge stop time					purge stop time										
Well ID		VV	V-1 <u>/</u>	23/	Well ID VW-2										
Purge start time	120	3	No	Odor	Purge start time										
	Temp C	pН	cond	gallons		Temp C	pН	cond	gallons						
time	17.3	8.23	689	8	time										
time	17.1	8.09	686	30	time										
time	17.5	7.76	660	53	time										
time			<b></b>		time										
purge stop time	122	3			purge stop time										
Well ID		VV	V-4		Well ID 0										
purge start time	POMOT	<i>f</i>			purge start time	9		T							
	Temp C	pН	cond	gallons		Temp C	pН	cond	gallons						
time					time			-							
time					time										
time					time										
time					time										
purge stop time				purge stop time											

## **Chain of Custody Record**

Project Name:	ARCO 6113				
BP BU/AR Region/F	Infos Segment:	BP > Americas > \	West > Retail >	CA > Alameda	> 6113
State or Lead Regul					
	Requested Due 1	Date (mm/dd/yy):	STD	TAT	

On-site		0345	Temp:	60'5	
Off-site	Time:	1350	Temp:	70'5	
Sky Con	ditions:	<u> </u>	leas		
Meteoro			NIA		
Wind Sp	eed;		Direction	1;	

													Consultant/Contractor: Stratus Environmental, Inc.													
Address: 885 Jarvis Drive					BP/AR Facility Address: 785 Stanley Blvd., Livermore, CA								Address: 3330 Cameron Park Drive, Suite 550													
	an Hill, CA 95937					Site Lat/Long:									Cameron Park, CA 95682											
Lab PM: Lisa Race						California Global ID #: <b>TO600 [00]]</b>								Consultant/Contractor Project No.:												
Tele/Fax: 408-782-8156 408-782-6308 (fax)														Consultant/Contractor PM: Jay Johnson												
BP/A	R PM Contact: Paul Supple					Provision or RCOP (circle one) Provision								Tele/Fax: (530) 676-6000 / (530) 676-6005												
Addre	ess: 2010 Crow Canyon Place, Suite	e 150				Phase/WBS:		04-Mon	toring	g							Report Type & QC Level: Level 1 with EDF									
L	San Ramon, CA													E-mail EDD To: cjewitt@stratusinc.net												
Tele/l						Cost Element:		01-Cont	actor								nvoi	e to:	Atlar	itic R	ichfie	eld Co.				
Lab I	Sottle Order No:			M:	atrix					P	reservative				Re	ques	ted A	nalys	s			]	52.			
Item No.	Sample Description	Time	9007 Date	Soil/Solid	Water/Liquid Air	Laboratory No.	No. of Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO3	нсі	Methanol	1000 VOTE	BTEX/TPH	BTEX/Oxy*/TPHg	EPA 8260	EPA 8270	GRO- BTEX	OXY S	A S	Ethanol O		Sample Pomments: BE, TAM ethanol,	: Oxyge IE, DIPI	t/Long nates i E, EtBl	and nclude E, TBA,
	mW-3	0915	1031	1	Х		3				У	П						× ×	<u>त×</u>	1 ×	X					
	mw -4	0707	5	П	$\langle \Box$		6				/							( /	717	7	1					
	MW - 6	1150	3		$\Pi\Pi$		3				5								17	17	5				***************************************	
	MW - 7	1023					3	3						П			711	T	T							
	MW - 9	1330					3																			
	NW-10	0841					3				)							317	7	1	5					
	MW-13	0758	4	П	5		3				5							ζ	13	15	5					
	VW-1	1231	ادمر		×		3				X							x 7	$\langle \chi$	1 ×	×			$\overline{}$	4.	3 00
	TB 6113 10 312006	0645	1031	1	X		2			~		H	1			_	_		-	-	<b>—</b>		HOLD	í.		
Samp	ler's Name: Viuce			(a		Relinquished By / Affiliation						┪	Date	ie		Accepted By / Affiliation					OR		Date	Time		
Samp	ler's Company: 578					Dine	13	fali	处人	<u> </u>			Į4	-31-06	5	7					=		7	0/31	1545	
Shipment Date: 10 - 31 - 06					Dina Zalvitha									7		and							/			
Shipment Method: 3 TRATUS															_\_											
Shipr	nent Tracking No:	· · · ·																								
Specia	al Instructions:	Please	cc result	s to b	pvalle	y@secor.com																				
Custo	ody Seals In Place Yes No			Tem	p Blan	ık Yes <u>No</u>					Cooler Tempera	ture on	Rec	eipt	o <sub>F/0</sub>	2					Trip	p Blani	k Yes	No_		

STD

TAT



15 November, 2006

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

RE: ARCO #6113, Livermore, CA Work Order: MPK0052

Enclosed are the results of analyses for samples received by the laboratory on 11/01/06 08:00. 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 #6113, Livermore, CA MPK0052
3330 Cameron Park Dr., Suite 550 Project Number: G0C54- Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 11/15/06 14:21

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-3	MPK0052-01	Water	10/31/06 09:15	11/01/06 08:00
MW-4	MPK0052-02	Water	10/31/06 07:07	11/01/06 08:00
MW-6	MPK0052-03	Water	10/31/06 11:50	11/01/06 08:00
MW-7	MPK0052-04	Water	10/31/06 10:23	11/01/06 08:00
MW-9	MPK0052-05	Water	10/31/06 13:30	11/01/06 08:00
MW-10	MPK0052-06	Water	10/31/06 08:41	11/01/06 08:00
MW-13	MPK0052-07	Water	10/31/06 07:58	11/01/06 08:00
VW-1	MPK0052-08	Water	10/31/06 12:31	11/01/06 08:00
TB611310312006	MPK0052-09	Water	10/31/06 06:45	11/01/06 08:00

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 #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

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

i e									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MPK0052-01) Water	Sampled: 10/31/06 09:15	Received:	11/01/06	08:00					
Gasoline Range Organics (C4-	-C12) 400	50	ug/l	l	6K08020	11/08/06	11/08/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-	d4	106 %	60-	145	11	n	"	rr .	
MW-4 (MPK0052-02) Water	Sampled: 10/31/06 07:07	Received:	11/01/06	08:00					
Gasoline Range Organics (C4-C	C12) ND	50	ug/l	1	6K08020	11/08/06	11/08/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-	d4	108 %	60-	145	"	n	"	"	
MW-6 (MPK0052-03) Water	Sampled: 10/31/06 11:50	Received:	11/01/06	08:00					
Gasoline Range Organics (C4-	·C12) 2700	2500	ug/l	50	6K06010	11/06/06	11/07/06	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-	d4	90 %	60-	145	"	"	"	n	
MW-7 (MPK0052-04) Water	Sampled: 10/31/06 10:23	Received:	11/01/06	08:00					
Gasoline Range Organics (C4-C	(12) ND	50	ug/l	1	6K06010	11/06/06	11/07/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-	d4	90 %	60-	145	**	"	"	"	
MW-9 (MPK0052-05) Water	Sampled: 10/31/06 13:30	Received:	11/01/06	08:00					
Gasoline Range Organics (C4-C	12) ND	50	ug/l	1	6K06010	11/06/06	11/07/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-	d4	88 %	60-	145	"	**	n	n	
MW-10 (MPK0052-06) Water	Sampled: 10/31/06 08:41	Received	: 11/01/0	6 08:00					
Gasoline Range Organics (C4-C	12) ND	50	ug/l	1	6K06010	11/06/06	11/07/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-	d4	90 %	60-	145	u	п	"	"	
MW-13 (MPK0052-07) Water	Sampled: 10/31/06 07:58	Received	: 11/01/0	6 08:00					
Gasoline Range Organics (C4-	C12) 15000	2500	ug/l	50	6K09007	11/09/06	11/09/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-	d4	136 %	60-	145	н	et	rr	u	HY





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Total Purgeable Hydrocarbons by GC/MS (CA LUFT)

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
VW-1 (MPK0052-08) Water San	npled: 10/31/06 12:31	Received:	11/01/06	08:00					
Gasoline Range Organics (C4-C12	) 80	50	ug/l	1	6K06010	11/06/06	11/07/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		87 %	60-	145	n	н	n	H	





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MPK0052-01) Water	Sampled: 10/31/06 09:15	Received:	11/01/06 08	3:00					
tert-Amyl methyl ether	ND	0.50	ug/l	1	6K08020	11/08/06	11/08/06	EPA 8260B	
Benzene	5.5	0.50	н	#1	"	ri ri	D	tr .	
tert-Butyl alcohol	ND	20	**	Ħ	n	11	l7	II .	
Di-isopropyl ether	ND	0.50	H	U	Ħ	U	įί	H	
1,2-Dibromoethane (EDB)	ND	0.50	U	U	ø	0	II	н	
1,2-Dichloroethane	ND	0.50	U	II.	U	D	И	n	
Ethanol	ND	300	II .	"	0	n	И	н	
Ethyl tert-butyl ether	ND	0.50	II .	H	"	tr	11	II	
Ethylbenzene	5.5	0.50	Ð	I†	D)	H	<b>3</b> 1	н	
Methyl tert-butyl ether	22	0.50	В	lt.	0	ls.	*1	†I	
Toluene	ND	0.50	I <del>)</del>	If	0	"	U	#1	_
Xylenes (total)	9.6	0.50	lt	11	I†	H	U		
Surrogate: Dibromofluorometha	ne	96 %	75-13	9	н	"	"	ń	
Surrogate: 1,2-Dichloroethane-a	14	106 %	60-14.	5	"	"	"	ıı .	
Surrogate: Toluene-d8		99%	70-130	9	"	"	"	"	
Surrogate: 4-Bromofluorobenzer	<i>1</i> е	104 %	60-120	9	u	U	n	"	
MW-4 (MPK0052-02) Water	Sampled: 10/31/06 07:07	Received:	11/01/06 08	3:00					
tert-Amyl methyl ether	ND	0.50	ug/l	ĩ	6K08020	11/08/06	11/08/06	EPA 8260B	
Benzene	ND	0.50	0	11	n	ı	п	ti	
tert-Butyl alcohol	ND	20	I)	и	It	¥	U	U	
Di-isopropyl ether	ND	0.50	if	jı	H	H	D	0	
1,2-Dibromoethane (EDB)	ND	0.50	It	þi	И	n	If	H	
1,2-Dichloroethane	ND	0.50	II	п	n	ø	lt.	IF	
Ethanol	ND	300	н	tı	#1	U	и	и	
Ethyl tert-butyl ether	ND	0.50	"	U	ti	O.	и	п	
Ethylbenzene	ND	0.50	11	U	a	Đ.	н	н	
Methyl tert-butyl ether	ND	0.50	11	"	a	O.	п	n	
Toluene	ND	0.50	п	U	0	<b>(†</b>	11	п	
Xylenes (total)	ND	0.50		D	0	It .	71	H	
Surrogate: Dibromofluorometha		98 %	75-130	າ	"	rr ·	11	"	
	пе	90 70	75-150	,					
Surrogate: 1,2-Dichloroethane-a		108 %	60-14		"	"	"	"	
Surrogate: 1,2-Dichloroethane-a Surrogate: Toluene-d8				5	"	"	n	n n	





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (MPK0052-03) Water	Sampled: 10/31/06 11:50	Received:	11/01/06 0	8:00					
tert-Amyl methyl ether	ND	25	ug/l	50	6K06010	11/06/06	11/07/06	EPA 8260B	
Benzene	ND	25	n	R	"	If	*1	Ħ	
tert-Butyl alcohol	ND	1000	H	If	11	R	Ħ	<b>?</b> I	
Di-isopropyl ether	ND	25	H	lt .	H	н	a	11	
1,2-Dibromoethane (EDB)	ND	25	H	и	19	п	u	ţ1	
1,2-Dichloroethane	ND	25	If	и	17	n	u	u	
Ethanol	ND	15000	R	11	jŧ	#	0	(1	IC
Ethyl tert-butyl ether	ND	25	И	А	И	a a	u	U	
Ethylbenzene	ND	25	)ı	n	II	11	H	ti.	
Methyl tert-butyl ether	3400	25	ji	h	N	H	H	th.	
Toluene	ND	25	II .	73	н	0	)+	#	_
Xylenes (total)	ND	25	n	Ð	ti	0	)#	н	
Surrogate: Dibromofluorometha	ne	89 %	75-13	0	H	u	#	rr	
Surrogate: 1,2-Dichloroethane-a	14	90 %	60-14	5	·	"	"	rr .	
Surrogate: Toluene-d8		91%	70-13	0	n	и	и	H	
Surrogate: 4-Bromofluorobenzen	ie	90 %	60-12	0	"	"	u	11	
MW-7 (MPK0052-04) Water	Sampled: 10/31/06 10:23	Received:	11/01/06 0	8:00					
tert-Amyl methyl ether	ND	0.50	ug/l	1	6K06010	11/06/06	11/07/06	EPA 8260B	
Benzene	ND	0.50	U	11	U	ıı.	0	ti	
tert-Butyl alcohol	ND	20	U	17	υ	)r	0	ħ	
Di-isopropyl ether	ND	0.50	0	H	II .	п	α	11	
1,2-Dibromoethane (EDB)	ND	0.50	U	P	U	n	n	11	
1,2-Dichloroethane	ND	0.50	0	1)	"	I#	11	†I	
Ethanol	ND	300	0	D	U	Iŧ	11	н	IC
Ethyl tert-butyl ether	ND	0.50	<b>5</b> 1	0	q	If	Ħ	19	
Ethylbenzene	ND	0.50	†I	n	U	If	11	†I	
Methyl tert-butyl ether	ND	0.50	Ħ	D	U	11	n	tt	
Toluene	ND	0.50	ti	0	U	jr	H	ti	
Xylenes (total)	ND	0.50	tı	0	U	lt	et .	†I	
Surrogate: Dibromofluoromethal	ne	92 %	75-13	0	"	"	"	"	
Surrogate: 1,2-Dichloroethane-a	14	90 %	60-14	5	"	"	n	u	
Surrogate: Toluene-d8		90 %	70-13	0	"	н	u	n	
Surrogate: 4-Bromofluorobenzen	ne e	90 %	60-12	0	n .	n	"	n	





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (MPK0052-05) Water Sam	ipled: 10/31/06 13:30	Received:	11/01/06 08	:00					
tert-Amyl methyl ether	ND	0.50	ug/l	l	6K06010	11/06/06	11/07/06	EPA 8260B	
Benzene	ND	0.50	1)	111	11	11	†I	ti	
tert-Butyl alcohol	ND	20	It	If	I†	Ji	4	ti	
Di-isopropyl ether	ND	0.50	Ħ	н	İt	ŋ	U	U	
1,2-Dibromoethane (EDB)	ND	0.50	н	н	н	ti	II.	II.	
1,2-Dichloroethane	ND	0.50	н	ři.	н	u	#	I†	
Ethanol	ND	300	ti .	**	77	U	"	If	IC
Ethyl tert-butyl ether	ND	0.50	H	O	H	U	И	п	
Ethylbenzene	ND	0.50	U	U	n	lf	н	II	
Methyl tert-butyl ether	ND	0.50	U	H	U	I#	#	ti	
Toluene	ND	0.50	II .	17	v	If	a	Ħ	_
Xylenes (total)	ND	0.50	II .	II .		lt	(1	11	
Surrogate: Dibromofluoromethane		92 %	75-130	)	"	**	II	II .	
Surrogate: 1,2-Dichloroethane-d4		88 %	60-145	i	"	"	n	H	
Surrogate: Toluene-d8		90 %	70-130	)	n	**	II .	n	
Surrogate: 4-Bromofluorobenzene		89 %	60-120	)	"	"	n	n	
MW-10 (MPK0052-06) Water Sai	mpled: 10/31/06 08:41	Received	l: 11/01/06 0	8:00					
tert-Amyl methyl ether	ND	0.50	ug/l	1	6K06010	11/06/06	11/07/06	EPA 8260B	
Benzene	ND	0.50	II .	I+	v	п	U	11	
tert-Butyl alcohol	ND	20	U	It	II.	II	ø	u	
Di-isopropyl ether	ND	0.50	0	It	l?	h	o o	0	
1,2-Dibromoethane (EDB)	ND	0.50	ii.	If	P	H	U	II .	
1,2-Dichloroethane	ND	0.50	U	It.	H	н	0	0	
Ethanol	ND	300	0	и	H	p	0	0	IC
Ethyl tert-butyl ether	ND	0.50	It	, ,	je .	71	If	II	
Ethylbenzene	ND	0.50	R	и	н	ŧı	17	If	
Methyl tert-butyl ether	ND	0.50	li.	н	н	tı	h	) <del>t</del>	
Toluene	ND	0.50		"	"	"	"	н	
Xylenes (total)	ND	0.50	n	71	71		þi	"	
11) 101100 (10141)									
Surrogate: Dibromofluoromethane		92 %	75-130	)	p	n	и	"	
		92 % 90 %	75-130 60-145		n	"	n n	"	
Surrogate: Dibromofluoromethane				i					





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13 (MPK0052-07) Water	Sampled: 10/31/06 07:58	Received	: 11/01/06	08:00					
tert-Amyl methyl ether	ND	25	ug/l	50	6K09007	11/09/06	11/09/06	EPA 8260B	
Benzene	150	25	ti	U	ti	II	JI	l†	
tert-Butyl alcohol	ND	1000	O	ø	tt	D)	II	ц	
Di-isopropyl ether	ND	25	0	0	(I	P	И	И	
1,2-Dibromoethane (EDB)	ND	25	0	0	0	tt.	И	U	
1,2-Dichloroethane	ND	25	0	0	0	11	11	н	
Ethanol	ND	15000	"	17	"	12	ıı	ri .	IC
Ethyl tert-butyl ether	ND	25	U	l†	li.	lt .	Ħ	II	
Ethylbenzene	1700	25	11	P	11	17	H	п	
Methyl tert-butyl ether	710	25	D	I+	U	17	11	H	
Toluene	ND	25	I)	17	U	If	11	a	-
Xylenes (total)	400	25		17	U	11	"		
Surrogate: Dibromofluoromethane		112%	75-13	30	"	"	п	п	
Surrogate: 1,2-Dichloroethane-d4		136 %	60-14	<b>1</b> 5	"	"	n	n	
Surrogate: Toluene-d8		98 %	70-13	30	"	"	n .	**	
Surrogate: 4-Bromofluorobenzene		96 %	60-12	20	"	"	II	п	
VW-1 (MPK0052-08) Water Sa	impled: 10/31/06 12:31	Received:	11/01/06 0	8:00					
tert-Amyl methyl ether	ND	0.50	ug/l	1	6K06010	11/06/06	11/07/06	EPA 8260B	
Benzene	ND	0.50	D	It	If	11	II .	II .	
tert-Butyl alcohol	ND	20	It	II	It	Ħ	U	Is	
Di-isopropyl ether	ND	0.50	It	n	и	<b>†1</b>	n	l <del>y</del>	
1,2-Dibromoethane (EDB)	ND	0.50	и	и	"	ti ti	IF	lf .	
1,2-Dichloroethane	ND	0.50	н	*1	n	11	И	It	
Ethanol	ND	300	н	ίΙ	11	u	h	II	IC
Ethyl tert-butyl ether	ND	0.50	11	0	9	u	И	И	
Ethylbenzene	2.3	0.50	tı	(I	(1	D.	n	И	
Methyl tert-butyl ether	ND	0.50	n	0	0	H	#	H	
Toluene	ND	0.50	11	U	0	II .	п	н	
Xylenes (total)	0.82	0.50	tl	U	0	If	ti	11	
o . bu o .		88 %	75-13	30	v	n	II	11	
Surrogate: Dibromofluoromethane		00 70							
Surrogate: Dibromoftuoromethane Surrogate: 1,2-Dichloroethane-d4		87%	60-14	<i>‡5</i>	n	"	n	"	
•			60-14 70-13		n n	"	n	11	





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

### 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 6K06010 - EPA 5030B P/T / LUFT	GCMS									
Blank (6K06010-BLK1)				Prepared:	11/06/06	Analyzed	l: 11/07/06			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.18		"	2,50		87	60-145			
Laboratory Control Sample (6K06010-BS2)				Prepared of	& Analyze	d: 11/06/	06			
Gasoline Range Organics (C4-C12)	404	50	ug/l	440		92	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.26		u	2.50		90	60-145			
Laboratory Control Sample Dup (6K06010-BS	SD2)			Prepared o	& Analyze	d: 11/06/	06			
Gasoline Range Organics (C4-C12)	405	50	ug/l	440		92	75-140	0,2	20	
Surrogate: 1,2-Dichloroethane-d4	2.18		11	2.50		87	60-145			
Batch 6K08020 - EPA 5030B P/T / LUFT	GCMS									
Blank (6K08020-BLK1)				Prepared a	& Analyze	ed: 11/08/	06			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.61		u	2.50		104	60-145			
Laboratory Control Sample (6K08020-BS2)				Prepared &	& Analyze	d: 11/08/0	06			
Gasoline Range Organics (C4-C12)	398	50	ug/l	440		90	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.62		"	2.50		105	60-145			
Laboratory Control Sample Dup (6K08020-BS	(D2)			Prepared d	& Analyze	d: 11/08/0	06			
Gasoline Range Organics (C4-C12)	395	50	ug/l	440		90	75-140	0.8	20	
Surrogate: 1,2-Dichloroethane-d4	2.63		n	2.50		105	60-145			
Batch 6K09007 - EPA 5030B P/T / LUFT	GCMS									
Blank (6K09007-BLK1)				Prepared &	& Analyze	:d: 11/09/0	06			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

# 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 6K09007 - EPA 5030B P/T /	LUFT GCMS						*			
Laboratory Control Sample (6K09007	-BS2)			Prepared	& Analyze	ed: 11/09/	06			
Gasoline Range Organics (C4-C12)	444	50	ug/l	440		101	75-140			
Surrogate: 1,2-Dichloroethane-d4	3.05		"	2.50		122	60-145			
Laboratory Control Sample Dup (6K0	9007-BSD2)			Prepared	& Analyze	ed: 11/09/	06			
Gasoline Range Organics (C4-C12)	439	50	ug/l	440	***************************************	100	75-140	1	20	
Surrogate: 1,2-Dichloroethane-d4	3.01		"	2,50		120	60-145			





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Ameliuto	D1+	Reporting	T Indian	Spike	Source	WREC	%REC	DDD	RPD	Nr. c.
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6K06010 - EPA 5030B P/T	/ EPA 8260B									
Blank (6K06010-BLK1)				Prepared:	11/06/06	Analyzed	: 11/07/06			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	5.0	ţ1							
Di-isopropyl ether	ND	0.50	n							
1,2-Dibromoethane (EDB)	ND	0.50	0							
1,2-Dichloroethane	ND	0.50	0							
Ethanol	ND	300	u							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	D							
Methyl tert-butyl ether	ND	0.50	19							
Toluene	ND	0.50	n							
Xylenes (total)	ND	0.50	17							
Surrogate: Dibromofluoromethane	2.24		"	2.50		90	75-130			·····
Surrogate: 1,2-Dichloroethane-d4	2.18		"	2.50		87	60-145			
Surrogate: Toluene-d8	2.29		"	2.50		92	70-130			
Surrogate: 4-Bromofluorobenzene	2.27		"	2.50		91	60-120			
Laboratory Control Sample (6K0601	0-BS1)			Prepared 6	& Analyze	d: 11/06/0	)6			
tert-Amyl methyl ether	10.5	0.50	ug/l	10.0		105	65-135			
Benzene	10.6	0.50	"	10.0		106	70-125			
tert-Butyl alcohol	206	5.0	ŧı	200		103	60-135			
Di-isopropyl ether	10.0	0.50	ŧI	10.0		100	70-130			
1,2-Dibromoethane (EDB)	11.3	0.50	н	10.0		113	80-125			
1,2-Dichloroethane	10.3	0.50	u u	10.0		103	75-125			
Ethanol	136	300	11	200		68	15-150			
Ethyl tert-butyl ether	9.89	0.50	lt .	10.0		99	65-130			
Ethylbenzene	11.7	0.50	It	10.0		117	70-130			
Methyl tert-butyl ether	9.91	0.50	11	10.0		99	50-140			
Toluene	11.0	0.50	u	10.0		110	70-120			
Xylenes (total)	35.1	0.50	u	30.0		117	80-125			
Surrogate: Dibromofluoromethane	2.28		'n	2.50	***************************************	91	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.20		u	2.50		88	60-145			
Surrogate: Toluene-d8	2.32		11	2.50		93	70-130			
Surrogate: 4-Bromofluorobenzene	2.22		n	2.50		89	60-120			





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Matrix Spike (6K06010-MSD1)   Source: MPK0052-03   Prepared & Analyzed: 11/06/05	RPD Limit N		RPD	%REC Limits	%REC	Source Result	Spike Level	Units	Reporting Limit	Result	Analyte
Matrix Spike (6K06010-MS1)         Source: MPK0052-03         Prepared & Analyzed: 11/06/06           tert-Amyl methyl ether         529         25         ug/l         500         ND         106         65-135           Benzene         534         25         "         500         6.0         106         70-125           Lett-Butyl alcohol         10300         250         "         10000         ND         103         60-135           Di-isopropyl ether         492         25         "         500         ND         98         70-130           1,2-Dichloroethane         514         25         "         500         ND         103         75-125           Ethanol         9120         15000         "         10000         ND         91         15-150           Ethyl tert-butyl ether         490         25         "         500         ND         98         65-130           Ethyl tert-butyl ether         383         25         "         500         ND         118         70-130           Ethyl tert-butyl ether         3830         25         "         500         ND         112         70-120           Sturgate: Dibornogluoromethane         2.27											<u> </u>
Bernzene   529   25   ug/l   500   ND   106   65-135				<u> </u>						EPA 8260B	Batch 6K06010 - EPA 5030B P/T / E
Benzene					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				PK0052-03		
Self-zelfe					106		500	_		529	tert-Amyl methyl ether
Di-isopropy  ether					106	6.0			25		Benzene
1,2-Dibromochtane (EDB)   570   25				60-135	103	ND	10000	D	250	10300	tert-Butyl alcohol
I_2-Dichloroethane				70-130	98	ND	500	O	25	492	Di-isopropyl ether
Ethanol				80-125	114	ND	500	0	25	570	1,2-Dibromoethane (EDB)
Ethyl tert-butyl ether				75-125	103	ND	500	0	25	514	1,2-Dichloroethane
Ethylbenzene   588   25				15-150	91	ND	10000	U	15000	9120	Ethanol
Methyl tert-butyl ether         3830         25         " 500         3400         86         50-140           Toluene         558         25         " 500         ND         112         70-120           Xylenes (total)         1780         25         " 1500         ND         119         80-125           Surrogate: Dibromofluoromethane         2.27         " 2.50         91         75-130           Surrogate: Toluene-d8         2.29         " 2.50         92         70-130           Surrogate: 4-Bromofluorobenzene         2.28         " 2.50         91         60-120           Matrix Spike Dup (6K06010-MSD1)         Source: MPK052-03         Prepared & Analyzed: 11/06/05         11/06/05           tert-Amyl methyl ether         531         25         ug/l         500         ND         106         66-5-135         0.4           Benzene         545         25         " 500         ND         106         65-135         0.4           tert-Butyl alcohol         10500         250         " 10000         ND         105         60-135         2           1-2-Dichloroethane (EDB)         578         25         " 500         ND         106         70-130         2				65-130	98	ND	500	U	25	490	Ethyl tert-butyl ether
Toluene         558         25         "         500         ND         112         70-120           Xylenes (total)         1780         25         "         1500         ND         119         80-125           Surrogate: Dibromofluoromethane         2.27         "         2.50         91         75-130           Surrogate: J.2-Dichloroethane-d4         2.15         "         2.50         92         70-130           Surrogate: 4-Bromofluorobenzene         2.28         "         2.50         92         70-130           Matrix Spike Dup (6K06010-MSD1)         Source: MPK0052-03         Prepared & Analyzed: 11/06/05         106/05         100           Matrix Spike Dup (6K06010-MSD1)         Source: MPK0052-03         Prepared & Analyzed: 11/06/05         106/05         100 <t< td=""><td></td><td></td><td></td><td>70-130</td><td>118</td><td>ND</td><td>500</td><td>ø</td><td>25</td><td>588</td><td>Ethylbenzene</td></t<>				70-130	118	ND	500	ø	25	588	Ethylbenzene
Xylenes (total)   1780   25				50-140	86	3400	500	U	25	3830	Methyl tert-butyl ether
Surrogate: Dibromofluoromethane         2.27         "         2.50         91         75-130           Surrogate: 1,2-Dichloroethane-d4         2.15         "         2.50         86         60-145           Surrogate: Toluene-d8         2.29         "         2.50         92         70-130           Surrogate: 4-Bromofluorobenzene         2.28         "         2.50         91         60-120           Matrix Spike Dup (6K06010-MSD1)         Source: MPK0052-03         Prepared & Analyzed: 11/06/05         11/06/05         108         70-125         2           Benzene         545         25         ug/l         500         ND         106         65-135         0.4           Benzene         545         25         "         500         6.0         108         70-125         2           tert-Butyl alcohol         10500         250         "         10000         ND         105         66-135         0.4           benzene         500         25         "         500         ND         100         70-130         2           1;-2-Dichloroethane (EDB)         578         25         "         500         ND         104         75-125         2           Etha				70-120	112	ND	500	II.	25	558	Toluene
Surrogate: Dibromolylaromeliane   2.27				80-125	119	ND	1500	1)	25	1780	Xylenes (total)
Surrogate: 7,2bichlorodellane-44   2.15   2.50   92   70-130   Surrogate: 4-Bromofluorobenzene   2.28   " 2.50   91   60-120   Matrix Spike Dup (6K06010-MSD1)   Source: MPK0052-03   Prepared & Analyzed: 11/06/06   tert-Amyl methyl ether   531   25   ug/l 500   ND 106   65-135   0.4   Benzene   545   25   " 500   6.0   108   70-125   2   tert-Butyl alcohol   10500   250   " 10000   ND 105   60-135   2   Di-isopropyl ether   500   25   " 500   ND 100   70-130   2   1,2-Dibromoethane (EDB)   578   25   " 500   ND 116   80-125   1   1,2-Dichloroethane   522   25   " 500   ND 104   75-125   2   Ethanol   5940   15000   " 10000   ND 59   15-150   42   Ethyl tert-butyl ether   490   25   " 500   ND 121   70-130   3   Methyl tert-butyl ether   3890   25   " 500   ND 114   70-120   2   Xylenes (total)   1800   25   " 500   ND 110   80-125   1   Surrogate: Dibromofluoromethane   2.29   " 2.50   88   60-145   Surrogate: 1,2-Dichloroethane-d4   2.19   " 2.50   2.50   88   50-145   Surrogate: 1,2-Dichloroethane-d4   2.19   " 2.50   30-125   30-125   30-125   30-125				75-130	91		2,50	"		2.27	Surrogate: Dibromofluoromethane
Surrogate: 1014ene-do				60-145	86		2.50	"		2.15	Surrogate: 1,2-Dichloroethane-d4
Matrix Spike Dup (6K06010-MSD1)         Source: MPK0052-03         Prepared & Analyzed: 11/06/06           tert-Amyl methyl ether         531         25         ug/l         500         ND         106         65-135         0.4           Benzene         545         25         "         500         6.0         108         70-125         2           tert-Butyl alcohol         10500         250         "         10000         ND         105         60-135         2           Di-isopropyl ether         500         25         "         500         ND         100         70-130         2           1,2-Dibromoethane (EDB)         578         25         "         500         ND         116         80-125         1           1,2-Dichloroethane         522         25         "         500         ND         104         75-125         2           Ethanol         5940         15000         "         10000         ND         59         15-150         42           Ethyl tert-butyl ether         490         25         "         500         ND         98         65-130         0           Ethylbenzene         603         25         "         500				70-130	92		2.50	"		2.29	Surrogate: Toluene-d8
tert-Amyl methyl ether 531 25 ug/l 500 ND 106 65-135 0.4  Benzene 545 25 " 500 6.0 108 70-125 2  tert-Butyl alcohol 10500 250 " 10000 ND 105 60-135 2  Di-isopropyl ether 500 25 " 500 ND 100 70-130 2  1,2-Dibromoethane (EDB) 578 25 " 500 ND 116 80-125 1  1,2-Dichloroethane 522 25 " 500 ND 104 75-125 2  Ethanol 5940 15000 " 10000 ND 59 15-150 42  Ethyl tert-butyl ether 490 25 " 500 ND 120 70-130 3  Methyl tert-butyl ether 3890 25 " 500 ND 121 70-130 3  Methyl tert-butyl ether 3890 25 " 500 ND 114 70-120 2  Xylenes (total) 1800 25 " 5500 ND 114 70-120 2  Xyrogate: 1,2-Dichloroethane 2.29 " 2.50 ND 120 80-125 1  Surrogate: 1,2-Dichloroethane-d4 2.19 " 2.50 88 60-145				60-120	91		2.50	"		2.28	Surrogate: 4-Bromofluorobenzene
Benzene         545         25         " 500         6.0         108         70-125         2           tert-Butyl alcohol         10500         250         " 10000         ND 105         60-135         2           Di-isopropyl ether         500         25         " 500         ND 100         70-130         2           1,2-Dibromoethane (EDB)         578         25         " 500         ND 116         80-125         1           1,2-Dichloroethane         522         25         " 500         ND 104         75-125         2           Ethanol         5940         15000         " 10000         ND 59         15-150         42           Ethyl tert-butyl ether         490         25         " 500         ND 98         65-130         0           Ethyl tert-butyl ether         3890         25         " 500         ND 121         70-130         3           Methyl tert-butyl ether         3890         25         " 500         ND 114         70-120         2           Toluene         570         25         " 500         ND 114         70-120         2           Xylenes (total)         1800         25         " 1500         ND 120         80-125         1				)6	:d: 11/06/0	k Analyze	Prepared &		PK0052-03	Source: M	Matrix Spike Dup (6K06010-MSD1)
tert-Butyl alcohol 10500 250 " 10000 ND 105 60-135 2 Di-isopropyl ether 500 25 " 500 ND 100 70-130 2 1,2-Dibromoethane (EDB) 578 25 " 500 ND 116 80-125 1 1,2-Dichloroethane 522 25 " 500 ND 104 75-125 2 Ethanol 5940 15000 " 10000 ND 59 15-150 42 Ethyl tert-butyl ether 490 25 " 500 ND 121 70-130 3 Ethyl tert-butyl ether 603 25 " 500 ND 121 70-130 3 Methyl tert-butyl ether 3890 25 " 500 ND 121 70-130 3 Methyl tert-butyl ether 570 25 " 500 ND 114 70-120 2 Xylenes (total) 1800 25 " 500 ND 120 80-125 1  Surrogate: Dibromofluoromethane 2.29 " 2.50 ND ND 120 80-125 1  Surrogate: 1,2-Dichloroethane-d4 2.19 " 2.50 88 60-145	25	25	0.4	65-135	106	ND	500	ug/l	25	531	tert-Amyl methyl ether
Di-isopropyl ether         500         25         " 500         ND 100         70-130         2           1,2-Dibromoethane (EDB)         578         25         " 500         ND 116         80-125         1           1,2-Dichloroethane         522         25         " 500         ND 104         75-125         2           Ethanol         5940         15000         " 10000         ND 59         15-150         42           Ethyl tert-butyl ether         490         25         " 500         ND 98         65-130         0           Ethylbenzene         603         25         " 500         ND 121         70-130         3           Methyl tert-butyl ether         3890         25         " 500         ND 121         70-130         3           Methyl tert-butyl ether         3890         25         " 500         ND 114         70-120         2           Toluene         570         25         " 500         ND 114         70-120         2           Xylenes (total)         1800         25         " 1500         ND 120         80-125         1           Surrogate: Dibromofluoromethane         2.29         " 2.50         88         60-145	15	15	2	70-125	108	6.0	500	łı	25	545	Benzene
1,2-Dibromoethane (EDB)       578       25       " 500       ND 116       80-125       1         1,2-Dichloroethane       522       25       " 500       ND 104       75-125       2         Ethanol       5940       15000       " 10000       ND 59       15-150       42         Ethyl tert-butyl ether       490       25       " 500       ND 98       65-130       0         Ethylbenzene       603       25       " 500       ND 121       70-130       3         Methyl tert-butyl ether       3890       25       " 500       3400       98       50-140       2         Toluene       570       25       " 500       ND 114       70-120       2         Xylenes (total)       1800       25       " 1500       ND 120       80-125       1         Surrogate: Dibromofluoromethane       2.29       " 2.50       92       75-130         Surrogate: 1,2-Dichloroethane-d4       2.19       " 2.50       88       60-145	35	35	2	60-135	105	ND	10000	tı	250	10500	tert-Butyl alcohol
1,2-Dichloroethane         522         25         " 500         ND 104         75-125         2           Ethanol         5940         15000         " 10000         ND 59         15-150         42           Ethyl tert-butyl ether         490         25         " 500         ND 98         65-130         0           Ethylbenzene         603         25         " 500         ND 121         70-130         3           Methyl tert-butyl ether         3890         25         " 500         3400         98         50-140         2           Toluene         570         25         " 500         ND 114         70-120         2           Xylenes (total)         1800         25         " 1500         ND 120         80-125         1           Surrogate: Dibromofluoromethane         2.29         " 2.50         92         75-130           Surrogate: 1,2-Dichloroethane-d4         2.19         " 2.50         88         60-145	35	35	2	70-130	100	ND	500	11	25	500	Di-isopropyl ether
Ethanol         5940         15000         " 10000         ND 59         15-150         42           Ethyl tert-butyl ether         490         25 " 500 ND 98 65-130 0           Ethylbenzene         603         25 " 500 ND 121 70-130 3           Methyl tert-butyl ether         3890 25 " 500 3400 98 50-140 2           Toluene         570 25 " 500 ND 114 70-120 2           Xylenes (total)         1800 25 " 1500 ND 120 80-125 1           Surrogate: Dibromofluoromethane         2.29 " 2.50 92 75-130           Surrogate: 1,2-Dichloroethane-d4         2.19 " 2.50 88 60-145	15	15	1	80-125	116	ND	500	11	25	578	1,2-Dibromoethane (EDB)
Ethyl tert-butyl ether       490       25       "       500       ND       98       65-130       0         Ethylbenzene       603       25       "       500       ND       121       70-130       3         Methyl tert-butyl ether       3890       25       "       500       3400       98       50-140       2         Toluene       570       25       "       500       ND       114       70-120       2         Xylenes (total)       1800       25       "       1500       ND       120       80-125       1         Surrogate: Dibromofluoromethane       2.29       "       2.50       92       75-130         Surrogate: 1,2-Dichloroethane-d4       2.19       "       2.50       88       60-145	10	10	2	75-125	104	ND	500	71	25	522	1,2-Dichloroethane
Ethylbenzene 603 25 " 500 ND 121 70-130 3  Methyl tert-butyl ether 3890 25 " 500 ND 121 70-130 2  Toluene 570 25 " 500 ND 114 70-120 2  Xylenes (total) 1800 25 " 1500 ND 120 80-125 1  Surrogate: Dibromofluoromethane 2.29 " 2.50 " 92 75-130  Surrogate: 1,2-Dichloroethane-d4 2.19 " 2.50 88 60-145	35	35	42	15-150	59	ND	10000	H	15000	5940	Ethanol
Methyl tert-butyl ether       3890       25       "       500       3400       98       50-140       2         Toluene       570       25       "       500       ND       114       70-120       2         Xylenes (total)       1800       25       "       1500       ND       120       80-125       1         Surrogate: Dibromofluoromethane       2.29       "       2.50       92       75-130         Surrogate: 1,2-Dichloroethane-d4       2.19       "       2.50       88       60-145	35	35	0	65-130	98	ND	500	н	25	490	Ethyl tert-butyl ether
Toluene         570         25         "         500         ND         114         70-120         2           Xylenes (total)         1800         25         "         1500         ND         120         80-125         1           Surrogate: Dibromofluoromethane         2.29         "         2.50         92         75-130           Surrogate: 1,2-Dichloroethane-d4         2.19         "         2.50         88         60-145	15	15	3	70-130	121	ND	500	u	25	603	Ethylbenzene
Xylenes (total)         1800         25         "         1500         ND         120         80-125         I           Surrogate: Dibromofluoromethane         2.29         "         2.50         92         75-130           Surrogate: 1,2-Dichloroethane-d4         2.19         "         2.50         88         60-145	25	25	2	50-140	98	3400	500	н	25	3890	Methyl tert-butyl ether
Surrogate: Dibromofluoromethane         2.29         "         2.50         92         75-130           Surrogate: 1,2-Dichloroethane-d4         2.19         "         2.50         88         60-145	15	15	2	70-120	114	ND	500	п	25	570	Toluene
Surrogate: 1,2-Dichloroethane-d4         2.19         "         2.50         88         60-145	15	15	1	80-125	120	ND	1500	11	25	1800	Xylenes (total)
				75-130	92		2.50	Ħ		2.29	Surrogate: Dibromofluoromethane
Surrogata: Taluana_d8 2.33 " 7.50 03 70_130				60-145	88		2.50	"		2.19	Surrogate: 1,2-Dichloroethane-d4
distrigute, 10 tuene-tu				70-130	93		2.50	"		2.33	Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene         2.22         "         2.50         89         60-120				60-120	89		2.50	"		2.22	Surrogate: 4-Bromofluorobenzene





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6K08020 - EPA 5030B P/T	/ EPA 8260B									
Blank (6K08020-BLK1)				Prepared of	& Analyze	ed: 11/08/0	06			
tert-Amyl methyl ether	ND	0,50	ug/l							
Benzene	ND	0.50	н							
tert-Butyl alcohol	ИD	20	н							
Di-isopropyl ether	ND	0.50	*1							
1,2-Dibromoethane (EDB)	ND	0.50	ŧ1							
1,2-Dichloroethane	ND	0.50	ij							
Ethanol	ND	300	U							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	H							
Methyl tert-butyl ether	ND	0.50	ít							
Toluene	ND	0.50	и							
Xylenes (total)	ND	0.50	н							
Surrogate: Dibromofluoromethane	2.39	***************************************	п	2.50		96	75-130	***************************************		
Surrogate: 1,2-Dichloroethane-d4	2.61		"	2.50		104	60-145			
Surrogate: Toluene-d8	2.43		n	2.50		97	70-130			
Surrogate: 4-Bromofluorobenzene	2.47		11	2.50		99	60-120			
Laboratory Control Sample (6K0802	0-BS1)			Prepared &	& Analyze	:d: 11/0 <mark>8/</mark> 0	)6			
tert-Amyl methyl ether	11,1	0.50	ug/l	10.0		111	65-135			
Benzene	10.8	0.50	Ħ	10.0		108	70-125			
tert-Butyl alcohol	207	20	Ħ	200		104	60-135			
Di-isopropyl ether	11.4	0.50	Ħ	10.0		114	70-130			
1,2-Dibromoethane (EDB)	10.7	0.50	Ħ	10.0		107	80-125			
1,2-Dichloroethane	11.1	0.50	Ħ	10.0		111	75-125			
Ethanol	255	300	Ħ	200		128	15-150			
Ethyl tert-butyl ether	11.1	0.50	ŧI	10.0		111	65-130			
Ethylbenzene	11.0	0.50	11	10.0		110	70-130			
Methyl tert-butyl ether	10.7	0.50	n	10.0		107	50-140			
Toluene	10.4	0.50	U	10.0		104	70-120			
Xylenes (total)	33.5	0.50	σ	30.0		112	80-125			
Surrogate: Dibromofluoromethane	2.44		,,	2.50		98	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.55		"	2.50		102	60-145			
Surrogate: Toluene-d8	2.46		"	2.50		98	70-130			
Surrogate: 4-Bromofluorobenzene	2.60		"	2.50		104	60-120			





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		Liiiii	Oillis	<u> </u>	Reaut	76142.0	Limits		271111	110103
Batch 6K08020 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (6K08020-MS1)	Source: M	PK0052-02		Prepared	& Analyze	ed: 11/08/	06			
tert-Amyl methyl ether	10.9	0.50	ug/l	10.0	ND	109	65-135			
Benzene	10.9	0.50	Ü	10.0	ND	109	70-125			
tert-Butyl alcohol	217	20	0	200	ND	108	60-135			
Di-isopropyl ether	10.3	0.50	P	10.0	ND	103	70-130			
1,2-Dibromoethane (EDB)	11.3	0.50	н	10.0	ND	113	80-125			
1,2-Dichloroethane	10.6	0.50	н	10.0	ND	106	75-125			
Ethanol	232	300	"	200	ND	116	15-150			
Ethyl tert-butyl ether	10.5	0.50	ţ1	10.0	ND	105	65-130			
Ethylbenzene	10.9	0.50	ķi	10.0	ND	109	70-130			
Methyl tert-butyl ether	10.6	0.50	Ħ	10.0	ND	106	50-140			
Toluene	11.1	0.50	n	10.0	ND	111	70-120			
Xylenes (total)	34.8	0.50	11	30.0	ND	116	80-125			
Surrogate: Dibromofluoromethane	2.52		п	2.50		101	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.31		"	2.50		92	60-145			
Surrogate: Toluene-d8	2.49		n	2.50		100	70-130			
Surrogate: 4-Bromofluorobenzene	2.45		tr	2.50		98	60-120			
Matrix Spike Dup (6K08020-MSD1)	Source: M	PK0052-02		Prepared	& Analyze	d: 11/08/	06			
tert-Amyl methyl ether	9.52	0.50	ug/l	10.0	ND	95	65-135	14	25	
Benzene	9.44	0.50	11	10.0	ND	94	70-125	14	15	
tert-Butyl alcohol	194	20	11	200	ND	97	60-135	11	35	
Di-isopropyl ether	8.82	0.50	ţ1	10.0	ND	88	70-130	15	35	
1,2-Dibromoethane (EDB)	9.61	0.50	n n	10.0	ND	96	80-125	16	15	
1,2-Dichloroethane	9.13	0.50	o	10.0	ND	91	75-125	15	10	
Ethanol	210	300	0	200	ND	105	15-150	10	35	
Ethyl tert-butyl ether	8.97	0.50	0	10.0	ND	90	65-130	16	35	
Ethylbenzene	9.46	0.50	Ħ	10.0	ND	95	70-130	14	15	
Methyl tert-butyl ether	9.17	0.50	Ħ	10.0	ND	92	50-140	14	25	
Toluene	9.51	0.50	H	10.0	ND	95	70-120	15	15	
Xylenes (total)	30.1	0.50	If	30.0	ND	100	80-125	14	15	
Surrogate: Dibromofluoromethane	2.53		11	2.50		101	75-130	h	***************************************	
Surrogate: 1,2-Dichloroethane-d4	2.35		**	2.50		94	60-145			
Surrogate: Toluene-d8	2.45		"	2.50		98	70-130			
Surrogate: 4-Bromofluorobenzene	2.44		"	2.50		98	60-120			





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6K09007 - EPA 5030B P/T	/ EPA 8260B		<u> </u>							
Blank (6K09007-BLK1)				Prepared a	& Analyze	d: 11/09/0	06			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	U							
tert-Butyl alcohol	ND	20	tr.							
Di-isopropyl ether	ND	0.50	II.							
1,2-Dibromoethane (EDB)	ND	0.50	ls .							
1,2-Dichloroethane	ND	0.50	H							
Ethanol	ND	300	lt.							
Ethyl tert-butyl ether	ND	0.50	н							
Ethylbenzene	ND	0.50	u							
Methyl tert-butyl ether	ND	0.50								
Toluene	ND	0.50								
Xylenes (total)	ND	0.50	и							
Surrogate: Dibromofluoromethane	2.64		"	2.50		106	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.88		"	2.50		115	60-145			
Surrogate: Toluene-d8	2.39		"	2.50		96	70-130			
Surrogate: 4-Bromofluorobenzene	2.25	•	"	2.50		90	60-120			
Laboratory Control Sample (6K0900°	7-BS1)		•	Prepared o	& Analyze	d: 11/09/0	06			
tert-Amyl methyl ether	8.41	0.50	ug/i	10.0		84	65-135			
Benzene	9.18	0.50	lt .	10.0		92	70-125			
tert-Butyl alcohol	182	20	H	200		91	60-135			
Di-isopropyl ether	10.1	0.50	It	10.0		101	70-130			
1,2-Dibromoethane (EDB)	8.97	0.50	"	10.0		90	80-125			
1,2-Dichloroethane	10.1	0.50	11	10.0		101	75-125			
Ethanol	226	300	*1	200		113	15-150			
Ethyl tert-butyl ether	9.22	0.50	†I	~10.0		92	65-130			
Ethylbenzene	9.39	0.50	0	10.0		94	70-130			
Methyl tert-butyl ether	9.38	0.50	q	10.0		94	50-140			
Гoluene	9.00	0.50	u	10.0		90	70-120			
Xylenes (total)	29.3	0.50	0	30.0		98	80-125		٠	
Surrogate: Dibromofluoromethane	2.60	***************************************	n	2.50		104	75-130		2002	
Surrogate: 1,2-Dichloroethane-d4	2.75		"	2.50		110	60-145		1000	
Surrogate: Toluene-d8	2.56		"	2.50		102	70-130		-	
Surrogate: 4-Bromofluorobenzene	2.49		"	2.50		100	60-120			





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6K09007 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (6K09007-MS1)	Source: M	(PJ1081-03		Prepared	& Analyze	ed: 11/09/	06			
tert-Amyl methyl ether	95.9	5.0	ug/l	100	ND	96	65-135			
Benzene	98.0	5.0	ti	100	ND	98	70-125			
tert-Butyl alcohol	1910	200	0	2000	ND	96	60-135			
Di-isopropyl ether	114	5.0	U	100	ND	114	70-130			
1,2-Dibromoethane (EDB)	100	5.0	D.	100	ND	100	80-125			
1,2-Dichloroethane	118	5.0	B	100	ND	118	75-125			
Ethanol	2620	3000	12	2000	ND	131	15-150			
Ethyl tert-butyl ether	105	5.0	I+	100	ND	105	65-130			
Ethylbenzene	101	5.0	)#	100	ND	101	70-130			
Methyl tert-butyl ether	114	5.0	н	100	ND	114	50-140			
Toluene	97.7	5.0	ti	100	ND	98	70-120			
Xylenes (total)	315	5.0	U	300	ND	105	80-125			
Surrogate: Dibromofluoromethane	2,71		"	2.50		108	75-130			*****
Surrogate: 1,2-Dichloroethane-d4	3.18		"	2.50		127	60-145			
Surrogate: Toluene-d8	2.60		"	2.50		104	70-130			
Surrogate: 4-Bromofluorobenzene	2.63		"	2.50		105	60-120			
Matrix Spike Dup (6K09007-MSD1)	Source: M	PJ1081-03		Prepared of	& Analyze	)6				
tert-Amyl methyl ether	97.7	5.0	ug/l	100	ND	98	65-135	2	25	
Benzene	101	5.0	н	100	ND	101	70-125	3	15	
tert-Butyl alcohol	1890	200	н	2000	ND	94	60-135	1	35	
Di-isopropyl ether	116	5.0	ч	100	ND	116	70-130	2	35	
1,2-Dibromoethane (EDB)	102	5.0	ų	100	ND	102	80-125	2	15	
1,2-Dichloroethane	118	5.0	H	100	ND	118	75-125	0	10	
Ethanol	2560	3000	n	2000	ND	128	15-150	2	35	
Ethyl tert-butyl ether	108	5.0	"	100	ND	108	65-130	3	35	
Ethylbenzene	99.1	5.0	n	100	ND	99	70-130	2	15	
Methyl tert-butyl ether	116	5.0	*1	100	ND	116	50-140	2	25	
Toluene	99.4	5.0	19	100	ND	99	70-120	2	15	
Xylenes (total)	306	5.0	Ħ	300	ND	102	80-125	3	15	
Surrogate: Dibromofluoromethane	2.75		n	2.50		110	75-130			
Surrogate: 1,2-Dichloroethane-d4	3.05		"	2.50		122	60-145			
Surrogate: Toluene-d8	2.60		"	2.50		104	70-130			
Surrogate: 4-Bromofluorobenzene	2.52		n	2.50		101	60-120			





Project: ARCO #6113, Livermore, CA

Project Number: G0C54-Project Manager: Jay Johnson MPK0052 Reported: 11/15/06 14:21

#### Notes and Definitions

RB RPD exceeded method control limit; % recoveries within limits. PV Hydrocarbon result partly due to individ. peak(s) in quant. range IC Calib. verif. is within method limits but outside contract limits Surrogate recov. unquantifiable; coeluting organics in sample HY DET Analyte DETECTED ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified NR Sample results reported on a dry weight basis dry RPD Relative Percent Difference



#### Chain of Custody Record

3	WAS NO		ct Nam			ARCO 6113											On	n-site Time: 0345	Temp:	6015		
•		BP BU	U/AR R	legio	n/Enf	fos Segment:	BP	> Ame	icas	> W	est > Retail > (	CA > A	lam	eda>	6113		1	f-site Time: 13 50	Temp:	70 15		
																,	Sk	y Conditions:	clear			
		State	or Lead	d Re		ory Agency:												eteorological Events:	NIA			
					Ì	Requested Duc D	ate (	mm/dd	/yy):		STD	TA	I			_	W	ind Speed:	Direction	n:		
	ame: TestAmerica					BP/AR Facility No.	~~~~~	6113									<b>→</b>	nsultant/Contractor:	Stratus Environmen			
	ss: 885 Jarvis Drive					BP/AR Facility Ad	dress:		785	Stan	ley Blvd., Liver	more,	CA				Ad		on Park Drive, Sui	te 550		
	n Hill, CA 95937					Site Lat/Long:											_ _		rk, CA 95682			
	M: Lisa Race					California Global ID #: <b>TO606   00        </b>											nsultant/Contractor Project					
_	ax: 408-782-8156 408-782-630	8 (fax)				Enfos Project No.:											onsultant/Contractor PM:	Jay John				
	PM Contact: Paul Supple					Provision or RCOP	' (circ	le one)			Provision						Te	te/Fax: (530) 676-60	000 / (530) 676-60	105	_	
Addre	ss: 2010 Crow Canyon Place, Suit	150				Phase/WBS:		04-Mon	itorin	g								port Type & QC Level:		with EDF		
	San Ramon, CA		···.			Sub Phase/Task:		03-Anal										maîl EDD To: <u>cjewitt(</u>				
	ax: 925-275-3506					Cost Element:		01-Cont	ractor	~							in	voice to: Atlantic Richfiel	d Co.			
Lab B	ottle Order No:			M	atrix		1 1			P	reservative		,			Re	queste	d Analysis	8260	~ A; c		
							မွ					,				윩	- 1	8260	0,000	- 1766	_	
			1		<u>"</u>		Containers									BTEX/Oxy*/TPHg		3 4 -	Sample Point			
Item	Sample Description	Time	Date	ا ــا	Ĭ,	Laboratory No.	lg.	P P						12	H	\$	ہ ا ہ	0xx's 0xy's 0B 2-0cA thane	Comments: Ox			
No.	• •	=	^	툸	[F		ğ	8	4	ļ "		l e		8	5	81	2   26	3 2 8 2 3	MtBE, TAME, I			BA,
			2006	K	Water/Liquid Air	MPKOOSZ		Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HINO3	HCI	Methanol		BTEX 8021	втехлен	121	EPA 8260	50x) 50x) 60B	cthanol, 1,2-	·DCA & E	DB	
			7.	Š	<u> </u>		-	2	上五	<u> </u>		≥	<u> </u>	8	Δ	m	(II) (II		<u> </u>			
	mW-3	0915	1031		ХЦ	- 6}	3				У/							XXXX				
	H- WM_	0707	5		ζ[ ]	OZ	6			i	/	·						121/16151				
	MW - 6	1150	3		71	63	3				5							1)))//5				
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Samp	ler's Name:	2 4	·(u+i	ka			R	elinquish	ed By	/Aff	illation		-		Date	Tin	ie	Accepted By / 2	tifiliation	Date	7	Time
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Shipn	nent Tracking No:																				╫	
Specia	d Instructions:	Please	cc resul	ts to	bpvalle	cy@secor.com	~ <del></del>													<u> </u>		
V DAY																						
***	પ્ડeals In Place Yes No	<u> </u>		Ten	np Blar	nk Yes 🗸 No					Cooler Temp	erature	on F	lecei	pt 4	1ºr/	ژ)	Trit	Blank Yes V	No		

Trip Blank Yes V No

# TEST AMERICA SAMPLE RECEIPT LOG

REC. BY (PRINT) WORKORDER:	ACO 6113 Nipuo052		DATE REC'D AT LA TIME REC'D AT LA DATE LOGGED IN:	B: _	11/11/66 11/11/66 11/11/66	<u> </u>		For Regulatory Purposes? DRINKING WATER YES / NO				
CIRCLE THE APPROPE	RIATE RESPONSE	LAB SAMPLE#	CLIENT ID		CONTAINER DESCRIPTION		рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)		
Custody Seal(s)	Present / Absent	01	MW-3	1	14-3	nch		4	11/110/			
	Intact / Broken*	02	1 4	1	104-6	MUL						
2. Chain-of-Custody	Present / Absent* .	60	6	ı	osa-3	<i>\( \cdot \)</i>	7	- (				
3. Traffic Reports or		р¥	1		. 1	• /						
	Present /Absent	05	<u> </u>									
4. Airbill:	Airbill / Sticker	م) ه	1 10		\				1			
	Present / Absent	07	4 13.					· \	)			
	107596083	08	VW-I			J	$_{-}L_{1}$	ما	ل ا			
	Present Absent				. 'I				7			
7. Sample IDs:	Listed / Not Listed							·,				
	on-Ghain-of-Custody											
T TE	intact / Broken* /		•									
	Leaking*											
9. Does information on ch	• • • • •	•										
traffic reports and sam						4						
agree?	Yes / No*		•									
10. Sample received within												
hold time?	Nes/I No*									1		
<ol> <li>11. Adequate sample volume</li> </ol>					/_			·				
received?	(Yes / No*		1.7									
12. Proper preservatives use			Oplain	,								
13. Trip Blank / Temp Blank I			1,61,	_4								
(clrcle which, if yes)	Yes / No*			/								
14. Read Temp:	3·h	•										
Corrected Temp:	hill							<b></b> .				
Is corrected temp 4 +/-2°									'			
(Acceptance range for samples requ				<u>_</u>								
**Exception (if any): METALS	S / DFFONICE									_		
or Problem COC					400-0-00-00-00-000	0						

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

Page \_\_\_\_ of ↓\_\_

#### APPENDIX B

#### GEOTRACKER UPLOAD CONFIRMATION

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