



Atlantic Richfield Company  
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March 17, 2006

Re: ARCO Service Station # 2111  
1156 Davis Street  
San Leandro, California  
First Quarter 2006 Groundwater Monitoring Report  
ACEH Case # 744

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

Submitted by:

Paul Supple  
Environmental Business Manager



March 17, 2006

Mr. Don Hwang  
Alameda County Environmental Health (ACEH)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

**Re: First Quarter 2006 Groundwater Monitoring Report  
ARCO Service Station #2111  
1156 Davis Street  
San Leandro, California  
ACEH Case #744**

Dear Mr. Hwang:

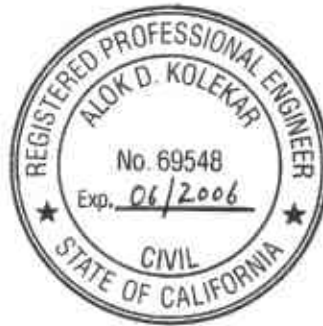
On behalf of Atlantic Richfield Company, a BP-affiliated company, URS Corporation (URS) is submitting the *First Quarter 2006 Groundwater Monitoring Report* for ARCO Service Station #2111, located at 1156 Davis Street, San Leandro, California.

If you have any questions regarding this submission, please call (510) 874-3152.

Sincerely,

**URS CORPORATION**

Alok D. Kolekar, P.E.  
Project Manager



Enclosure: First Quarter 2006 Groundwater Monitoring Report

cc: Paul Supple, Atlantic Richfield Company (RM), electronic copy uploaded to ENFOS  
Rob Miller, Broadbent & Associates, Inc., electronic copy uploaded to ENFOS

**R E P O R T**

**FIRST QUARTER 2006  
GROUNDWATER MONITORING  
REPORT**

**ARCO SERVICE STATION #2111  
1156 DAVIS STREET  
SAN LEANDRO, CALIFORNIA**

*Prepared for*  
RM

March 17, 2006

**URS**

URS Corporation  
1333 Broadway, Suite 800  
Oakland, California 94612

Date: March 17, 2006  
Quarter: 1Q 06

### FIRST QUARTER 2006 GROUNDWATER MONITORING REPORT

Facility No.: 2111 Address: 1156 Davis Street, San Leandro, California  
RM Environmental Business Manager: Paul Supple  
Consulting Co./Contact Person: URS Corporation / Alok D. Kolekar  
Primary Agency: Alameda County Environmental Health (ACEH)  
ACEH Case #: 744

#### WORK PERFORMED THIS QUARTER (First – 2006):

1. Performed the first quarter 2006 groundwater monitoring event on January 18, 2006.
2. Checked MW-2 monthly for free product (FP).
3. Prepared and submitted this First Quarter 2006 Groundwater Monitoring Report.

#### WORK PROPOSED FOR NEXT QUARTER (Second – 2006):

1. Perform the second quarter 2006 groundwater monitoring event.
2. Check MW-2 monthly for FP.
3. Prepare and submit the Second Quarter 2006 Groundwater Monitoring Report.

#### SITE SUMMARY:

Current Phase of Project: Groundwater monitoring/sampling/interim remediation; DPE construction in progress.

Frequency of Groundwater Sampling: Quarterly: Wells MW-1 through MW-5 and MW-8  
Annually (3Q): MW-6

Frequency of Groundwater Monitoring: Quarterly

Is FP Present On-Site: Sheen (MW-2)

FP recovered this quarter: 0 gallons

Cumulative FP Recovered: 1.44 gallons (Table 4)

Current Remediation Techniques: Bailing FP as needed from MW-2

Approximate Depth to Groundwater: 11.80 (MW-6) to 14.70 (MW-1) feet

Groundwater Gradient (direction): North and West

Groundwater Gradient (magnitude): 0.01 feet per foot

#### DISCUSSION:

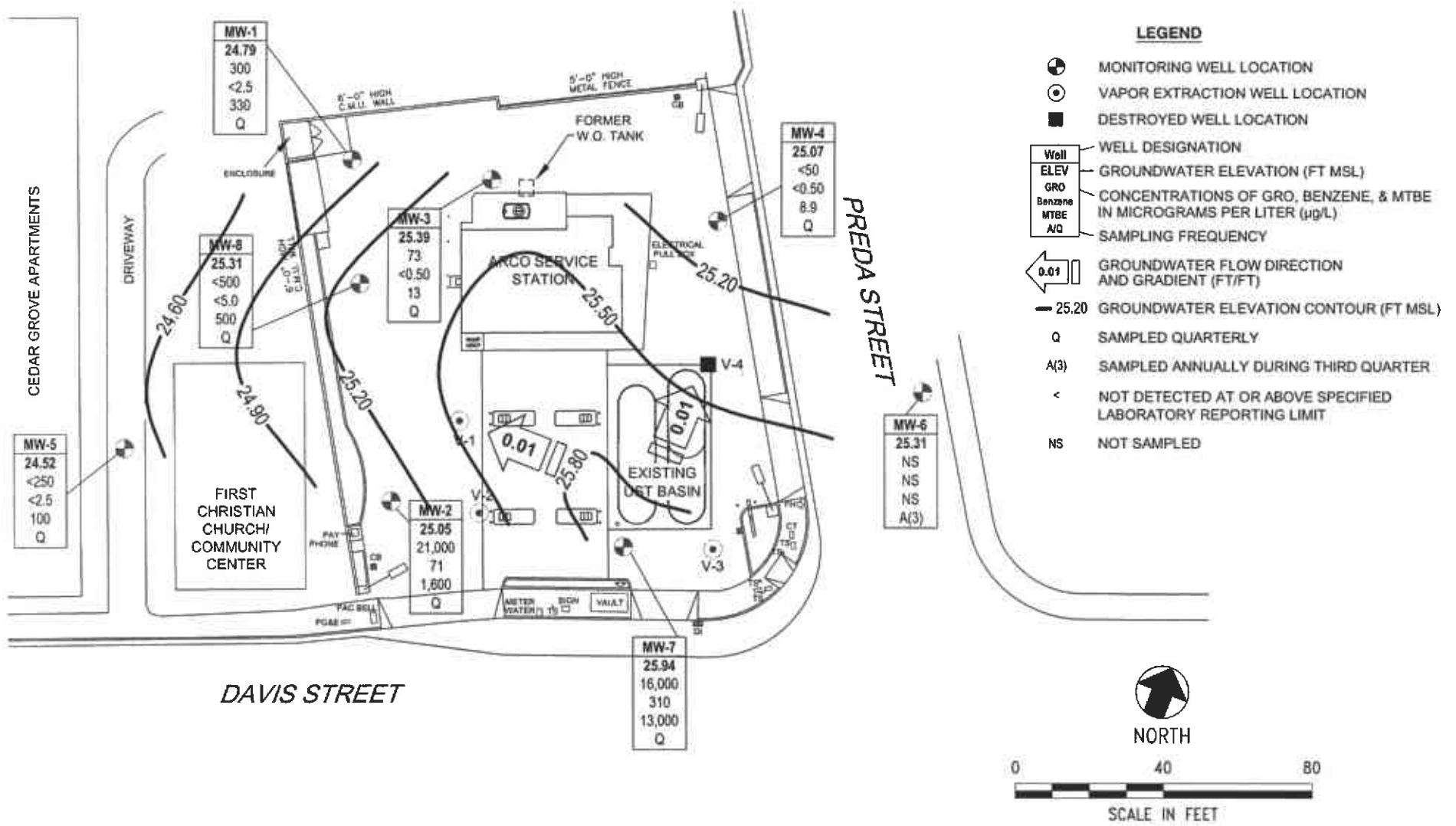
Gasoline range organics were detected at or above the laboratory reporting limit in four of the seven wells sampled this quarter at concentrations ranging from 73 micrograms per liter  $\mu\text{g/L}$  (MW-3) to 21,000  $\mu\text{g/L}$  (MW-2). Benzene was detected at or above the laboratory reporting limit in two wells at concentrations of 71  $\mu\text{g/L}$  (MW-2) and 310  $\mu\text{g/L}$  (MW-7). Ethylbenzene was detected at or above the laboratory reporting limit in one well at a concentration of 470  $\mu\text{g/L}$  (MW-2). Xylenes were detected at or above the laboratory reporting limit in two wells at concentrations of 110  $\mu\text{g/L}$  (MW-7) and 1,400  $\mu\text{g/L}$  (MW-2). Methyl tert-butyl ether was detected at or above the laboratory reporting limit in seven wells at concentrations ranging from 8.9  $\mu\text{g/L}$  (MW-4) to 13,000  $\mu\text{g/L}$  (MW-7). Tert-Amyl methyl ether was detected at or above the laboratory reporting limit in four wells at

concentrations ranging from 1.3 µg/L (MW-3) to 9.7 µg/L (MW-1). Tert-Butyl alcohol was detected at or above the laboratory reporting limit in two wells at concentrations of 2,200 µg/L (MW-5) and 15,000 µg/L (MW-7). No other fuel components were detected at or above the laboratory reporting limits in any of the wells sampled this quarter.

The DPE system construction is currently in its final stages of completion. URS will begin system start-up procedure upon completion of the system construction.

**ATTACHMENTS:**

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – January 18, 2006
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Fuel Additives Analytical Data
- Table 3 – Groundwater Gradient Data
- Table 4 – Approximate Cumulative Floating Product Recovered
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment C – Historical Groundwater Data
- Attachment D – Error Check Reports and EDF/GeoWell Submittal Confirmations



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

	Project No. 38487555 ARCO Service Station #2111 1156 Davis Street San Leandro, California	<b>GROUNDWATER ELEVATION CONTOUR          AND ANALYTICAL SUMMARY MAP</b> First Quarter 2006 (January 18, 2006)	FIGURE <b>1</b>

Table 1

## Groundwater Elevation and Analytical Data

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

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-1	6/26/2000	--		39.6	12.50	26.00	16.46	23.14	--	--	--	--	--	--	--	--
	7/20/2000	--		39.6	12.50	26.00	16.89	22.71	360	110	<0.5	<0.5	2.7	2,100	--	--
	9/19/2000	--		39.6	12.50	26.00	17.62	21.98	290	76	<0.5	<0.5	2.3	1,500	--	--
	12/21/2000	--		39.6	12.50	26.00	17.39	22.21	257	64	2.89	1.31	4.57	1,080/1,060	--	--
	3/13/2001	--		39.6	12.50	26.00	15.70	23.90	<500	52.5	<5.0	<5.0	<5.0	1,430/1,370	--	--
	9/18/2001	--		39.6	12.50	26.00	18.24	21.36	<500	64	7.3	<5.0	52	810/1,100	--	--
	12/28/2001	--		39.6	12.50	26.00	15.95	23.65	<500	<5.0	<5.0	5	22	1,200/1,100	--	--
	3/14/2002	--		39.6	12.50	26.00	16.01	23.59	<50	<0.5	<0.5	<0.5	<0.5	34/40	--	--
	4/23/2002	--		39.6	12.50	26.00	15.43	24.17	<50	<0.5	<0.5	<0.5	<0.5	30	--	--
	7/17/2002	NP		39.6	12.50	26.00	17.50	22.10	<50	1.2	<0.50	<0.50	<0.50	29	6.9	6.9
	10/9/2002	--	c	39.6	12.50	26.00	18.27	21.33	240	4.9	<1.0	4.1	7.0	290	6.5	6.5
	1/13/2003	--	c	39.6	12.50	26.00	15.37	24.23	760	34	11	17	56	300	6.8	6.8
	04/07/03	--		39.6	12.50	26.00	16.61	22.99	<50	<0.50	<0.50	<0.50	<0.50	22	6.8	6.8
	7/9/2003	--		39.6	12.50	26.00	17.27	22.33	<2,500	<25	<25	<25	<25	690	6.7	6.7
	02/05/2004	NP	m	39.49	12.50	26.00	16.28	23.21	2,800	31	<25	<25	<25	1,100	0.9	6.5
	04/05/2004	NP		39.49	12.50	26.00	16.25	23.24	5,800	46	<25	<25	<25	1,700	1.0	--
	07/13/2004	NP		39.49	12.50	26.00	17.57	21.92	<1,000	<10	<10	<10	<10	730	0.5	6.6
	11/04/2004	NP		39.49	12.50	26.00	17.78	21.71	560	<5.0	<5.0	<5.0	<5.0	380	0.8	6.5
	01/20/2005	NP		39.49	12.50	26.00	15.50	23.99	670	<5.0	<5.0	<5.0	<5.0	570	0.6	6.0
	04/11/2005	NP		39.49	12.50	26.00	14.82	24.67	<2,500	<25	<25	<25	25	1,100	0.9	6.9
	08/01/2005	NP		39.49	12.50	26.00	16.77	22.72	2,200	33	<10	110	<10	1,400	1.27	7.3
	10/21/2005	NP		39.49	12.50	26.00	17.71	21.78	<2,500	<25	<25	<25	<25	970	1.17	6.6
	01/18/2006	NP	n	39.49	12.50	26.00	14.70	24.79	300	<2.5	<2.5	<2.5	<2.5	330	1.07	6.6
MW-2	6/26/2000	--	a	37.99	12.00	26.00	14.60	23.39	--	--	--	--	--	--	--	--
	7/20/2000	--		37.99	12.00	26.00	15.14	22.85	95,000	2,300	18,000	2,500	19,000	13,000	--	--
	9/19/2000	--		37.99	12.00	26.00	15.95	22.04	63,000	1,200	6,300	2,000	14,000	19,000	--	--
	12/21/00	--	b	37.99	12.00	26.00	--	--	5,010	360	189	213	626	54,300/89,200	--	--
	12/21/2000	--		37.99	12.00	26.00	15.60	22.39	45,900	--	2,130	1,160	9,460	22,400/24,700	--	--
	3/13/2001	--	b	37.99	12.00	26.00	--	--	<20,000	525	466	408	1,460	91,700/76,000	--	--
	3/13/2001	--		37.99	12.00	26.00	13.77	23.90	3,650	98.1	<5.0	<5.0	6.42	3,590/3,260	--	--
	9/18/2001	--	a	37.99	12.00	26.00	16.86	21.13	--	--	--	--	--	--	--	--
	12/28/2001	--		37.99	12.00	26.00	14.28	23.71	31,000	1,500	3,800	1,300	4,800	9,300/8,800	--	--

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Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-2	3/14/2002	--		37.99	12.00	26.00	14.15	23.84	1,800	25	43	43	270	990/960	--	--
	4/23/2002	--		37.99	12.00	26.00	13.60	24.39	9,000	220	110	470	2,500	8,500	--	--
	7/17/2002	NP	a, c	37.99	12.00	26.00	15.75	--	74,000	280	290	820	10,000	19,000/0.4	6.8	6.8
	10/9/02	NP	g	37.99	12.00	26.00	16.69	--	--	--	--	--	--	--	--	--
	1/13/03	--	g, h	37.99	12.00	26.00	13.59	24.61	--	--	--	--	--	--	--	--
	04/07/03	--	g, h	37.99	12.00	26.00	14.70	23.69	--	--	--	--	--	--	--	--
	07/09/03	--	g, h	37.99	12.00	26.00	15.48	22.57	--	--	--	--	--	--	--	--
	02/05/2004	NP	g,m	37.86	12.00	26.00	14.43	23.53	--	--	--	--	--	--	--	--
	04/05/2004	NP		37.86	12.00	26.00	14.35	23.51	2,300	33	<5.0	<5.0	200	750	0.6	--
	07/13/2004	NP		37.86	12.00	26.00	15.79	22.07	59,000	380	<50	2,100	7,900	5,800	0.3	6.4
	08/31/2004	--		37.86	12.00	26.00	15.89	21.97	--	--	--	--	--	--	--	--
	11/04/2004	--	g, h	37.86	12.00	26.00	15.92	21.94	--	--	--	--	--	--	--	--
	01/20/2005	NP	o	37.86	12.00	26.00	13.71	24.15	30,000	450	<50	1,300	3,300	7,000	0.7	6.2
	04/11/2005	NP		37.86	12.00	26.00	12.70	25.16	11,000	170	<50	580	630	2,700	0.9	6.8
	08/01/2005	NP		37.86	12.00	26.00	14.89	22.97	24,000	170	<50	1,100	2,700	2,700	0.64	6.9
	10/21/2005	--	a	37.86	12.00	26.00	16.05	21.81	--	--	--	--	--	--	--	--
	01/18/2006	NP	a	37.86	12.00	26.00	12.81	25.05	21,000	71	<50	470	1,400	1,600	1.18	6.6
MW-3	6/26/2000	--		39.32	12.00	26.00	15.96	23.36	--	--	--	--	--	--	--	NA
	7/20/2000	--		39.32	12.00	26.00	16.42	22.90	<50	<0.5	<0.5	<0.5	<1.0	130	--	--
	9/19/2000	--		39.32	12.00	26.00	17.18	22.14	190	17	<0.5	1.4	2.4	160	--	--
	12/21/2000	--		39.32	12.00	26.00	16.97	22.35	187	17.8	<0.5	2.47	2.5	143/125	--	--
	3/13/2001	--		39.32	12.00	26.00	15.17	24.15	72.4	2.83	<0.5	<0.5	<0.5	126/122	--	--
	9/18/2001	--		39.32	12.00	26.00	17.81	21.51	140	6.4	<0.5	3.5	1.6	110/75	--	--
	12/28/2001	--		39.32	12.00	26.00	15.44	23.88	130	5.9	<0.5	0.99	0.55	90/63	--	--
	3/14/2002	--		39.32	12.00	26.00	15.50	23.82	<50	<0.5	<0.5	<0.5	<0.5	100/88	--	--
	4/23/2002	--		39.32	12.00	26.00	14.96	24.36	<50	<0.5	<0.5	<0.5	<0.5	77	--	--
	7/17/2002	NP		39.32	12.00	26.00	17.09	22.23	<50	<0.50	<0.50	<0.50	<0.50	47	7.2	7.2
	10/9/2002	NP		39.32	12.00	26.00	17.87	21.45	<50	<0.50	<0.50	<0.50	<0.50	26/29	7.2	7.2
	1/13/2003	NP	i	39.32	12.00	26.00	14.78	24.54	<50	<0.50	<0.50	<0.50	<0.50	59	6.8	6.8
	04/07/03	NP		39.32	12.00	26.00	16.15	23.17	88	<0.50	<0.50	<0.50	<0.50	75	7.0	7.0
	7/9/2003	--		39.32	12.00	26.00	16.79	22.53	100	<0.50	<0.50	<0.50	<0.50	52	6.5	6.5
	02/05/2004	NP	m	39.19	11.90	26.00	15.66	23.53	240	<0.50	<0.50	<0.50	<0.50	37	0.5	--
	04/05/2004	NP		39.19	11.90	26.00	15.78	23.41	140	<0.50	<0.50	<0.50	0.60	53	1.0	6.6
	07/13/2004	NP		39.19	11.90	26.00	17.20	21.99	120	<0.50	<0.50	<0.50	<0.50	35	0.8	6.7



Table 1

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

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-3	11/04/2004	NP		39.19	11.90	26.00	17.32	21.87	160	<0.50	<0.50	<0.50	<0.50	25	0.8	6.5
	01/20/2005	NP		39.19	11.90	26.00	15.07	24.12	160	<0.50	<0.50	<0.50	<0.50	27	0.6	6.1
	04/11/2005	NP		39.19	11.90	26.00	14.24	24.95	<50	<0.50	<0.50	<0.50	<0.50	21	0.6	6.1
	08/01/2005	NP		39.19	11.90	26.00	16.29	22.90	<50	<0.50	<0.50	<0.50	<0.50	23	1.04	7.2
	10/21/2005	NP		39.19	11.90	26.00	17.41	21.78	88	<0.50	<0.50	<0.50	<0.50	19	1.9	6.6
	01/18/2006	NP		39.19	11.90	26.00	13.80	25.39	73	<0.50	<0.50	<0.50	<0.50	13	1.13	6.6
MW-4	6/26/2000	--		38.1	10.00	24.00	14.59	23.51	--	--	--	--	--	--	--	NA
	7/20/2000	--		38.1	10.00	24.00	15.04	23.06	97	7.9	<0.5	<0.5	1.1	51	--	--
	9/19/2000	--		38.1	10.00	24.00	15.83	22.27	110	7	<0.5	<0.5	<1.0	60	--	--
	12/21/2000	--		38.1	10.00	24.00	15.59	22.51	120	5.6	<0.5	1.72	<0.5	46.3/48.6	--	--
	3/13/2001	--		38.1	10.00	24.00	13.73	24.37	76	0.796	<0.5	<0.5	<0.5	53.7/50	--	--
	9/18/2001	--		38.1	10.00	24.00	16.50	21.60	<50	<0.5	<0.5	<0.5	<0.5	25/26	--	--
	12/28/2001	--		38.1	10.00	24.00	14.03	24.07	<50	<0.5	<0.5	<0.5	<0.5	15/11	--	--
	3/14/2002	--		38.1	10.00	24.00	14.10	24.00	<50	<0.5	<0.5	<0.5	<0.5	31/28	--	--
	4/23/2002	--		38.1	10.00	24.00	13.57	24.53	<50	2.8	<0.5	<0.5	<0.5	42	--	--
	7/17/2002	NP		38.1	10.00	24.00	15.76	22.34	<50	<0.50	<0.50	<0.50	<0.50	16	7.1	7.1
	10/9/2002	NP		38.1	10.00	24.00	16.59	21.51	<50	2.2	<0.50	<0.50	<0.50	20/23	7.1	7.1
	1/13/2003	NP	d	38.1	10.00	24.00	13.43	24.67	52	<0.50	1.6	<0.50	<0.50	22	6.6	6.6
	04/07/03	NP		38.1	10.00	24.00	14.74	23.36	65	<0.50	<0.50	<0.50	<0.50	24	6.6	6.6
	7/9/2003	--		38.1	10.00	24.00	15.44	22.66	120	<0.50	<0.50	<0.50	<0.50	34	6.6	6.6
	02/05/2004	NP	m	37.99	10.00	24.00	14.39	23.60	120	<0.50	<0.50	<0.50	<0.50	22	0.5	6.6
	04/05/2004	NP		37.99	10.00	24.00	14.37	23.62	110	<0.50	<0.50	<0.50	<0.50	27	1.1	6.5
	07/13/2004	NP		37.99	10.00	24.00	15.96	22.03	77	<0.50	<0.50	<0.50	<0.50	27	0.6	6.6
	11/04/2004	NP		37.99	10.00	24.00	16.02	21.97	<50	<0.50	<0.50	<0.50	<0.50	19	1.2	6.7
	01/20/2005	NP		37.99	10.00	24.00	13.72	24.27	65	<0.50	<0.50	<0.50	<0.50	18	0.6	6.1
	04/11/2005	NP		37.99	10.00	24.00	12.80	25.19	51	<0.50	<0.50	<0.50	<0.50	14	0.7	6.2
08/01/2005	NP		37.99	10.00	24.00	14.88	23.11	<50	<0.50	<0.50	<0.50	<0.50	18	1.46	7.3	
10/21/2005	NP		37.99	10.00	24.00	15.01	22.98	<50	<0.50	<0.50	<0.50	<0.50	15	1.24	7.6	
01/18/2006	NP		37.99	10.00	24.00	12.92	25.07	<50	<0.50	<0.50	<0.50	<0.50	8.9	0.77	6.5	
MW-5	6/26/2000	--		37.21	9.50	23.50	14.27	22.94	--	--	--	--	--	--	--	--
	7/20/2000	--		37.21	9.50	23.50	14.69	22.52	55	<0.5	<0.5	<0.5	<1.0	14,000	--	--
	9/19/2000	--		37.21	9.50	23.50	15.36	21.85	54	<0.5	<0.5	<0.5	<1.0	13,000	--	--
	12/21/2000	--		37.21	9.50	23.50	15.15	22.06	72.9	2.51	<0.5	<0.5	0.961	19,200/21,200	--	--

Table 1

## Groundwater Elevation and Analytical Data

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

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-5	3/13/2001	--		37.21	9.50	23.50	13.50	23.71	<500	<5	<5	<5	<5	15,900/20,000	--	--
	9/18/2001	--		37.21	9.50	23.50	15.94	21.27	<10,000	<100	<100	<100	<1,000	22,000/20,000	--	--
	12/28/2001	--		37.21	9.50	23.50	13.45	23.76	<10,000	<100	<100	<100	<100	10,000/10,000	--	--
	3/14/2002	--		37.21	9.50	23.50	13.82	23.39	<5,000	<50	<50	<50	<50	7,100/7,700	--	--
	4/23/2002	--		37.21	9.50	23.50	13.25	23.96	<5,000	<50	<50	<50	<50	8,900	--	--
	7/17/2002	NP	d	37.21	9.50	23.50	15.27	21.94	7,900	<50	<50	<50	<50	13,000	7.5	7.5
	10/9/2002	NP	e	37.21	9.50	23.50	16.02	21.19	2,400	<20	<20	<20	<20	7,300/7,500	6.7	6.7
	1/13/2003	NP	e, k, j	37.21	9.50	23.50	13.20	24.01	6,400	<50	<50	<50	<50	8,900	6.8	6.8
	04/07/03	NP		37.21	9.50	23.50	14.42	22.79	<10,000	<100	<100	<100	<100	3,700	6.8	6.8
	7/9/2003	--		37.21	9.50	23.50	15.01	22.20	11,000	<50	<50	<50	<50	6,500	6.9	6.9
	02/05/2004	NP	m	37.12	9.00	23.50	14.10	23.02	8,100	<50	<50	<50	<50	7,900	1.5	--
	04/05/2004	NP		37.12	9.00	23.50	14.14	22.98	4,000	<25	<25	<25	<25	2,000	1.0	6.6
	07/13/2004	NP		37.12	9.00	23.50	15.37	21.75	<5,000	<50	<50	<50	<50	4,000	0.8	6.7
	11/04/2004	NP		37.12	9.00	23.50	15.53	21.59	7,400	<50	<50	<50	<50	6,300	3.5	6.7
	01/20/2005	NP	n	37.12	9.00	23.50	13.51	23.61	6,500	<50	<50	<50	<50	6,900	0.7	6.5
	04/11/2005	NP		37.12	9.00	23.50	12.75	24.37	<5,000	<50	<50	<50	<50	2,600	0.5	7.0
	08/01/2005	NP		37.12	9.00	23.50	14.59	22.53	110	<1.0	<1.0	<1.0	<1.0	130	1.36	7.5
	10/21/2005	NP		37.12	9.00	23.50	15.57	21.55	<250	<2.5	<2.5	<2.5	<2.5	86	1.53	6.8
	01/18/2006	NP		37.12	9.00	23.50	12.60	24.52	<250	<2.5	<2.5	<2.5	<2.5	100	1.2	6.7
MW-6	6/26/2000	--		37.11	10.00	25.00	13.46	23.65	--	--	--	--	--	--	--	NA
	7/20/2000	--		37.11	10.00	25.00	13.94	23.17	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--
	9/19/2000	--		37.11	10.00	25.00	14.41	22.70	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--
	12/21/2000	--		37.11	10.00	25.00	14.53	22.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/13/2001	--		37.11	10.00	25.00	12.67	24.44	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	9/18/2001	--		37.11	10.00	25.00	15.42	21.69	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0	--	--
	12/28/2001	--		37.11	10.00	25.00	12.96	24.15	<50	<0.5	<0.5	<0.5	<0.5	12/<0.5	--	--
	3/14/2002	--		37.11	10.00	25.00	12.98	24.13	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	4/23/2002	--		37.11	10.00	25.00	12.44	24.67	<50	<0.5	<0.5	<0.5	<0.5	3.1	--	--
	7/17/2002	NP		37.11	10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.3	7.3
	10/9/2002	NP		37.11	10.00	25.00	15.51	21.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.1	7.1
	1/13/2003	NP		37.11	10.00	25.00	12.27	24.84	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.8	6.8
	04/07/03	NP		37.11	10.00	25.00	13.61	23.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.6	6.6

Table 1

## Groundwater Elevation and Analytical Data

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

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-6	7/9/2003	--		37.11	10.00	25.00	14.34	22.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	7	7.0
	02/05/2004	--	m	37.11	10.00	25.00	13.38	23.73	--	--	--	--	--	--	--	--
	04/05/2004	--		37.11	10.00	25.00	13.31	23.80	--	--	--	--	--	--	--	--
	07/13/2004	NP		37.11	10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	6.8
	11/04/2004	--		37.11	10.00	25.00	14.95	22.16	--	--	--	--	--	--	--	--
	01/20/2005	--		37.11	10.00	25.00	12.57	24.54	--	--	--	--	--	--	--	--
	04/11/2005	--		37.11	10.00	25.00	12.05	25.06	--	--	--	--	--	--	--	--
	08/01/2005	NP		37.11	10.00	25.00	13.79	23.32	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	7.6
	10/21/2005	--		37.11	10.00	25.00	14.60	22.51	--	--	--	--	--	--	--	--
	01/18/2006	--		37.11	10.00	25.00	11.80	25.31	--	--	--	--	--	--	--	--
MW-7	6/26/2000	--		38.68	12.00	27.00	14.34	24.34	--	--	--	--	--	--	--	--
	7/20/2000	--		38.68	12.00	27.00	15.26	23.42	14,000	5.4	<0.5	2.8	5.9	71,000	--	--
	9/19/2000	--		38.68	12.00	27.00	15.70	22.98	8,400	420	38	470	220	5,600	--	--
	12/21/2000	--		38.68	12.00	27.00	16.02	22.66	--	--	--	--	--	--	--	--
	3/13/2001	--		38.68	12.00	27.00	14.18	24.50	<2,000	154	63	46.3	127	175,000/160,000	--	--
	9/18/2001	--		38.68	12.00	27.00	17.02	21.66	<100,000	1,900	<1,000	<1,000	2,800	190,000/370,000	--	--
	12/28/2001	--		38.68	12.00	27.00	14.81	23.87	<20,000	<200	<200	<200	<200	84,000/72,000	--	--
	3/14/2002	--		38.68	12.00	27.00	14.60	24.08	<50,000	<500	<500	<500	<500	85,000/85,000	--	--
	4/23/2002	--		38.68	12.00	27.00	13.94	24.74	<20,000	530	200	220	800	67,000	--	--
	7/17/2002	NP	d	38.68	12.00	27.00	16.27	22.41	26,000	720	<250	<250	860	120,000	6.9	6.9
	10/9/2002	NP	d	38.68	12.00	27.00	17.16	21.52	110,000	1,500	4,400	820	5,400	97,000/120,000	6.8	6.8
	1/13/2003	NP	f	38.68	12.00	27.00	13.82	24.86	<50,000	<500	<500	<500	2,200	33,000	6.6	6.6
	04/07/03	NP		38.68	12.00	27.00	14.52	24.16	<2,500	30	<25	<25	<25	710	7.0	7.0
	7/9/2003	--		38.68	12.00	27.00	15.97	22.71	66,000	<500	<500	<500	<500	36,000	6.7	6.7
	02/05/2004	NP	m	38.54	12.00	27.00	14.75	23.79	55,000	300	<250	<250	<250	34,000	1.0	6.7
	04/05/2004	NP		38.54	12.00	27.00	14.63	23.91	62,000	520	<250	<250	380	37,000	1.0	6.7
	07/13/2004	NP		38.54	12.00	27.00	16.31	22.23	<100,000	<1,000	<1,000	<1,000	<1,000	56,000	0.7	6.7
	11/04/2004	--		38.54	12.00	27.00	16.46	22.08	70,000	<500	<500	<500	<500	71,000	2.0	6.6
	01/20/2005	NP	n	38.54	12.00	27.00	14.05	24.49	34,000	<250	<250	<250	<250	36,000	0.6	6.3
	04/11/2005	NP		38.54	12.00	27.00	12.55	25.99	<2,500	46	<25	<25	<25	1,200	0.7	6.8
	08/01/2005	NP		38.54	12.00	27.00	15.11	23.43	<25,000	<250	<250	<250	<250	4,800	1.78	7.3

**Table 1**

**Groundwater Elevation and Analytical Data**

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

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-7	10/21/2005	NP	p	38.54	12.00	27.00	15.65	22.89	14,000	350	<100	<100	110	12,000	1.41	6.6
	01/18/2006	NP		38.54	12.00	27.00	12.60	25.94	16,000	310	<100	<100	110	13,000	0.87	6.7
MW-8	02/05/2004	P	m	38.91	18.00	38.00	15.61	23.30	3,600	<25	<25	<25	<25	1,900	6.9	6.8
	04/05/2004	P		38.91	18.00	38.00	15.64	23.27	1,900	<10	<10	<10	<10	1,200	3.2	6.7
	07/13/2004	P		38.91	18.00	38.00	17.22	21.69	<1,000	<10	<10	<10	<10	760	1.6	6.7
	11/04/2004	P		38.91	18.00	38.00	17.19	21.72	960	<5.0	<5.0	<5.0	<5.0	820	1.8	6.7
	01/20/2005	P		38.91	18.00	38.00	15.25	23.66	<2,500	<25	<25	<25	<25	1,400	1.5	6.4
	04/11/2005	P		38.91	18.00	38.00	14.17	24.74	700	<5.0	<5.0	<5.0	<5.0	610	1.1	7.1
	08/01/2005	P		38.91	18.00	38.00	16.10	22.81	<1,000	<10	<10	<10	<10	900	2.58	7.7
	10/21/2005	P	n	38.91	18.00	38.00	17.18	21.73	530	<5.0	<5.0	<5.0	<5.0	490	1.4	6.7
	01/18/2006	P		38.91	18.00	38.00	13.60	25.31	<500	<5.0	<5.0	<5.0	<5.0	500	2.28	6.6

**Table 1**

**Groundwater Elevation and Analytical Data**

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

**ABBREVIATIONS:**

– = Not analyzed/applicable/measured/available  
< = Not detected at or above specified laboratory reporting limit  
BTEX = Benzene, toluene, ethylbenzene, and total xylenes  
DO = Dissolved oxygen  
DTW = Depth to water in ft bgs  
ft bgs = feet below ground surface  
ft MSL = feet above mean sea level  
GRO = Gasoline range organics  
GWE = Groundwater elevation 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 elevation in ft MSL  
TPH-g = Total petroleum hydrocarbons as gasoline  
µg/L = Micrograms per liter

**FOOTNOTES:**

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

**NOTES:**

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

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

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

Values for DO and pH were obtained through field measurements.

The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

Table 2

## Fuel Additives Analytical Data

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

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Footnotes/ Comments
MW-1	4/7/2003	<100	<20	1,100	<0.50	<0.50	<0.50	--	--	
	7/9/2003	<5,000	<1,000	690	<25	<25	<25	--	--	
	02/05/2004	<5,000	<1,000	1,100	<25	<25	32	<25	<25	
	04/05/2004	<5,000	<1,000	1,700	<25	<25	38	<25	<25	a
	07/13/2004	<2,000	780	730	<10	<10	19	<10	<10	a
	11/04/2004	<1,000	<200	380	<5.0	<5.0	12	<5.0	<5.0	
	01/20/2005	<1,000	<200	570	<5.0	<5.0	17	<5.0	<5.0	a
	04/11/2005	<5,000	<1,000	1,100	<25	<25	34	<25	<25	
	08/01/2005	<2,000	<400	1,400	<10	<10	40	<10	<10	
	10/21/2005	<5,000	<1,000	970	<25	<25	<25	<25	<25	
	01/18/2006	<1,500	<100	330	<2.5	<2.5	9.7	<2.5	<2.5	
MW-2	04/05/2004	<1,000	<200	750	<5.0	<5.0	<5.0	<5.0	<5.0	
	07/13/2004	<10,000	12,000	5,800	<50	<50	<50	<50	<50	a
	01/20/2005	<10,000	<2,000	7,000	<50	<50	<50	<50	<50	a
	04/11/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	
	08/01/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	
	01/18/2006	<30,000	<2,000	1,600	<50	<50	<50	<50	<50	
MW-3	4/7/2003	<100	<20	75	<0.50	<0.50	6.5	--	--	
	7/9/2003	<100	<20	52	<0.50	<0.50	4.2	--	--	
	02/05/2004	<100	<20	37	<0.50	<0.50	3.1	<0.50	<0.50	
	04/05/2004	<100	<20	53	<0.50	<0.50	3.7	<0.50	<0.50	a
	07/13/2004	<100	44	35	<0.50	<0.50	3.2	<0.50	<0.50	
	11/04/2004	<100	<20	25	<0.50	<0.50	2.2	<0.50	<0.50	
	01/20/2005	<100	<20	27	<0.50	<0.50	2.6	<0.50	<0.50	
	04/11/2005	<100	<20	21	<0.50	<0.50	2.0	<0.50	<0.50	
	08/01/2005	<100	<20	23	<0.50	<0.50	1.9	<0.50	<0.50	
	10/21/2005	<100	<20	19	<0.50	<0.50	2.0	<0.50	<0.50	
	01/18/2006	<300	<20	13	<0.50	<0.50	1.3	<0.50	<0.50	
MW-4	4/7/2003	<100	<20	24	<0.50	<0.50	7.3	--	--	
	7/9/2003	<100	<20	34	<0.50	<0.50	9.8	--	--	
	02/05/2004	<100	<20	22	<0.50	<0.50	6.2	<0.50	<0.50	
	04/05/2004	<100	<20	27	<0.50	<0.50	7.2	<0.50	<0.50	a

**Table 2**

**Fuel Additives Analytical Data**  
 ARCO Service Station #2111  
 1156 Davis St, San Leandro, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Footnotes/ Comments
MW-4	07/13/2004	<100	26	27	<0.50	<0.50	7.4	<0.50	<0.50	a
	11/04/2004	<100	<20	19	<0.50	<0.50	5.1	<0.50	<0.50	
	01/20/2005	<100	<20	18	<0.50	<0.50	5.2	<0.50	<0.50	
	04/11/2005	<100	<20	14	<0.50	<0.50	4.0	<0.50	<0.50	
	08/01/2005	<100	<20	18	<0.50	<0.50	3.9	<0.50	<0.50	
	10/21/2005	<100	<20	15	<0.50	<0.50	4.6	<0.50	<0.50	
	01/18/2006	<300	<20	8.9	<0.50	<0.50	2.5	<0.50	<0.50	
MW-5	4/7/2003	<20,000	<4,000	3,700	<100	<100	<100	--	--	
	7/9/2003	<10,000	<2,000	6,500	<50	<50	<50	--	--	
	02/05/2004	<10,000	<2,000	7,900	<50	<50	<50	<50	<50	a
	04/05/2004	<5,000	<1,000	2,000	<25	<25	<25	<25	<25	a
	07/13/2004	<10,000	3,200	4,000	<50	<50	<50	<50	<50	a
	11/04/2004	<10,000	<2,000	6,300	<50	<50	<50	<50	<50	
	01/20/2005	<10,000	<2,000	6,900	<50	<50	<50	<50	<50	a
	04/11/2005	<10,000	3,600	2,600	<50	<50	<50	<50	<50	
	08/01/2005	<200	1,600	130	<1.0	<1.0	<1.0	<1.0	<1.0	
	10/21/2005	<500	1,400	86	<2.5	<2.5	<2.5	<2.5	<2.5	
01/18/2006	<1,500	2,200	100	<2.5	<2.5	<2.5	<2.5	<2.5		
MW-6	4/7/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
	7/9/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
	07/13/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
	08/01/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-7	4/7/2003	<5,000	<1,000	710	<25	<25	<25	--	--	
	7/9/2003	<100,000	<20,000	36,000	<500	<500	<500	--	--	
	02/05/2004	<50,000	<10,000	34,000	<250	<250	<250	<250	<250	
	04/05/2004	<50,000	<10,000	37,000	<250	<250	<250	<250	<250	
	07/13/2004	<200,000	<40,000	56,000	<1,000	<1,000	1,300	<1,000	<1,000	
	11/04/2004	<100,000	<20,000	71,000	<500	<500	<500	<500	<500	
	01/20/2005	<50,000	<10,000	36,000	<250	<250	<250	<250	<250	a
	04/11/2005	<5,000	<1,000	1,200	<25	<25	<25	<25	<25	
08/01/2005	<50,000	<10,000	4,800	<250	<250	<250	<250	<250		
10/21/2005	<20,000	24,000	12,000	<100	<100	<100	<100	<100		

**Table 2**

**Fuel Additives Analytical Data**

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

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Footnotes/ Comments
MW-7	01/18/2006	<60,000	15,000	13,000	<100	<100	<100	<100	<100	
MW-8	02/05/2004	<5,000	<1,000	1,900	<25	<25	<25	<25	<25	
	04/05/2004	<2,000	<400	1,200	<10	<10	12	<10	<10	a
	07/13/2004	<2,000	770	760	<10	<10	<10	<10	<10	a
	11/04/2004	<1,000	<200	820	<5.0	<5.0	9.6	<5.0	<5.0	
	01/20/2005	<5,000	<1,000	1,400	<25	<25	<25	<25	<25	a
	04/11/2005	<1,000	<200	610	<5.0	<5.0	8.1	<5.0	<5.0	
	08/01/2005	<2,000	<400	900	<10	<10	<10	<10	<10	
	10/21/2005	<1,000	<200	490	<5.0	<5.0	<5.0	<5.0	<5.0	
	01/18/2006	<3,000	<200	500	<5.0	<5.0	5.2	<5.0	<5.0	



## Table 2

### Fuel Additives Analytical Data ARCO Service Station #2111 1156 Davis St, San Leandro, CA

#### ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = Micrograms per Liter

#### FOOTNOTES:

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

#### NOTES:

All volatile organic compounds analyzed using EPA Method 8260B.

The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

**Table 3**

**Groundwater Gradient Data**  
ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
7/20/2000	West-Northwest	0.006
9/19/2000	West-Northwest	0.004
12/21/2000	West-Northwest	0.004
3/13/2001	West-Northwest	0.005
5/30/2001	West-Northwest	0.004
9/18/2001	West-Northwest	0.003
12/28/2001	West-Northwest	0.003
3/14/2002	West	0.004
4/23/2002	West	0.006
7/17/2002	West	0.003
10/9/2002	West	0.002
1/13/2003	Southwest	0.0043
4/7/2003	West-Northwest	0.009 to 0.011
7/9/2003	West-Northwest	0.004
10/1/2003	West	0.002
2/5/2004	West	0.004
4/5/2004	West-Southwest	0.004
7/13/2004	West-Southwest	0.003
11/4/2004	West	0.003
1/20/2005	West	0.009
4/11/2005	North to West	0.009 to 0.01
8/1/2005	West to Northwest	0.006 to 0.004
10/21/2005	West	0.008
1/18/2006	North and West	0.01

Note: The data within this table collected prior to July 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

Table 4

**Approximate Cumulative Floating Product Recovered**  
 ARCO Service Station #2111  
 1156 Davis Street, San Leandro California

Well Designation	Product Recovery Field Date	Floating Product Thickness (feet)	Floating Product Recovered (gallons)
MW-2	06/28/99	0.45	0.30
MW-2	06/30/99	0.015	0.01
MW-2	07/07/99	0.06	0.04
MW-2	07/23/99	0.008	0.01
MW-2	08/25/99	0.02	0.01
MW-2	09/21/99	0.01	0.01
MW-2	11/10/99	ND	0.00
MW-2	02/09/00	ND	0.00
MW-2	04/23/02	ND	0.00
MW-2	07/17/02	Sheen	0.00
MW-2	10/9/2002 (1)	NA	0.00
MW-2	01/13/03	0.26	0.13
MW-2	02/14/03	ND	0.00
MW-2	03/24/03	ND	0.00
MW-2	04/07/03	0.05	0.00
MW-2	05/23/03	ND	0.00
MW-2	06/24/03	0.03	0.01
MW-2	07/09/03	0.07	0.03
MW-2	07/31/03	0.05	0.03
MW-2	09/04/03	0.02	0.01
MW-2	10/01/03	0.07	0.02
MW-2	11/12/03	0.59	0.36
MW-2	12/11/03	0.05	0.07
MW-2	02/05/04	0.13	0.02
MW-2	02/16/04	0.02	0.01
MW-2	03/11/04	ND	0.00
MW-2	03/30/04	ND	0.00
MW-2	04/05/04	ND	0.00
MW-2	07/13/04	ND	0.00
MW-2	08/31/04	ND	0.00
MW-2	09/07/04	ND	0.00
MW-2	11/04/04	0.22	0.14
MW-2	11/29/04	0.02	0.05
MW-2	12/15/04	0.24	0.16
MW-2	01/20/05	ND	0.00
MW-2	02/04/05	Sheen	0.00
MW-2	03/23/05	Sheen	0.00
MW-2	04/11/05	ND	0.00
MW-2	05/12/05	ND	0.00
MW-2	06/20/05	ND	0.00
MW-2	08/01/05	ND	0.00
MW-2	08/24/05	ND	0.00
MW-2	09/16/05	ND	0.00
MW-2	10/21/05	Sheen	0.00
MW-2	01/18/06	Sheen	0.00
<b>Approximate Cumulative Floating Product Recovered:</b>			<b>1.44</b>

## FOOTNOTES:

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

**ATTACHMENT A**  
**FIELD PROCEDURES AND FIELD DATA SHEETS**

## FIELD PROCEDURES

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### Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe.

Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

WELL GAUGING DATA

Project # 060118-SL1 Date 01/18/06 Client Arco 2111

Site 1156 Davis St. San Leandro

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	4					14.70	26.30		NP 12.5
MW-2	4	odor	No SPH detected			12.81	—		Bail SPH NP 12
MW-3	4					13.80	26.15		NP 11.9
MW-4	4					12.92	21.85		NP 10
MW-5	2					12.60	23.90		NP 9.4
MW-6	2					11.80	24.95		GO
MW-7	4					12.60	26.40		NP 12
MW-8	2					13.60	39.20	↓	Purge

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060118-SL1</u>	Station # <u>2111</u>
Sampler: <u>Shawn</u>	Date: <u>01/18/06</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>26.30</u>	Depth to Water: <u>14.70</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVD</u> Grade:	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: 12.5 If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>NPO</u> <u>12.5</u>	X	=	Gals.
1 Case Volume (Gals.)	Specified Volumes	Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
<u>10.30</u>	<u>60.4</u>	<u>6.6</u>	<u>726</u>	—	<u>clear</u>

Did well dewater? Yes  No  Gallons actually evacuated:   

Sampling Time: 1030 Sampling Date: 01/18/06

Sample I.D.: MW-1 Laboratory: Pace Sequoia Other: \_\_\_\_\_

Analyzed for:  GRO  BTEX  MTBE  DRO  Oxy's  1,2-DCA  EDB  Ethanol Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: <u>00.77</u> mg/L	<u>1.07</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV	

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060118-SU</u>	Station # <u>211</u>
Sampler: <u>SHAWN</u>	Date: <u>01/18/06</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 <u>4</u> 6 8 <u>   </u>
Total Well Depth: <u>   </u>	Depth to Water: <u>12.81</u>
Depth to Free Product: <u>   </u>	Thickness of Free Product (feet): <u>   </u>
Referenced to: <u>PVC</u> Grade: <u>   </u>	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other:    

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other:    

Top of Screen: 12 If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

NFC 12 X     =     Gals.  
 1 Case Volume (Gals.) Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
<u>1115</u>	<u>63.9</u>	<u>6.6</u>	<u>6.6 715</u>	<u>   </u>	<u>odor, sheen</u>

Did well dewater? Yes  No  Gallons actually evacuated:    

Sampling Time: 1115 Sampling Date: 01/18/06

Sample I.D.: MW-2 Laboratory: Pace Sequola Other    

Analyzed for:  GRO  BTEX  MTBE  DRO  Oxy's  PCBs  EDB  Ethanol Other:    

D.O. (if req'd):	Pre-purge: <u>   </u> mg/L	Post-purge: <u>1.8</u> mg/L
O.R.P. (if req'd):	Pre-purge: <u>   </u> mV	Post-purge: <u>   </u> mV



## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060118-SL1</u>	Station # <u>2111</u>
Sampler: <u>SHAWN</u>	Date: <u>01/18/06</u>
Well I.D.: <u>MW-3</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>26.15</u>	Depth to Water: <u>13.80</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: ~~Bailer~~  
~~Disposable Bailer~~  
~~Positive Air Displacement~~  
~~Electric Submersible~~  
~~Extraction Pump~~  
 Other: \_\_\_\_\_

Sampling Method: ~~Bailer~~  
~~Disposable Bailer~~  
~~Extraction Port~~  
 Other: \_\_\_\_\_

Top of Screen: 11.9 If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>NPE 11.9</u>	X	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
<u>0930</u>	<u>59.8</u>	<u>6.6</u>	<u>688</u>	<u>—</u>	<u>clear</u>

Did well dewater? Yes  No  Gallons actually evacuated: —

Sampling Time: 0930 Sampling Date: 01/18/06

Sample I.D.: MW-3 Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for: DRO MTBE MTBE DRO Oxy's 1,2-DCA EDB Bifnol Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: \_\_\_\_\_ mg/L Post-purge: 1.13 mg/L

O.R.P. (if req'd): Pre-purge: \_\_\_\_\_ mV Post-purge: \_\_\_\_\_ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060118-5L1</u>	Station # <u>211</u>
Sampler: <u>Shawn</u>	Date: <u>01/18/06</u>
Well I.D.: <u>MW-4</u>	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth: <u>21.85</u>	Depth to Water: <u>12.92</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade.	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: ~~Bailer~~  Bailer  
~~Disposable Bailer~~  Disposable Bailer  
~~Positive Air Displacement~~  Positive Air Displacement  
~~Electric Submersible~~  Electric Submersible  
~~Extraction Pump~~  Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: 10 If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>NPO 10</u> 1 Case Volume (Gals.)	x	_____	=	_____	Gals. Calculated Volume
		Specified Volumes			

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
<u>0830</u>	<u>63.1</u>	<u>6.5</u>	<u>825</u>	<u>✓</u>	<u>clear</u>

Did well dewater? Yes  No  Gallons actually evacuated: ✓

Sampling Time: 0830 Sampling Date: 01/18/06

Sample I.D.: MW-4 Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for:  DRO  BTEX  MTBE  DRO  DRY  2-DCA  EDB  Ethanol Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: \_\_\_\_\_ mg/L Post-purge: 0.77 mg/L

O.R.P. (if req'd): Pre-purge: \_\_\_\_\_ mV Post-purge: \_\_\_\_\_ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060118-SLI</u>	Station # <u>211</u>
Sampler: <u>Shawn</u>	Date: <u>01/18/06</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>23.90</u>	Depth to Water: <u>12.60</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade.	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: N 9.4 If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>NPR 9.4</u>	X	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
<u>1010</u>	<u>59.7</u>	<u>6.7</u>	<u>711</u>	<u>—</u>	<u>cloudy</u>

Did well dewater? Yes  No  Gallons actually evacuated: —

Sampling Time: 1010 Sampling Date: 01/18/06

Sample I.D.: MW-5 Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for:  GRO  BTEX MTBE DRO  Oxy's  2-DCA  EDB Ethanol Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	<u>1.20</u> mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060118-SL1</u>	Station # <u>Z111</u>
Sampler: <u>SHAWA</u>	Date: <u>01/18/06</u>
Well I.D.: <u>MW-7</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>26.40</u>	Depth to Water: <u>12.60</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: 12 If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>NPR 12</u>	X	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
<u>11:45</u>	<u>64.2</u>	<u>6.7</u>	<u>960</u>	<u>—</u>	<u>clear, odor</u>

Did well dewater? Yes  No  Gallons actually evacuated: —

Sampling Time: 11:45 Sampling Date: 01/18/06

Sample I.D.: MW-7 Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for:  GPC  BTEX MTBE DRO  Oxy  1,2-DCP  BDN  Ethanol Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: <u>0.87</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <b>060118-SL1</b>	Station # <b>211</b>
Sampler: <b>SHAWN</b>	Date: <b>01/18/06</b>
Well I.D.: <b>MW-8</b>	Well Diameter: <input checked="" type="radio"/> 2   3   4   6   8
Total Well Depth: <b>39.20</b>	Depth to Water: <b>13.60</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="radio"/> PVC   Grade:	D.O. Meter (if req'd): <input checked="" type="radio"/> YSI   HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method:       Bailer      Sampling Method:       Bailer

Disposable Bailer       Disposable Bailer

Positive Air Displacement       Extraction Port

Electric Submersible      Other: \_\_\_\_\_

Extraction Pump

Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<b>4.1</b>	x	<b>3</b>	=	<b>12.3</b>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
11.55	65.1	6.8	689.2	4.1	clear
12.05	65.2	6.6	683.9	8.2	cloudy
12.15	65.4	6.6	681.3	12.3	"

Did well dewater? Yes  No  Gallons actually evacuated: **12.3**

Sampling Time: **12:20**      Sampling Date: **01/18/06**

Sample I.D.: **MW-8**      Laboratory: Pace  Sequoia   Other \_\_\_\_\_

Analyzed for:  GRO  BTEX   MTBE   DRO    Oxy's    1,2-DCA    EDB    Ethanol   Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
			<b>2.28</b>	
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

**BP GEM OIL COMPANY TYPE A BILL OF LADING**

SOURCE RECORD BILL OF LADING FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is PLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. 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:

2111

Station #

1156 Davis San Leandro

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

15

added equip. rinse water \_\_\_\_\_

any other adjustments \_\_\_\_\_

TOTAL GALS. RECOVERED 15

loaded onto BTS vehicle # 22

BTS event #

time date  
1215 01/18/06

signature

S/AO

\*\*\*\*\*

REC'D AT

time date  
/ /

unloaded by signature \_\_\_\_\_

**ATTACHMENT B**

**LABORATORY PROCEDURES,  
CERTIFIED ANALYTICAL REPORTS,  
AND CHAIN-OF-CUSTODY RECORDS**

## **LABORATORY PROCEDURES**

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### **Laboratory Procedures**

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by RM have been reviewed and verified by that laboratory.





10 February, 2006

Scott Robinson  
URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland, CA 94612

RE: ARCO #2111, San Leandro, CA  
Work Order: MPA1160

Enclosed are the results of analyses for samples received by the laboratory on 01/19/06 09:34. 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.

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #2111, San Leandro, CA  
Project Number: G0C28-0004  
Project Manager: Scott Robinson

MPA1160  
Reported:  
02/10/06 13:12

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MPA1160-01	Water	01/18/06 10:30	01/19/06 09:34
MW-2	MPA1160-02	Water	01/18/06 11:15	01/19/06 09:34
MW-3	MPA1160-03	Water	01/18/06 09:30	01/19/06 09:34
MW-4	MPA1160-04	Water	01/18/06 08:30	01/19/06 09:34
MW-5	MPA1160-05	Water	01/18/06 10:10	01/19/06 09:34
MW-7	MPA1160-06	Water	01/18/06 11:45	01/19/06 09:34
MW-8	MPA1160-07	Water	01/18/06 12:20	01/19/06 09:34
TB-2111-011806	MPA1160-08	Water	01/18/06 00:00	01/19/06 09:34

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.

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MPA1160  
 Reported:  
 02/10/06 13:12

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MPA1160-01) Water</b> Sampled: 01/18/06 10:30 Received: 01/19/06 09:34									
tert-Amyl methyl ether	9.7	2.5	ug/l	5	6B01005	02/01/06	02/01/06	EPA 8260B	
Benzene	ND	2.5	"	"	"	"	"	"	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.5	"	"	"	"	"	"	
Ethanol	ND	1500	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	ND	2.5	"	"	"	"	"	"	
Methyl tert-butyl ether	330	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
<b>Gasoline Range Organics (C4-C12)</b>	<b>300</b>	<b>250</b>	"	"	"	"	"	"	<b>PV</b>
<i>Surrogate: 1,2-Dichloroethane-d4</i>		89 %	60-135		"	"	"	"	
<b>MW-2 (MPA1160-02) Water</b> Sampled: 01/18/06 11:15 Received: 01/19/06 09:34									
tert-Amyl methyl ether	ND	50	ug/l	100	6A31010	01/31/06	01/31/06	EPA 8260B	
<b>Benzene</b>	<b>71</b>	50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	2000	"	"	"	"	"	"	
Di-isopropyl ether	ND	50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	50	"	"	"	"	"	"	
Ethanol	ND	30000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	50	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>470</b>	50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>1600</b>	50	"	"	"	"	"	"	
Toluene	ND	50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>1400</b>	50	"	"	"	"	"	"	
<b>Gasoline Range Organics (C4-C12)</b>	<b>21000</b>	<b>5000</b>	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		113 %	60-135		"	"	"	"	



URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project:ARCO #2111, San Leandro, CA Project Number:G0C28-0004 Project Manager:Scott Robinson	MPA1160 Reported: 02/10/06 13:12
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**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**MW-3 (MPA1160-03) Water**    **Sampled: 01/18/06 09:30**    **Received: 01/19/06 09:34**

<b>tert-Amyl methyl ether</b>	<b>1.3</b>	0.50	ug/l	1	6A31022	01/31/06	01/31/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>13</b>	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<b>Gasoline Range Organics (C4-C12)</b>	<b>73</b>	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91 %		60-135	"	"	"	"	

**MW-4 (MPA1160-04) Water**    **Sampled: 01/18/06 08:30**    **Received: 01/19/06 09:34**

<b>tert-Amyl methyl ether</b>	<b>2.5</b>	0.50	ug/l	1	6A31022	01/31/06	01/31/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>8.9</b>	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<b>Gasoline Range Organics (C4-C12)</b>	<b>ND</b>	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97 %		60-135	"	"	"	"	

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #2111, San Leandro, CA  
Project Number: G0C28-0004  
Project Manager: Scott Robinson

MPA1160  
Reported:  
02/10/06 13:12

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-5 (MPA1160-05) Water</b> Sampled: 01/18/06 10:10 Received: 01/19/06 09:34									
tert-Amyl methyl ether	ND	2.5	ug/l	5	6A31022	01/31/06	01/31/06	EPA 8260B	
Benzene	ND	2.5	"	"	"	"	"	"	
<b>tert-Butyl alcohol</b>	<b>2200</b>	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.5	"	"	"	"	"	"	
Ethanol	ND	1500	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	ND	2.5	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>100</b>	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	250	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97 %		60-135	"	"	"	"	
<b>MW-7 (MPA1160-06) Water</b> Sampled: 01/18/06 11:45 Received: 01/19/06 09:34									
tert-Amyl methyl ether	ND	100	ug/l	200	6A31022	01/31/06	01/31/06	EPA 8260B	
<b>Benzene</b>	<b>310</b>	100	"	"	"	"	"	"	
<b>tert-Butyl alcohol</b>	<b>15000</b>	4000	"	"	"	"	"	"	
Di-isopropyl ether	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
Ethanol	ND	60000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>13000</b>	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>110</b>	100	"	"	"	"	"	"	
<b>Gasoline Range Organics (C4-C12)</b>	<b>16000</b>	10000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %		60-135	"	"	"	"	

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0004 Project Manager: Scott Robinson	MPA1160 Reported: 02/10/06 13:12
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**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-8 (MPA1160-07) Water    Sampled: 01/18/06 12:20    Received: 01/19/06 09:34</b>									
tert-Amyl methyl ether	5.2	5.0	ug/l	10	6A31022	01/31/06	01/31/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	200	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	3000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>500</b>	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	500	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97 %		60-135	"	"	"	"	



URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0004 Project Manager: Scott Robinson	MPA1160 Reported: 02/10/06 13:12
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6A31010 - EPA 5030B P/T / EPA 8260B**

**Blank (6A31010-BLK1)**

Prepared & Analyzed: 01/31/06

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.67		"	5.00		93	60-135			

**Laboratory Control Sample (6A31010-BS1)**

Prepared & Analyzed: 01/31/06

tert-Amyl methyl ether	16.8	0.50	ug/l	16.3		103	80-115			
Benzene	4.71	0.50	"	5.04		93	65-115			
tert-Butyl alcohol	151	20	"	169		89	75-150			
Di-isopropyl ether	15.8	0.50	"	16.2		98	75-125			
1,2-Dibromoethane (EDB)	16.5	0.50	"	16.6		99	85-120			
1,2-Dichloroethane	15.8	0.50	"	15.5		102	85-130			
Ethanol	118	300	"	165		72	70-135			
Ethyl tert-butyl ether	15.8	0.50	"	16.4		96	75-130			
Ethylbenzene	6.36	0.50	"	7.28		87	75-135			
Methyl tert-butyl ether	7.18	0.50	"	7.84		92	65-125			
Toluene	39.6	0.50	"	38.0		104	85-120			
Xylenes (total)	38.8	0.50	"	40.8		95	85-125			
Gasoline Range Organics (C4-C12)	388	50	"	440		88	60-140			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.72		"	5.00		94	60-135			

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #2111, San Leandro, CA  
Project Number: G0C28-0004  
Project Manager: Scott Robinson

MPA1160  
Reported:  
02/10/06 13:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6A31010 - EPA 5030B P/T / EPA 8260B**

<b>Matrix Spike (6A31010-MS1)</b>	<b>Source: MPA1135-06RE1</b>			<b>Prepared &amp; Analyzed: 01/31/06</b>						
tert-Amyl methyl ether	176	5.0	ug/l	163	ND	108	80-115			
Benzene	48.0	5.0	"	50.4	ND	95	65-115			
tert-Butyl alcohol	2340	200	"	1690	800	91	75-120			
Di-isopropyl ether	158	5.0	"	162	ND	98	75-125			
1,2-Dibromoethane (EDB)	166	5.0	"	166	ND	100	85-120			
1,2-Dichloroethane	152	5.0	"	155	ND	98	85-130			
Ethanol	1350	3000	"	1650	ND	82	70-135			
Ethyl tert-butyl ether	158	5.0	"	164	ND	96	75-130			
Ethylbenzene	67.5	5.0	"	72.8	ND	93	75-135			
Methyl tert-butyl ether	308	5.0	"	78.4	250	74	65-125			
Toluene	399	5.0	"	380	ND	105	85-120			
Xylenes (total)	428	5.0	"	408	ND	105	85-125			
Gasoline Range Organics (C4-C12)	4200	500	"	4400	300	89	60-140			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.59</i>		<i>"</i>	<i>5.00</i>		<i>92</i>	<i>60-135</i>			

<b>Matrix Spike Dup (6A31010-MSD1)</b>	<b>Source: MPA1135-06RE1</b>			<b>Prepared &amp; Analyzed: 01/31/06</b>						
tert-Amyl methyl ether	185	5.0	ug/l	163	ND	113	80-115	5	15	
Benzene	50.6	5.0	"	50.4	ND	100	65-115	5	20	
tert-Butyl alcohol	2430	200	"	1690	800	96	75-120	4	25	
Di-isopropyl ether	168	5.0	"	162	ND	104	75-125	6	15	
1,2-Dibromoethane (EDB)	174	5.0	"	166	ND	105	85-120	5	15	
1,2-Dichloroethane	156	5.0	"	155	ND	101	85-130	3	20	
Ethanol	1380	3000	"	1650	ND	84	70-135	2	35	
Ethyl tert-butyl ether	167	5.0	"	164	ND	102	75-130	6	25	
Ethylbenzene	66.6	5.0	"	72.8	ND	91	75-135	1	15	
Methyl tert-butyl ether	325	5.0	"	78.4	250	96	65-125	5	20	
Toluene	413	5.0	"	380	ND	109	85-120	3	20	
Xylenes (total)	405	5.0	"	408	ND	99	85-125	6	20	
Gasoline Range Organics (C4-C12)	4310	500	"	4400	300	91	60-140	3	25	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.75</i>		<i>"</i>	<i>5.00</i>		<i>95</i>	<i>60-135</i>			



URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #2111, San Leandro, CA  
Project Number: G0C28-0004  
Project Manager: Scott Robinson

MPA1160  
Reported:  
02/10/06 13:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6A31022 - EPA 5030B P/T / EPA 8260B**

**Blank (6A31022-BLK1)**

Prepared & Analyzed: 01/31/06

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.91</i>		<i>"</i>	<i>5.00</i>		<i>98</i>	<i>60-135</i>			

**Laboratory Control Sample (6A31022-BS1)**

Prepared & Analyzed: 01/31/06

tert-Amyl methyl ether	17.1	0.50	ug/l	16.3		105	80-115			
Benzene	4.98	0.50	"	5.04		99	65-115			
tert-Butyl alcohol	146	20	"	169		86	75-150			
Di-isopropyl ether	16.0	0.50	"	16.2		99	75-125			
1,2-Dibromoethane (EDB)	16.2	0.50	"	16.6		98	85-120			
1,2-Dichloroethane	16.1	0.50	"	15.5		104	85-130			
Ethanol	165	300	"	165		100	70-135			
Ethyl tert-butyl ether	16.0	0.50	"	16.4		98	75-130			
Ethylbenzene	6.59	0.50	"	7.28		91	75-135			
Methyl tert-butyl ether	7.12	0.50	"	7.84		91	65-125			
Toluene	40.3	0.50	"	38.0		106	85-120			
Xylenes (total)	38.8	0.50	"	40.8		95	85-125			
Gasoline Range Organics (C4-C12)	411	50	"	440		93	60-140			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.00</i>		<i>"</i>	<i>5.00</i>		<i>100</i>	<i>60-135</i>			

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MPA1160  
 Reported:  
 02/10/06 13:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6A31022 - EPA 5030B P/T / EPA 8260B**

<b>Matrix Spike (6A31022-MS1)</b>	<b>Source: MPA1124-05</b>			<b>Prepared &amp; Analyzed: 01/31/06</b>						
tert-Amyl methyl ether	17.2	0.50	ug/l	16.3	ND	106	80-115			
Benzene	4.91	0.50	"	5.04	ND	97	65-115			
tert-Butyl alcohol	155	20	"	169	ND	92	75-120			
Di-isopropyl ether	16.1	0.50	"	16.2	ND	99	75-125			
1,2-Dibromoethane (EDB)	16.7	0.50	"	16.6	ND	101	85-120			
1,2-Dichloroethane	16.2	0.50	"	15.5	ND	105	85-130			
Ethanol	187	300	"	165	9.1	108	70-135			
Ethyl tert-butyl ether	16.2	0.50	"	16.4	ND	99	75-130			
Ethylbenzene	6.79	0.50	"	7.28	ND	93	75-135			
Methyl tert-butyl ether	7.58	0.50	"	7.84	0.14	95	65-125			
Toluene	40.5	0.50	"	38.0	ND	107	85-120			
Xylenes (total)	41.1	0.50	"	40.8	ND	101	85-125			
Gasoline Range Organics (C4-C12)	425	50	"	440	13	94	60-140			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.86</i>		<i>"</i>	<i>5.00</i>		<i>97</i>	<i>60-135</i>			

<b>Matrix Spike Dup (6A31022-MSD1)</b>	<b>Source: MPA1124-05</b>			<b>Prepared &amp; Analyzed: 01/31/06</b>						
tert-Amyl methyl ether	17.2	0.50	ug/l	16.3	ND	106	80-115	0	15	
Benzene	4.86	0.50	"	5.04	ND	96	65-115	1	20	
tert-Butyl alcohol	154	20	"	169	ND	91	75-120	0.6	25	
Di-isopropyl ether	16.0	0.50	"	16.2	ND	99	75-125	0.6	15	
1,2-Dibromoethane (EDB)	16.6	0.50	"	16.6	ND	100	85-120	0.6	15	
1,2-Dichloroethane	15.2	0.50	"	15.5	ND	98	85-130	6	20	
Ethanol	142	300	"	165	9.1	81	70-135	27	35	
Ethyl tert-butyl ether	15.7	0.50	"	16.4	ND	96	75-130	3	25	
Ethylbenzene	6.57	0.50	"	7.28	ND	90	75-135	3	15	
Methyl tert-butyl ether	7.43	0.50	"	7.84	0.14	93	65-125	2	20	
Toluene	41.0	0.50	"	38.0	ND	108	85-120	1	20	
Xylenes (total)	39.7	0.50	"	40.8	ND	97	85-125	3	20	
Gasoline Range Organics (C4-C12)	419	50	"	440	13	92	60-140	1	25	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.74</i>		<i>"</i>	<i>5.00</i>		<i>95</i>	<i>60-135</i>			

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #2111, San Leandro, CA  
Project Number: G0C28-0004  
Project Manager: Scott Robinson

MPA1160  
Reported:  
02/10/06 13:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6B01005 - EPA 5030B P/T / EPA 8260B**

**Blank (6B01005-BLK1)**

Prepared & Analyzed: 02/01/06

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.55		"	5.00		91	60-135			

**Laboratory Control Sample (6B01005-BS1)**

Prepared & Analyzed: 02/01/06

tert-Amyl methyl ether	16.6	0.50	ug/l	16.3		102	80-115			
Benzene	5.05	0.50	"	5.04		100	65-115			
tert-Butyl alcohol	150	20	"	169		89	75-150			
Di-isopropyl ether	16.0	0.50	"	16.2		99	75-125			
1,2-Dibromoethane (EDB)	16.3	0.50	"	16.6		98	85-120			
1,2-Dichloroethane	14.3	0.50	"	15.5		92	85-130			
Ethanol	167	300	"	165		101	70-135			
Ethyl tert-butyl ether	15.8	0.50	"	16.4		96	75-130			
Ethylbenzene	6.37	0.50	"	7.28		87	75-135			
Methyl tert-butyl ether	7.18	0.50	"	7.84		92	65-125			
Toluene	40.2	0.50	"	38.0		106	85-120			
Xylenes (total)	39.2	0.50	"	40.8		96	85-125			
Gasoline Range Organics (C4-C12)	379	50	"	440		86	60-140			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.85		"	5.00		97	60-135			

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: GOC28-0004  
 Project Manager: Scott Robinson

 MPA1160  
 Reported:  
 02/10/06 13:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6B01005 - EPA 5030B P/T / EPA 8260B**

<b>Matrix Spike (6B01005-MS1)</b>	<b>Source: MPA1160-01</b>			<b>Prepared &amp; Analyzed: 02/01/06</b>						
tert-Amyl methyl ether	92.8	2.5	ug/l	81.6	9.7	102	80-115			
Benzene	23.6	2.5	"	25.2	1.1	89	65-115			
tert-Butyl alcohol	755	100	"	844	28	86	75-120			
Di-isopropyl ether	77.0	2.5	"	81.2	ND	95	75-125			
1,2-Dibromoethane (EDB)	79.4	2.5	"	83.2	ND	95	85-120			
1,2-Dichloroethane	71.4	2.5	"	77.6	ND	92	85-130			
Ethanol	687	1500	"	824	ND	83	70-135			
Ethyl tert-butyl ether	77.1	2.5	"	82.0	ND	94	75-130			
Ethylbenzene	33.0	2.5	"	36.4	ND	91	75-135			
Methyl tert-butyl ether	356	2.5	"	39.2	330	66	65-125			
Toluene	198	2.5	"	190	ND	104	85-120			
Xylenes (total)	202	2.5	"	204	ND	99	85-125			
Gasoline Range Organics (C4-C12)	2250	250	"	2200	300	89	60-140			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.62		"	5.00		92	60-135			

<b>Matrix Spike Dup (6B01005-MSD1)</b>	<b>Source: MPA1160-01</b>			<b>Prepared &amp; Analyzed: 02/01/06</b>						
tert-Amyl methyl ether	102	2.5	ug/l	81.6	9.7	113	80-115	9	15	
Benzene	26.5	2.5	"	25.2	1.1	101	65-115	12	20	
tert-Butyl alcohol	801	100	"	844	28	92	75-120	6	25	
Di-isopropyl ether	81.8	2.5	"	81.2	ND	101	75-125	6	15	
1,2-Dibromoethane (EDB)	86.9	2.5	"	83.2	ND	104	85-120	9	15	
1,2-Dichloroethane	76.1	2.5	"	77.6	ND	98	85-130	6	20	
Ethanol	729	1500	"	824	ND	88	70-135	6	35	
Ethyl tert-butyl ether	82.9	2.5	"	82.0	ND	101	75-130	7	25	
Ethylbenzene	33.8	2.5	"	36.4	ND	93	75-135	2	15	
Methyl tert-butyl ether	372	2.5	"	39.2	330	107	65-125	4	20	
Toluene	206	2.5	"	190	ND	108	85-120	4	20	
Xylenes (total)	209	2.5	"	204	ND	102	85-125	3	20	
Gasoline Range Organics (C4-C12)	2400	250	"	2200	300	95	60-140	6	25	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.72		"	5.00		94	60-135			

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612Project:ARCO #2111, San Leandro, CA  
Project Number:G0C28-0004  
Project Manager:Scott RobinsonMPA1160  
Reported:  
02/10/06 13:12**Notes and Definitions**

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

DET Analyte DETECTED

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

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



# Chain of Custody Record

Project Name: Analytical for QMR sampling  
 BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > Central > 2111 > Historical/BL  
 State or Lead Regulatory Agency: California Regional Water Quality Control Board - San Francisco Bay Area  
 Requested Due Date (mm/dd/yy): 10 Day TAT

On-site Time: 0900 Temp: 60  
 Off-site Time: 12:30 Temp: 60  
 Sky Conditions: RAIN  
 Meteorological Events:  
 Wind Speed: Direction:

Lab Name: Sequoia	BP/AR Facility No.: 2111	Consultant/Contractor: URS
Address: 885 Jarvis Drive Morgan Hill, CA 95037	BP/AR Facility Address: 1156 Davis St, San Leandro, CA 94577	Address: 1333 Broadway, Suite 800 Oakland, CA 94612
Lab PM: Lisa Race / Jamshid Kekobad	California Global ID No.: T0600101764	Consultant/Contractor Project No.: 38487022
Tele/Fax: 408.782.8156 / 408.782.6308	Enfos Project No.: G0C28-0004	Consultant/Contractor PM: Scott Robinson
BP/AR PM Contact: Paul Supple	Provision or RCOP: Provision	Tele/Fax: 510.874.3280 / 510.874.3268
Address: P.O. Box 6549 Moraga, CA 94570	Phase/WBS: 04 - Mon/Remed by Natural Attenuation	Report Type & QC Level: Level 1 with EDF
Tele/Fax: 925.299.8891 / 925.299.8872	Sub Phase/Task: 03 - Analytical	E-mail EDD To: Donna_Cosper@URSCorp.com
	Cost Element: 05 - Subcontracted Costs	Invoice to: Atlantic Richfield Company

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample-Point-Lat/Long and Comments			
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GR0 / BTEX (9260)	MTBE, TAME, ETBE, DPE, TBA (9260)	1,2-DCA & EDB (9260)	ETHANOL (9260)					
1	MW-1	1030	11/18/06	X			01	3						X	X	X	X				MPA 1160	
2	MW-2	1115		X			02							X	X	X	X					
3	MW-3	0930		X			03							X	X	X	X					
4	MW-4	0930		X			04							X	X	X	X					
5	MW-5	1010		X			05							X	X	X	X					
6	MW-7	1145		X			06							X	X	X	X					
7	MW-8	1220		X			07							X	X	X	X					
8	TB-211-01806		11/18/06	X			08	2														On hold

Sampler's Name:	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Shawn Lane Blainetech	S. Lane (sample custodian)	11/18/06	1549	[Signature]	11/18/06	1549
		11/19/06	0905	[Signature]	11/19/06	9:25
		11/19/06	9:39	[Signature]	11/19/06	9:39

Special Instructions:

Custody Seals In Place Yes  No  Temp Blank Yes  No  Cooler Temperature on Receipt 3.3 °F/C Trip Blank Yes  No

## SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS  
 REC. BY (PRINT): MF  
 WORKORDER: MDA 1140

DATE REC'D AT LAB: 1/19/06  
 TIME REC'D AT LAB: 9:34  
 DATE LOGGED IN: 1-22-06

For Regulatory Purposes?  
 DRINKING WATER YES/NO NO  
 WASTE WATER YES/NO NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <u>Absent</u> Intact / Broken*									MF 1/19/06
2. Chain-of-Custody <u>Present</u> / Absent*									
3. Traffic Reports or Packing List: Present / <u>Absent</u>									
4. Airbill: Airbill / Sticker Present / <u>Absent</u>									
5. Airbill #:									
6. Sample Labels: <u>Present</u> / Absent									
7. Sample IDs: <u>Listed</u> / Not Listed on Chain-of-Custody									
8. Sample Condition: <u>Intact</u> / Broken* / Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree? <u>Yes</u> / No*									
10. Sample received within hold time? <u>Yes</u> / No*									
11. Adequate sample volume received? <u>Yes</u> / No*									
12. Proper preservatives used? <u>Yes</u> / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) <u>Yes</u> / No*									
14. Read Temp: <u>3.3</u> Corrected Temp: <u>3.2</u> Is corrected temp 4 +/- 2°C? <u>Yes</u> / No** <small>(Acceptance range for samples requiring thermal pres.)</small>									

\*\*Exception (if any): METALS / DFF ON ICE  
 or Problem COC

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

**ATTACHMENT C**  
**HISTORIC GROUNDWATER DATA**



**Table 1**  
**Historical Groundwater Elevation and Analytical Data**  
**Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-1	08-01-95	39.60	17.45	ND	22.15	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	12-14-95	39.60	17.09	ND	22.51	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	03-21-96	39.60	14.72	ND	24.88	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	05-24-96	39.60	15.94	ND	23.66	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	08-09-96	39.60	17.89	ND	21.71	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	11-06-96	39.60	18.66	ND	20.94	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	03-24-97	39.60	16.13	ND	23.47	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	05-27-97	39.60	17.23	ND	22.37	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	08-07-97	39.60	18.68	ND	20.92	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	11-10-97	39.60	19.19	ND	20.41	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	02-16-98	39.60	12.61	ND	26.99	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	04-15-98	39.60	14.30	ND	25.30	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	07-24-98	39.60	16.40	ND	23.20	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	10-19-98	39.60	17.90	ND	21.70	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..	..	..
MW-1	01-28-99	39.60	16.85	ND	22.75	01-28-99	<20,000	580	<200	<200	320	14,000	..	..	..	..	..
MW-1	06-25-99	39.60	17.35	ND	22.25	06-25-99	730	140	5	3	2	7,700	..	..	..	0.79	NP
MW-1	08-25-99	39.60	18.20	ND	21.40	08-25-99	390	66	8.5	<2.5	8.6	3,700	..	..	..	1.56	NP
MW-1	11-10-99	39.60	17.77	ND	21.83	11-10-99	360	70	13	2.2	13	980	..	..	..	0.30	NP
MW-1	02-09-00	39.60	16.25	ND	23.35	02-09-00	190	4.5	0.9	<0.5	12	3,500	..	..	..	0.53	NP
MW-2	08-01-95	37.99	15.67	ND	22.32	08-01-95	23,000	1,300	310	500	3,500	..	..	..	..	..	..
MW-2	12-14-95	37.99	15.36	ND	22.63	12-14-95	7,300	900	25	180	1,000	<200	..	..	..	..	..
MW-2	03-21-96	37.99	12.84	ND	25.15	03-21-96	9,600	850	30	280	1,400	250	..	..	..	..	..
MW-2	05-24-96	37.99	14.03	ND	23.96	05-24-96	2,300	300	<5	73	310	<25	..	..	..	..	..
MW-2	08-09-96	37.99	16.10	ND	21.89	08-09-96	2,800	290	6	75	320	50	..	..	..	..	..

**Table 1**  
**Historical Groundwater Elevation and Analytical Data**  
**Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHIG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged P/NP
MW-2	11-06-96	37.99	16.98	ND	21.01	11-06-96	750	76	<1	15	51	110	::	::	::		
MW-2	03-24-97	37.99	14.22	ND	23.77	03-24-97	790	18	<1	2	6	280	::	::	::		
MW-2	05-27-97	37.99	15.42	ND	22.57	05-28-97	750	14	<1	<1	10	150	::	::	::		
MW-2	08-07-97	37.99	16.92	ND	21.07	08-07-97	360	31	<5	<5	15	260	::	::	::		
MW-2	11-10-97	37.99	17.52	ND	20.47	11-10-97	1,300	82	<5	14	49	550	::	::	::		
MW-2	02-16-98	37.99	12.04	ND	25.95	02-16-98	<2,500	<25	<25	<25	<25	4,200	::	::	::		
MW-2	04-15-98	37.99	12.34	ND	25.65	04-15-98	<10,000	<100	<100	<100	<100	7,300	::	::	::		
MW-2	07-24-98	37.99	14.45	ND	23.54	07-24-98	<2,500	<25	<25	<25	<25	1,500	::	::	::		
MW-2	10-19-98	37.99	16.08	ND	21.91	10-19-98	<1,000	18	<10	<10	<10	1,100	::	::	::		
MW-2	01-28-99	37.99	15.59	0.02	22.41 [1]	01-28-99	160,000	3,000	24,000	4,400	31,000	23,000	::	::	::		
MW-2	06-25-99	37.99	19.20	3.73[4]	21.51 [1]	06-25-99	120,000	6,900	21,000	2,600	19,000	18,000	17,000[3]	::	::	0.49	NP
MW-2	08-25-99	37.99	16.49	0.02	21.51 [1]	08-25-99	92,000	2,200	16,000	3,200	19,000	11,000	9,400[3]	::	::	0.84	NP
MW-2	11-10-99	37.99	16.08	ND	21.91	11-10-99	56,000	2,400	5,900	1,500	10,000	17,000	21,000[3]	::	::	0.41	NP
MW-2	02-09-00	37.99	14.85	ND	23.14	02-09-00	1,700	270	14	17	21	70,000	55,000[3]	::	::	0.97	NP
MW-3	08-01-95	39.32	17.00	ND	22.32	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	::	::	600	76[2]		
MW-3	12-14-95	39.32	16.70	ND	22.62	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<50	::	<500	<50		
MW-3	03-21-96	39.32	14.17	ND	25.15	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<50	::	<500	<50		
MW-3	05-24-96	39.32	15.30	ND	24.02	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<50	::	<500	<50		
MW-3	08-09-96	39.32	17.58	ND	21.74	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<50	::	<500			
MW-3	11-06-96	39.32	18.33	ND	20.99	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<50	::				
MW-3	03-24-97	39.32	15.44	ND	23.88	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<50	::				
MW-3	05-27-97	39.32	16.75	ND	22.57	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<50	::				
MW-3	08-07-97	39.32	18.35	ND	20.97	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<50	::				
MW-3	11-10-97	39.32	18.83	ND	20.49	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<50	::				

**Table 1**  
**Historical Groundwater Elevation and Analytical Data**  
**Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHC LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPED LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged P/NP
MW-3	02-16-98	39.32	11.99	ND	27.33	02-16-98	50	0.5	0.5	0.5	0.5	0					
MW-3	04-15-98	39.32	13.75	ND	25.57	04-15-98	50	0.5	0.5	0.5	0.5	0					
MW-3	07-24-98	39.32	15.90	ND	23.42	07-24-98	50	0.5	0.5	0.5	0.5	0					
MW-3	10-19-98	39.32	17.45	ND	21.87	10-19-98	50	0.5	0.5	0.5	0.5	0					
MW-3	01-28-99	39.32	16.40	ND	22.92	01-28-99	<100	14	4	1	6	100					
MW-3	06-25-99	39.32	17.92	ND	21.40	06-25-99	83	9.0	1.4	0.5	2.5	220				1.11	NP
MW-3	08-25-99	39.32	17.79	ND	21.53	08-25-99	240	41	12	3.7	9.9	160				1.13	NP
MW-3	11-10-99	39.32	17.37	ND	21.95	11-10-99	620	100	9.7	4.1	21	150				0.24	NP
MW-3	02-09-00	39.32	15.77	ND	23.55	02-09-00	50	0.5	0.7	0.5	1	180				0.62	NP
MW-4	08-01-95	38.10	15.65	ND	22.45	08-01-95	50	0.5	0.5	0.5	0.5						
MW-4	12-14-95	38.10	15.35	ND	22.75	12-14-95	50	0.5	0.5	0.5	0.5	0					
MW-4	03-21-96	38.10	12.74	ND	25.36	03-21-96	50	0.5	0.5	0.5	0.5	0					
MW-4	05-24-96	38.10	14.03	ND	24.07	05-24-96	50	0.5	0.5	0.5	0.5	0					
MW-4	08-09-96	38.10	16.10	ND	22.00	08-09-96	50	0.5	0.5	0.5	0.5	0					
MW-4	11-06-96	38.10	17.00	ND	21.10	11-06-96	50	0.5	0.5	0.5	0.5	0					
MW-4	03-24-97	38.10	14.21	ND	23.89	03-24-97	50	0.5	0.5	0.5	0.5	0					
MW-4	05-27-97	38.10	15.38	ND	22.72	05-28-97	50	0.5	0.5	0.5	0.5	0					
MW-4	08-07-97	38.10	16.95	ND	21.15	08-07-97	50	0.5	0.5	0.5	0.5	0					
MW-4	11-10-97	38.10	17.53	ND	20.57	11-10-97	50	0.5	0.5	0.5	0.5	0					
MW-4	02-16-98	38.10	10.65	ND	27.45	02-16-98	50	0.5	0.5	0.5	0.5	0					
MW-4	04-15-98	38.10	12.20	ND	25.90	04-15-98	50	0.5	0.5	0.5	0.5	0					
MW-4	07-24-98	38.10	14.47	ND	23.63	07-24-98	50	0.5	0.5	0.5	0.5	0					
MW-4	10-19-98	38.10	16.20	ND	21.90	10-19-98	50	0.5	0.5	0.5	0.5	0					
MW-4	01-28-99	38.10	15.02	ND	23.08	01-28-99	340	52	5.5	0.5	74	31					

**Table 1**  
**Historical Groundwater Elevation and Analytical Data**  
**Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHC LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-4	06-25-99	38.10	15.57	ND	22.53	06-25-99	510	78	4.1	0.5	18	94	::	::	::	0.90	NP
MW-4	08-25-99	38.10	16.43	ND	21.67	08-25-99	660	130	21	6.4	39	110	::	::	::	1.01	NP
MW-4	11-10-99	38.10	16.02	ND	22.08	11-10-99	510	98	5.1	3.1	15	69	::	::	::	0.28	NP
MW-4	02-09-00	38.10	14.30	ND	23.80	02-09-00	<50	<0.5	0.9	<0.5	<1	55	::	::	::	0.67	NP
MW-5	03-21-96	37.21	12.60	ND	24.61	03-22-96	<50	<0.5	<0.5	<0.5	<0.5	82	::	::	::		
MW-5	05-24-96	37.21	13.71	ND	23.50	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	7	::	::	::		
MW-5	08-09-96	37.21	15.60	ND	21.61	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	8	::	::	::		
MW-5	11-06-96	37.21	16.36	ND	20.85	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	100	::	::	::		
MW-5	03-24-97	37.21	13.87	ND	23.34	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	460	::	::	::		
MW-5	05-27-97	37.21	14.71	ND	22.50	05-28-97	<100	<1	<1	<1	<1	120	::	::	::		
MW-5	08-07-97	37.21	16.90	ND	20.31	08-07-97	<250	<1.5	<2.5	<1.5	<1.5	250	::	::	::		
MW-5	11-10-97	37.21	16.88	ND	20.33	11-10-97	<1,000	<10	<10	<10	<10	770	::	::	::		
MW-5	02-16-98	37.21	10.56	ND	26.65	02-16-98	<200	<1	<1	<1	<1	230	::	::	::		
MW-5	04-15-98	37.21	12.20	ND	25.01	04-15-98	<500	<1	<1	<1	<1	900	::	::	::		
MW-5	07-24-98	37.21	14.20	ND	23.01	07-24-98	<500	<1	<1	<1	<1	570	::	::	::		
MW-5	10-19-98	37.21	15.74	ND	21.47	10-19-98	<250	<1	<1	<1	<1	300	::	::	::		
MW-5	01-28-99	37.21	14.60	ND	22.61	01-28-99	<500	8	<1	<1	<1	290	::	::	::		
MW-5	06-25-99	37.21	15.10	ND	22.11	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	1,300	::	::	::	0.76	NP
MW-5	08-25-99	37.21	15.91	ND	21.30	08-25-99	<50	<0.5	<0.5	<0.5	<0.5	6,700	::	::	::	0.98	NP
MW-5	11-10-99	37.21	15.52	ND	21.69	11-10-99	130	2.0	7.0	1.3	21	5,000	::	::	::	0.21	NP
MW-5	02-09-00	37.21	14.03	ND	23.18	02-09-00	92	<0.5	0.8	<0.5	1.0	7,900	::	::	::	0.51	NP
MW-6	03-21-96	37.11	11.55	ND	25.56	03-22-96	<50	<0.5	1.9	<0.5	<0.5	<1	::	::	::		
MW-6	05-24-96	37.11	12.80	ND	24.31	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	6	::	::	::		

**Table 1**  
**Historical Groundwater Elevation and Analytical Data**  
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**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-6	08-09-96	37.11	Not surveyed			08-09-96	Not sampled: Car parked on well										
MW-6	11-06-96	37.11	Not surveyed			11-06-96	Not sampled: Car parked on well										
MW-6	03-24-97	37.11	13.06	ND	24.05	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	Δ	::	::	::		
MW-6	05-27-97	37.11	14.30	ND	22.81	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	Δ	::	::	::		
MW-6	08-07-97	37.11	16.40	ND	20.71	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	Δ	::	::	::		
MW-6	11-10-97	37.11	16.53	ND	20.58	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	Δ	::	::	::		
MW-6	02-16-98	37.11	Not surveyed			02-16-98	Not sampled: Car parked on well										
MW-6	04-15-98	37.11	10.95	ND	26.16	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	Δ	::	::	::		
MW-6	07-24-98	37.11	13.30	ND	23.81	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	Δ	::	::	::		
MW-6	10-19-98	37.11	Not surveyed			10-19-98	Not sampled: Car parked on well										
MW-6	01-28-99	37.11	13.92	ND	23.19	01-28-99	<50	<0.5	<0.5	<0.5	<0.5	Δ	::	::	::		
MW-6	06-25-99	37.11	15.47	ND	21.64	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	Δ	::	::	::	0.74	NP
MW-6	08-25-99	37.11	15.39	ND	21.72	08-25-99	<50	<0.5	3.4	0.6	3.7	Δ	::	::	::	0.92	NP
MW-6	11-10-99	37.11	14.92	ND	22.19	11-10-99	<50	<0.5	<0.5	<0.5	<1	Δ	::	::	::	0.31	NP
MW-6	02-09-00	37.11	13.30	ND	23.81	02-09-00	<50	<0.5	0.9	<0.5	1.3	Δ	::	::	::	0.79	NP
MW-7	03-21-96	38.68	13.32	ND	25.36	03-22-96	32,000	870	450	970	4,900	280	::	::	::		
MW-7	05-24-96	38.68	14.58	ND	24.10	05-24-96	22,000	570	40	42	1,900	<200[2]	::	::	::		
MW-7	08-09-96	38.68	15.33	ND	23.35	08-09-96	14,000	390	<10	180	470	<200[2]	::	::	::		
MW-7	11-06-96	38.68	16.95	ND	21.73	11-06-96	9,500	440	<10	210	150	<100[2]	::	::	::		
MW-7	03-24-97	38.68	14.65	ND	24.03	03-24-97	6,400	420	<10	260	13	480	::	::	::		
MW-7	05-27-97	38.68	15.58	ND	23.10	05-28-97	5,000	420	<5	230	10	460	::	::	::		
MW-7	08-07-97	38.68	17.10	ND	21.58	08-07-97	3,900	350	<5	200	10	330	::	::	::		
MW-7	11-10-97	38.68	18.05	ND	20.63	11-10-97	5,600	590	10	370	43	540	::	::	::		
MW-7	02-16-98	38.68	12.03	ND	26.65	02-16-98	<5,000	390	<50	<50	61	4,300	::	::	::		

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Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MIBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-7	04-15-98	38.68	13.02	ND	25.66	04-15-98	<10,000	<100	<100	<100	<100	8,900	..	..	..		
MW-7	07-24-98	38.68	14.18	ND	24.50	07-24-98	5,800	180	<50	74	<50	4,200	..	..	..		
MW-7	10-19-98	38.68	15.99	ND	22.69	10-19-98	<2,500	54	<25	72	<25	3,000	..	..	..		
MW-7	01-28-99	38.68	15.69	ND	22.99	01-28-99	4,500	560	250	<50	94	6,200	..	..	..		
MW-7	06-25-99	38.68	15.36	ND	23.32	06-25-99	3,900	520	160	46	100	45,000	63,000[3]	..	..	0.56	NP
MW-7	08-25-99	38.68	16.71	ND	21.97	08-25-99	3,400	730	77	51	110	62,000	76,000[3]	..	..	0.90	NP
MW-7	11-10-99	38.68	16.76	ND	21.92	11-10-99	15,000	340	19	13	20	55,000	91,000[3]	..	..	0.37	NP
MW-7	02-09-00	38.68	14.45	0.03	24.25 [1]	02-09-00	Not sampled: free product present										

ft-MSL: elevation in feet, relative to mean sea level  
 TPHG: total petroleum hydrocarbons as gasoline, California DHS LUFT Method  
 MTBE: Methyl tert-butyl ether  
 TRPH: total recoverable petroleum hydrocarbons  
 TPHD: total petroleum hydrocarbons as diesel, California DHS LUFT Method  
 \*: EPA method 8020 prior to 11/10/99  
 EPA: United States Environmental Protection Agency  
 µg/L: micrograms per liter  
 mg/L: milligrams per liter  
 ND: none detected  
 ..: not available or not analyzed  
 <: less than laboratory detection limit stated to the right  
 [1]: [corrected elevation (Z')] = Z + (h \* 0.73) where: Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water  
 [2]: chromatogram fingerprint is not characteristic of diesel  
 [3]: also analyzed for fuel oxygenates  
 [4]: this value is suspected to be erroneous based on subsequent check by bailer (following day). See discussion

**Table 2**  
**Groundwater Flow Direction and Gradient**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Date Measured	Average Flow Direction	Average Hydraulic Gradient
08-01-95	NR	NR
12-14-95	West	0.002
03-21-96	West-Southwest	0.005
05-24-96	West	0.003
08-09-96	West-Northwest	0.01
11-06-96	West-Northwest	0.007
03-24-97	West	0.005
05-27-97	North-Northwest	0.006
08-07-97	West	0.009
11-10-97	West	0.002
02-16-98	South-Southwest	0.013
04-15-98	West-Southwest	0.014
07-24-98	Northwest	0.01
10-19-98	West	0.008
01-28-99	Southwest	0.01
06-25-99	North-Northwest	0.017
08-25-99	West-Northwest	0.005
11-10-99	West-Southwest	0.002
02-09-00	West-Northwest	0.015

NR: not recorded

**ATTACHMENT D**

**ERROR CHECK REPORTS AND EDF/GEOWELL SUBMITTAL  
CONFIRMATIONS**



## Electronic Submittal Information

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### SUCCESSFUL EDF CHECK - NO ERRORS

<u>ORGANIZATION NAME:</u>	URS Corporation-Oakland Office
<u>USER NAME:</u>	URSCORP-OAKLAND
<u>DATE CHECKED:</u>	2/28/2006 10:41:52 AM
<u>GLOBAL ID:</u>	T0600101764
<u>FILE UPLOADED:</u>	ARCO#2111-EDF- MPA1160.zip

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When you complete the submittal process, you will be given a confirmation number for your submittal.

Click [here](#) to view the detections report for this upload.

<b>ARCO # 02111</b> 1156 DAVIS ST SAN LEANDRO, CA 94577	<b><u>Regional Board - Case #: 01-1903</u></b> SAN FRANCISCO BAY RWQCB (REGION 2) - (RDB) <b><u>Local Agency (lead agency) - Case #: 744</u></b> ALAMEDA COUNTY LOP - (AG)
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#### **SAMPLE DETECTIONS REPORT**

# FIELD POINTS SAMPLED	7
# FIELD POINTS WITH DETECTIONS	7
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	5
SAMPLE MATRIX TYPES	WATER

#### **METHOD QA/QC REPORT**

METHODS USED	8260FA
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- 8260FA REQUIRES DBFM TO BE TESTED	
- 8260FA REQUIRES BR4FBZ TO BE TESTED	
- 8260FA REQUIRES BZMED8 TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

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

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

#### **WATER SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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**Confirmation Number:** 7051611244  
**Date/Time of Submittal:** 2/28/2006 10:42:50 AM  
**Facility Global ID:** T0600101764  
**Facility Name:** ARCO # 02111  
**Submittal Title:** 1Q 2006 QMR BP/ARCO 2111 EDF  
**Submittal Type:** GW Monitoring Report

Click [here](#) to view the detections report for this upload.

<b>ARCO # 02111</b> 1156 DAVIS ST SAN LEANDRO, CA 94577	<b>Regional Board - Case #: 01-1903</b> SAN FRANCISCO BAY RWQCB (REGION 2) - (RDB) <b>Local Agency (lead agency) - Case #: 744</b> ALAMEDA COUNTY LOP - (AG)
---	---

CONF #	TITLE	QUARTER
7051611244	1Q 2006 QMR BP/ARCO 2111 EDF	Q1 2006
SUBMITTED BY	SUBMIT DATE	STATUS
Srijesh Thapa	2/28/2006	PENDING REVIEW

**SAMPLE DETECTIONS REPORT**

# FIELD POINTS SAMPLED	7
# FIELD POINTS WITH DETECTIONS	7
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	5
SAMPLE MATRIX TYPES	WATER

**METHOD QA/QC REPORT**

METHODS USED	8260FA
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- 8260FA REQUIRES DBFM TO BE TESTED	
- 8260FA REQUIRES BR4FBZ TO BE TESTED	
- 8260FA REQUIRES BZMED8 TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

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

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

**WATER SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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<u>ORGANIZATION NAME:</u>	URS Corporation-Oakland Office
<u>USER NAME:</u>	URSCORP-OAKLAND
<u>DATE CHECKED:</u>	2/28/2006 10:39:04 AM

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**Submittal Title:** 1Q 2006 QMR BP/ARCO 2111  
GEOWELL

**Submittal Date/Time:** 2/28/2006 10:40:40 AM

**Confirmation**  
**Number:** 2860323846

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