



Atlantic Richfield Company
(a BP affiliated company)

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March 29, 2005

**Re: First Quarter 2005 Groundwater Monitoring Report
ARCO Service Station #2169
889 West Grand Avenue
Oakland, California**

Alameda County
APR 04 2005
Environmental Health

3

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 29, 2005

Mr. Robert Schultz
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Re: First Quarter 2005 Groundwater Monitoring Report
ARCO Service Station #2169
889 West Grand Avenue
Oakland, California**

Alameda County
APR 04 2005
Environmental Health

Dear Mr. Schultz:

On behalf of Atlantic Richfield Company, a BP affiliated company, URS Corporation (URS) is submitting the *First Quarter 2005 Groundwater Monitoring Report* for ARCO Service Station #2169, located at 889 West Grand Avenue, Oakland, California.

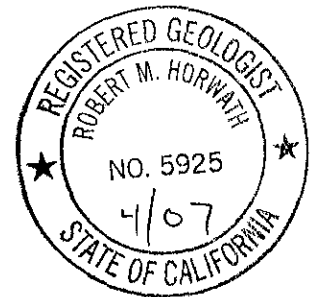
If you have any questions regarding this submission, please call at (510) 874-3280.

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

Robert Horwath, R.G.
Portfolio Manager



Enclosure: First Quarter 2005 Groundwater Monitoring Report

cc: Mr. Paul Supple, Atlantic Richfield Company (RM), electronic copy uploaded to ENFOS

R E P O R T

**FIRST QUARTER 2005
GROUNDWATER MONITORING
REPORT**

ARCO SERVICE STATION #2169
889 WEST GRAND AVENUE
OAKLAND, CALIFORNIA

Alameda County
APR 04 2005
Environmental Health

Prepared for
RM

March 29, 2005

URS

URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

Date: March 29, 2005
Quarter: 1Q 05

RM QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 2169 Address: 889 West Grand Avenue, Oakland, California
RM Environmental Business Manager: Paul Supple
Consulting Co./Contact Person: URS Corporation / Scott Robinson
Primary Agency: Alameda County Environmental Health (ACEH)
Case No.: 3793

WORK PERFORMED THIS QUARTER (First – 2005):

1. Prepared and submitted Fourth Quarter 2004 Groundwater Monitoring Report.
2. Performed first quarter 2005 groundwater monitoring event on February 2, 2005.
3. Prepared and submitted this First Quarter 2005 Groundwater Monitoring Report.

WORK PROPOSED FOR NEXT QUARTER (Second – 2005):

1. Perform second quarter 2005 groundwater monitoring event.
2. Prepare and submit Second Quarter 2005 Groundwater Monitoring Report.

SITE SUMMARY:

Current Phase of Project: GW monitoring/sampling
Frequency of Groundwater Sampling: Annual: (3rd Quarter): A-2, AR-1, AR-2, ADR-2
Quarterly: A-1, A-5, A-6 and ADR-1
Frequency of Groundwater Monitoring: Quarterly
Is Free Product (FP) Present On-Site: No
FP Recovered this Quarter: None- Soil Vapor Extraction System shut-down in December 2001.
Cumulative FP Recovered to Date: 4.8 gallons, wells ADR-1 and ADR-2
Bulk Soil Removed This Quarter: None
Bulk Soil Removed to Date: 2,196 cubic yards of TPH impacted soil
Current Remediation Techniques: None
Approximate Depth to Groundwater: 8.37 (A-5) to 10.42 (A-3) feet
Groundwater Gradient (direction): Northwest to Southwest
Groundwater Gradient (magnitude): 0.005 feet per foot

DISCUSSION:

Gasoline range organics were detected at or above the laboratory reporting limit in three of the four wells sampled this quarter at concentrations ranging from 56 micrograms per liter ($\mu\text{g/L}$) (A-1) to 220 $\mu\text{g/L}$ (A-5). Benzene was detected at or above the laboratory reporting limit in two wells at concentrations of 14 $\mu\text{g/L}$ (A-1) and 31 $\mu\text{g/L}$ (A-5). Xylenes were detected at or above the laboratory reporting limit in two wells at concentrations of 0.55 $\mu\text{g/L}$ (A-1) and 13 $\mu\text{g/L}$ (A-5). Toluene and ethylbenzene were detected at or above the laboratory reporting limit in one well (A-5) at respective concentrations of 2.3 $\mu\text{g/L}$ and 10 $\mu\text{g/L}$. Methyl tert-butyl ether was detected at or above the laboratory reporting limit in three wells at concentrations ranging from 3.4 $\mu\text{g/L}$ (ADR-1) to 14 $\mu\text{g/L}$ (A-6). Tert-amyl methyl ether (TAME) was detected at or above the laboratory reporting limit in one well at a concentration of 0.91 $\mu\text{g/L}$ (A-6).

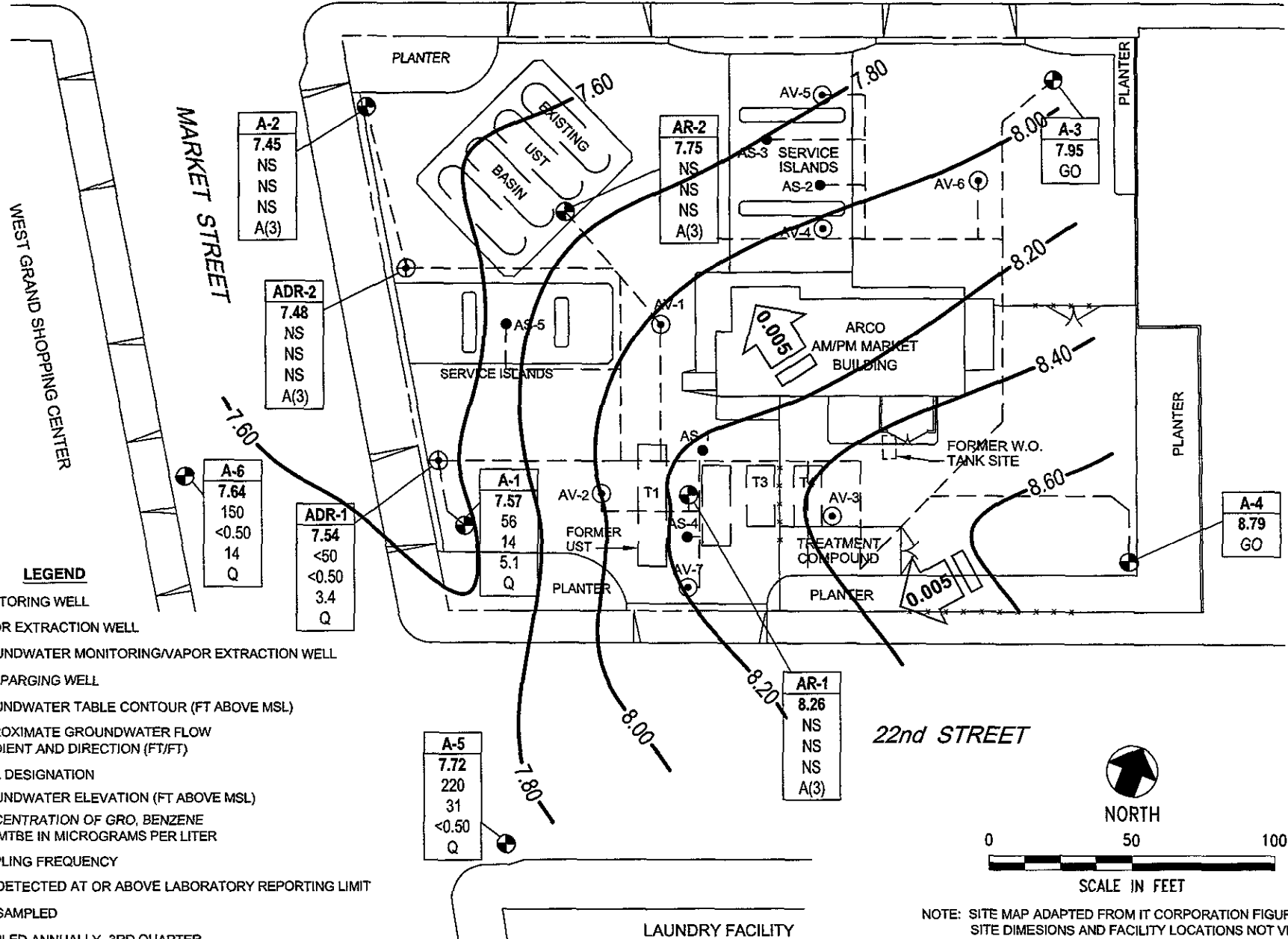
RECOMMENDATIONS:

Due to the consistently low to non-detections at or above the laboratory limits, URS recommends reducing the sampling frequency from quarterly to semi-annual for wells A-1, A-5, A-6, and ADR-1.

ATTACHMENTS:

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – February 2, 2005
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Fuel Additive Analytical Data
- Table 3 - Groundwater Flow Direction and Gradient
- 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

WEST GRAND AVENUE

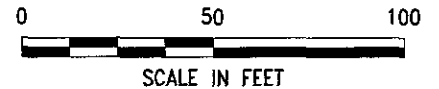


LEGEND

- MONITORING WELL
- VAPOR EXTRACTION WELL
- GROUNDWATER MONITORING/VAPOR EXTRACTION WELL
- AIR SPARGING WELL
- 8.00 GROUNDWATER TABLE CONTOUR (FT ABOVE MSL)
- APPROXIMATE GROUNDWATER FLOW GRADIENT AND DIRECTION (FT/FT)

Well	ELEV	GRO	Benzene	MTBE	A/Q
WELL DESIGNATION	GROUNDWATER ELEVATION (FT ABOVE MSL)	CONCENTRATION OF GRO, BENZENE AND MTBE IN MICROGRAMS PER LITER			SAMPLING FREQUENCY
<	NS	A(3)	GO	Q	NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
	NS				NOT SAMPLED
	A(3)				SAMPLED ANNUALLY, 3RD QUARTER
	GO				GAUGE ONLY
	Q				SAMPLED QUARTERLY
*					NOT INCLUDED IN CONTOURING
---					REMEDIATION PIPING

22nd STREET



NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES
 SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

URS	Project No. 38487180	GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP	FIGURE 1
	ARCO Service Station 2169 889 West Grand Avenue Oakland, California			First Quarter 2005 (February 2, 2005)

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #2169
889 W. Grand Ave., Oakland, 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
A-1	6/26/2000	--		14.16	9.00	25.00	10.75	3.41	--	--	--	--	--	--	--	--
	7/20/2000	--		14.16	9.00	25.00	11.01	3.15	3,900	1,100	28	12	46	25	--	--
	9/19/2000	--		14.16	9.00	25.00	11.26	2.90	4,800	2,400	27	20	57	32	--	--
	12/26/2000	--		14.16	9.00	25.00	10.96	3.20	429	104	2.85	12.2	9.91	18.7	--	--
	3/20/2001	--		14.16	9.00	25.00	9.59	4.57	<500	13.9	7.12	13.9	23.2	<25	--	--
	6/12/2001	--		14.16	9.00	25.00	10.83	3.33	140	2.2	<0.5	8.7	9.2	25	--	--
	9/23/2001	--		14.16	9.00	25.00	11.43	2.73	<50	<0.50	<0.50	<0.50	<0.50	4.5	--	--
	12/28/2001	--		14.16	9.00	25.00	8.66	5.50	930	250	7.6	21	13	<25	--	--
	3/21/2002	--		14.16	9.00	25.00	8.43	5.73	<50	<0.5	<0.5	<0.5	1.2	<2.5	--	--
	4/17/2002	--		14.16	9.00	25.00	9.36	4.80	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	8/14/2002	--	b	14.16	9.00	25.00	11.12	3.04	170	8.4	<0.5	<0.5	1.4	4.9	5.7	7.4
	11/27/2002	--	b	14.16	9.00	25.00	11.11	3.05	98	2.9	0.75	<0.5	<0.5	6.4	1.6	7.0
	2/12/2003	--	d	14.16	9.00	25.00	10.10	4.06	73	9.3	<0.50	1	0.53	2.9	2.1	7.2
	5/22/2003	--		14.16	9.00	25.00	10.18	3.98	400	88	1.6	4.6	11	4.9	1.3	7.4
	7/23/2003	--		14.16	9.00	25.00	10.85	3.31	140	3.2	<0.50	<0.50	0.56	10	10.8	7.4
	11/13/2003	P	f	14.16	9.00	25.00	11.35	2.81	<50	0.64	<0.50	<0.50	<0.50	4.2	4.3	7.75
	02/16/2004	P	f, i	16.75	9.00	25.00	9.65	7.10	99	18	<0.50	1.2	0.96	3.2	7.2	7.6
	05/06/2004	P		16.75	9.00	25.00	10.57	6.18	<50	0.73	<0.50	<0.50	<0.50	1.9	1.23	6.93
	09/02/2004	P		16.75	9.00	25.00	11.05	5.70	64	1.1	<0.50	<0.50	<0.50	1.7	12.1	8.7
	11/29/2004	P		16.75	9.00	25.00	10.50	6.25	<50	1.4	<0.50	<0.50	<0.50	<0.50	0.62	7.0
	02/02/2005	P		16.75	9.00	25.00	9.18	7.57	56	14	<0.50	<0.50	0.55	5.1	3.2	7.2
A-2	6/26/2000	--		14.55	10.00	25.00	11.27	3.28	--	--	--	--	--	--	--	--
	7/20/2000	--		14.55	10.00	25.00	11.52	3.03	<50	<0.5	<0.5	<0.5	<1.0	<3	--	--
	9/19/2000	--		14.55	10.00	25.00	11.63	2.92	--	--	--	--	--	--	--	--
	12/26/2000	--		14.55	10.00	25.00	11.44	3.11	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/20/2001	--		14.55	10.00	25.00	10.08	4.47	--	--	--	--	--	--	--	--
	6/12/2001	--		14.55	10.00	25.00	11.35	3.20	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	9/23/2001	--		14.55	10.00	25.00	11.92	2.63	--	--	--	--	--	--	--	--
	12/28/2001	--		14.55	10.00	25.00	9.31	5.24	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/21/2002	--		14.55	10.00	25.00	9.05	5.50	--	--	--	--	--	--	--	--
	4/17/2002	--		14.55	10.00	25.00	9.88	4.67	52	<0.5	<0.5	<0.5	<0.5	26	--	--
	8/14/2002	--	c	14.55	10.00	25.00	11.62	2.93	<50	<0.5	<0.5	<0.5	1.2	<2.5	3.7	7.2
	11/27/2002	--		14.55	10.00	25.00	11.56	2.99	--	--	--	--	--	--	--	--

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889 W. Grand Ave., Oakland, 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
A-2	2/12/2003	--	d	14.55	10.00	25.00	10.75	3.80	<50	<0.50	<0.50	<0.50	<0.50	12	2.9	7.1
	5/22/2003	--		14.55	10.00	25.00	10.72	3.83	--	--	--	--	--	--	--	--
	7/23/2003	--		14.55	10.00	25.00	11.39	3.16	<50	<0.50	<0.50	<0.50	<0.50	2.6	1.3	6.8
	11/13/2003	--		14.55	10.00	25.00	11.60	2.95	--	--	--	--	--	--	--	--
	02/16/2004	--	i	17.18	10.00	25.00	10.27	6.91	--	--	--	--	--	--	--	--
	05/06/2004	--		17.18	10.00	25.00	11.05	6.13	--	--	--	--	--	--	--	--
	09/02/2004	P		17.18	10.00	25.00	11.45	5.73	130	<0.50	<0.50	<0.50	<0.50	2.5	5.1	7.4
	11/29/2004	--		17.18	10.00	25.00	11.12	6.06	--	--	--	--	--	--	--	--
	02/02/2005	--		17.18	10.00	25.00	9.73	7.45	--	--	--	--	--	--	--	--
A-3	6/26/2000	--		15.75	9.00	29.50	11.98	3.77	--	--	--	--	--	--	--	--
	7/20/2000	--		15.75	9.00	29.50	12.21	3.54	--	--	--	--	--	--	--	--
	9/19/2000	--		15.75	9.00	29.50	12.50	3.25	--	--	--	--	--	--	--	--
	12/26/2000	--		15.75	9.00	29.50	12.17	3.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/20/2001	--		15.75	9.00	29.50	10.70	5.05	--	--	--	--	--	--	--	--
	6/12/2001	--		15.75	9.00	29.50	12.09	3.66	--	--	--	--	--	--	--	--
	9/23/2001	--		15.75	9.00	29.50	12.65	3.10	--	--	--	--	--	--	--	--
	12/28/2001	--		15.75	9.00	29.50	9.94	5.81	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/21/2002	--		15.75	9.00	29.50	9.69	6.06	--	--	--	--	--	--	--	--
	4/17/2002	--		15.75	9.00	29.50	10.61	5.14	--	--	--	--	--	--	--	--
	8/14/2002	--		15.75	9.00	29.50	12.27	3.48	--	--	--	--	--	--	--	--
	11/27/2002	--		15.75	9.00	29.50	12.22	3.53	--	--	--	--	--	--	--	--
	2/12/2003	--	d	15.75	9.00	29.50	11.40	4.35	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	6.9
	5/22/2003	--		15.75	9.00	29.50	11.42	4.33	--	--	--	--	--	--	--	--
	7/23/2003	--		15.75	9.00	29.50	12.00	3.75	--	--	--	--	--	--	--	--
	02/16/2004	--	g, i	18.37	9.00	29.50	10.94	7.43	--	--	--	--	--	--	--	--
	05/06/2004	--		18.37	9.00	29.50	11.75	6.62	--	--	--	--	--	--	--	--
09/02/2004	--		18.37	9.00	29.50	12.15	6.22	--	--	--	--	--	--	--	--	
11/29/2004	--		18.37	9.00	29.50	11.87	6.50	--	--	--	--	--	--	--	--	
02/02/2005	--		18.37	9.00	29.50	10.42	7.95	--	--	--	--	--	--	--	--	
A-4	6/26/2000	--		15.25	8.00	28.00	10.99	4.26	--	--	--	--	--	--	--	--
	7/20/2000	--		15.25	8.00	28.00	11.16	4.09	--	--	--	--	--	--	--	--
	9/19/2000	--		15.25	8.00	28.00	11.97	3.28	--	--	--	--	--	--	--	--
	12/26/2000	--		15.25	8.00	28.00	11.19	4.06	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--

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A-4	3/20/2001	--		15.25	8.00	28.00	9.81	5.44	--	--	--	--	--	--	--	--
	6/12/2001	--		15.25	8.00	28.00	11.12	4.13	--	--	--	--	--	--	--	--
	9/23/2001	--		15.25	8.00	28.00	11.63	3.62	--	--	--	--	--	--	--	--
	12/28/2001	--		15.25	8.00	28.00	8.41	6.84	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/21/2002	--		15.25	8.00	28.00	8.63	6.62	--	--	--	--	--	--	--	--
	4/17/2002	--		15.25	8.00	28.00	9.68	5.57	--	--	--	--	--	--	--	--
	8/14/2002	--		15.25	8.00	28.00	11.31	3.94	--	--	--	--	--	--	--	--
	11/27/2002	--		15.25	8.00	28.00	11.25	4.00	--	--	--	--	--	--	--	--
	2/12/2003	--	d	15.25	8.00	28.00	10.37	4.88	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.9	7.1
	5/22/2003	--		15.25	8.00	28.00	10.42	4.83	--	--	--	--	--	--	--	--
	7/23/2003	--		15.25	8.00	28.00	11.02	4.23	--	--	--	--	--	--	--	--
	02/16/2004	--	g, i	18.01	8.00	28.00	9.65	8.36	--	--	--	--	--	--	--	--
	05/06/2004	--		18.01	8.00	28.00	10.68	7.33	--	--	--	--	--	--	--	--
09/02/2004	--		18.01	8.00	28.00	10.83	7.18	--	--	--	--	--	--	--	--	
11/29/2004	--		18.01	8.00	28.00	10.50	7.51	--	--	--	--	--	--	--	--	
02/02/2005	--		18.01	8.00	28.00	9.22	8.79	--	--	--	--	--	--	--	--	
A-5	6/26/2000	--		13.51	8.00	30.00	10.04	3.47	--	--	--	--	--	--	--	--
	7/20/2000	--		13.51	8.00	30.00	10.31	3.20	730	140	11	<0.5	8.9	3	--	--
	9/19/2000	--		13.51	8.00	30.00	10.55	2.96	160	13	<0.5	2.8	1.9	<3	--	--
	12/26/2000	--		13.51	8.00	30.00	10.37	3.14	8,120	465	108	659	1,450	<250	--	--
	3/20/2001	--		13.51	8.00	30.00	8.81	4.70	7,990	1,110	473	611	1,580	<250	--	--
	6/12/2001	--		13.51	8.00	30.00	10.13	3.38	450	91	18	35	95	<5.0	--	--
	9/23/2001	--		13.51	8.00	30.00	10.80	2.71	110	20	<0.5	5	5	2.7	--	--
	12/28/2001	--		13.51	8.00	30.00	8.17	5.34	320	24	2	20	27	5	--	--
	3/21/2002	--		13.51	8.00	30.00	7.78	5.73	2,500	420	85	130	350	31	--	--
	4/17/2002	--		13.51	8.00	30.00	8.68	4.83	1,300	190	36	67	210	<25	--	--
	8/14/2002	--	b	13.51	8.00	30.00	10.41	3.10	840	150	<5.0	68	41	<25	1.4	6.8
	11/27/2002	--	b	13.51	8.00	30.00	10.50	3.01	300	26	2.3	17	6	<0.5	1.16	7.2
	2/12/2003	--	d	13.51	8.00	30.00	10.81	2.70	<500	74	7	34	45	<5.0	1.0	7.3
	5/22/2003	--		13.51	8.00	30.00	9.46	4.05	500	100	9	28	47	<5.0	1.0	7.6
	7/23/2003	--		13.51	8.00	30.00	10.29	3.22	900	100	5.7	65	57	<5.0	4.5	8.4
11/13/2003	NP	f	13.51	8.00	30.00	11.24	2.27	1,800	210	5.1	190	140	<5.0	4.3	7.32	
02/16/2004	NP	h, i	16.09	8.00	30.00	9.45	6.64	680	52	15	50	77	<0.50	5.0	7.8	

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #2169
889 W. Grand Ave., Oakland, 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)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
A-5	05/06/2004	P		16.09	8.00	30.00	10.28	5.81	1,500	140	13	72	110	<2.5	1.03	6.93
	09/02/2004	NP		16.09	8.00	30.00	10.78	5.31	690	69	1.3	42	35	<1.0	1.3	7.1
	11/29/2004	NP		16.09	8.00	30.00	10.05	6.04	<5,000	360	<50	190	290	<50	1.0	7.0
	02/02/2005	NP		16.09	8.00	30.00	8.37	7.72	220	31	2.3	10	13	<0.50	0.6	7.4
A-6	6/26/2000	--		13.51	8.00	28.50	10.09	3.42	--	--	--	--	--	--	--	--
	7/20/2000	--		13.51	8.00	28.50	10.91	2.60	170	<0.5	<0.5	0.6	2	6	--	--
	9/19/2000	--		13.51	8.00	28.50	11.27	2.24	<50	<0.5	<0.5	<0.5	<1.0	6	--	--
	12/26/2000	--		13.51	8.00	28.50	10.65	2.86	56.2	<0.5	<0.5	<0.5	<0.5	8.17	--	--
	3/20/2001	--		13.51	8.00	28.50	8.72	4.79	216	<0.5	<0.5	<0.5	1.8	19.9	--	--
	6/12/2001	--		13.51	8.00	28.50	10.80	2.71	80	0.62	<0.5	<0.5	<0.5	15	--	--
	9/23/2001	--		13.51	8.00	28.50	10.79	2.72	450	1.7	1.9	2.3	3.3	53	--	--
	12/28/2001	--		13.51	8.00	28.50	8.05	5.46	270	0.98	3.5	0.77	1.4	26	--	--
	3/21/2002	--		13.51	8.00	28.50	7.83	5.68	130	<0.5	<0.5	<0.5	<0.5	19	--	--
	4/17/2002	--		13.51	8.00	28.50	8.73	4.78	<50	<0.5	<0.5	<0.5	<0.5	16	--	--
	8/14/2002	--	b	13.51	8.00	28.50	10.43	3.08	980	4.8	2.6	2	4.9	75	1.5	7.1
	11/27/2002	--	b	13.51	8.00	28.50	10.47	3.04	280	<0.5	0.74	<0.5	<0.5	16	0.9	6.9
	2/12/2003	--	d	13.51	8.00	28.50	10.44	3.07	51	<0.50	<0.50	<0.50	<0.50	9.9	0.8	7.1
	5/22/2003	--		13.51	8.00	28.50	9.43	4.08	<50	<0.50	<0.50	<0.50	<0.50	11	1.2	8.2
	7/23/2003	--		13.51	8.00	28.50	10.27	3.24	120	<0.50	<0.50	<0.50	<0.50	14	>20	9.6
	11/13/2003	NP	f	13.51	8.00	28.50	11.20	2.31	<50	<0.50	<0.50	<0.50	<0.50	2.3	6.2	9.0
	02/16/2004	NP	h, i	16.10	8.00	28.50	9.76	6.34	50	<0.50	<0.50	<0.50	<0.50	3.9	6.5	8.3
	05/06/2004	P		16.10	8.00	28.50	10.03	6.07	110	<0.50	<0.50	<0.50	<0.50	7.1	1.01	7.02
	09/02/2004	NP		16.10	8.00	28.50	10.47	5.63	56	<0.50	<0.50	<0.50	<0.50	4.4	3.2	7.4
	11/29/2004	NP		16.10	8.00	28.50	9.99	6.11	<50	<0.50	<0.50	<0.50	<0.50	2.9	0.92	6.9
02/02/2005	NP		16.10	8.00	28.50	8.46	7.64	150	<0.50	<0.50	<0.50	<0.50	14	0.5	7.4	
ADR-1	6/26/2000	--		13.95	5.00	22.00	10.55	3.40	--	--	--	--	--	--	--	--
	7/20/2000	--		13.95	5.00	22.00	10.85	3.10	180	29	<0.5	0.8	<1.0	22	--	--
	9/19/2000	--		13.95	5.00	22.00	11.08	2.87	120	7.4	<0.5	1.2	<1.0	22	--	--
	12/26/2000	--		13.95	5.00	22.00	10.93	3.02	<50	1.29	<0.5	<0.5	<0.5	14.7	--	--
	3/20/2001	--		13.95	5.00	22.00	9.32	4.63	225	23.4	<0.5	8.71	4.13	10.8	--	--
	6/12/2001	--		13.95	5.00	22.00	10.65	3.30	250	23	0.5	13	4.2	7.5	--	--
	9/23/2001	--		13.95	5.00	22.00	11.25	2.70	<50	1.4	<0.5	<0.5	0.57	2.8	--	--
	12/28/2001	--		13.95	5.00	22.00	8.43	5.52	250	16	<0.5	1.2	4.1	6.8	--	--

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #2169
889 W. Grand Ave., Oakland, 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)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
ADR-1	3/21/2002	--		13.95	5.00	22.00	8.27	5.68	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	4/17/2002	--		13.95	5.00	22.00	9.17	4.78	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	8/14/2002	--		13.95	5.00	22.00	11.88	2.07	<50	1.1	<0.5	<0.5	<0.5	<2.5	3.4	6.7
	11/27/2002	--		13.95	5.00	22.00	10.91	3.04	<50	0.54	<0.5	<0.5	<0.5	1.1	1.8	6.8
	2/12/2003	--	d	13.95	5.00	22.00	9.95	4.00	<50	<0.50	<0.50	<0.50	<0.50	0.73	1.9	7.2
	5/22/2003	--		13.95	5.00	22.00	9.86	4.09	<50	0.96	<0.50	<0.50	<0.50	3.5	1.2	7.3
	7/23/2003	--		13.95	5.00	22.00	10.59	3.36	<50	2.5	<0.50	0.56	<0.50	4	>20	9.4
	11/13/2003	--	f	13.95	5.00	22.00	11.15	2.80	<50	0.60	<0.50	<0.50	<0.50	1.6	8.5	8.2
	02/16/2004	NP	f, i	16.56	5.00	22.00	9.43	7.13	<50	<0.50	<0.50	<0.50	<0.50	1.6	5.5	9.6
	05/07/2004	NP		16.56	5.00	22.00	10.41	6.15	<500	5.3	<5.0	<5.0	<5.0	<5.0	1.72	7.0
	09/02/2004	NP		16.56	5.00	22.00	10.73	5.83	<50	<0.50	<0.50	<0.50	<0.50	0.84	18.1	8.4
	11/29/2004	NP		16.56	5.00	22.00	10.30	6.26	<50	3.0	<0.50	<0.50	<0.50	<0.50	0.77	6.9
02/02/2005	NP		16.56	5.00	22.00	9.02	7.54	<50	<0.50	<0.50	<0.50	<0.50	3.4	0.5	7.5	
ADR-2	6/26/2000	--		14.64	5.00	22.00	11.22	3.42	--	--	--	--	--	--	--	--
	7/20/2000	--		14.64	5.00	22.00	11.60	3.04	12,000	410	2.5	540	720	23	--	--
	9/19/2000	--		14.64	5.00	22.00	11.81	2.83	1,400	530	5	680	740	34	--	--
	12/26/2000	--		14.64	5.00	22.00	11.52	3.12	901	26.6	<5.0	21.4	32.5	32.8	--	--
	3/20/2001	--	j	14.64	5.00	22.00	10.10	4.54	--	--	--	--	--	--	--	--
	6/12/2001	--	j	14.64	5.00	22.00	11.41	3.23	--	--	--	--	--	--	--	--
	9/23/2001	--		14.64	5.00	22.00	11.98	2.66	5,300	370	<5.0	550	96	60	--	--
	12/28/2001	--		14.64	5.00	22.00	9.48	5.16	2,600	190	<5.0	160	29	61	--	--
	3/21/2002	--		14.64	5.00	22.00	9.10	5.54	180	6	<0.5	4.5	3.2	15	--	--
	4/17/2002	--		14.64	5.00	22.00	9.93	4.71	730	86	<0.5	13	<0.5	<25	--	--
	8/14/2002	--	b	14.64	5.00	22.00	12.09	2.55	1,300	170	<10	100	47	<50	0.9	7.0
	11/27/2002	--	b	14.64	5.00	22.00	11.66	2.98	1,800	240	3.1	120	14	74	0.6	6.9
	2/12/2003	--	d	14.64	5.00	22.00	10.74	3.90	760	120	<5.0	15	5.2	22	1.3	7.1
	5/22/2003	--		14.64	5.00	22.00	10.67	3.97	520	110	<5.0	7.1	<5.0	9.7	0.7	7.6
	7/23/2003	--		14.64	5.00	22.00	11.38	3.26	140	2.8	<0.50	5	0.98	8.4	>20	9.4
	02/16/2004	--	f, i	17.24	5.00	22.00	10.26	6.98	--	--	--	--	--	--	--	--
	05/06/2004	--		17.24	5.00	22.00	11.05	6.19	--	--	--	--	--	--	--	--
	09/02/2004	P		17.24	5.00	22.00	11.50	5.74	<500	67	<5.0	71	12	5.6	0.7	7.4
11/29/2004	--		17.24	5.00	22.00	11.20	6.04	--	--	--	--	--	--	--	--	
02/02/2005	--		17.24	5.00	22.00	9.76	7.48	--	--	--	--	--	--	--	--	

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #2169
889 W. Grand Ave., Oakland, 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
AR-1	6/26/2000	--		15.61	8.00	28.00	11.59	4.02	--	--	--	--	--	--	--	--
	7/20/2000	--		15.61	8.00	28.00	12.06	3.55	<50	<0.5	<0.5	<0.5	<1.0	6	--	--
	9/19/2000	--		15.61	8.00	28.00	11.89	3.72	<50	<0.5	<0.5	<0.5	<1.0	<3	--	--
	12/26/2000	--		15.61	8.00	28.00	11.95	3.66	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	03/20/01	--	a	15.61	8.00	28.00	--	--	--	--	--	--	--	--	--	--
	6/12/2001	--		15.61	8.00	28.00	11.87	3.74	<50	<0.5	<0.5	<0.5	<0.5	17	--	--
	9/23/2001	--		15.61	8.00	28.00	12.42	3.19	--	--	--	--	--	--	--	--
	12/28/2001	--		15.61	8.00	28.00	7.62	7.99	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/21/2002	--		15.61	8.00	28.00	9.37	6.24	--	--	--	--	--	--	--	--
	4/17/2002	--		15.61	8.00	28.00	10.43	5.18	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	8/14/2002	--		15.61	8.00	28.00	12.08	3.53	<50	<0.5	<0.5	<0.5	1.3	<2.5	2.2	7.9
	11/27/2002	--		15.61	8.00	28.00	12.00	3.61	--	--	--	--	--	--	--	--
	2/12/2003	--	d	15.61	8.00	28.00	10.89	4.72	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.9
	5/22/2003	--		15.61	8.00	28.00	11.18	4.43	--	--	--	--	--	--	--	--
	7/23/2003	--		15.61	8.00	28.00	11.73	3.88	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	7.7
	11/13/2003	--		15.61	8.00	28.00	12.05	3.56	--	--	--	--	--	--	--	--
	02/16/2004	--		18.18	8.00	28.00	10.35	7.83	--	--	--	--	--	--	--	--
	05/06/2004	--		18.18	8.00	28.00	11.60	6.58	--	--	--	--	--	--	--	--
	09/02/2004	P		18.18	8.00	28.00	11.88	6.30	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	7.8
	11/29/2004	--		18.18	8.00	28.00	11.55	6.63	--	--	--	--	--	--	--	--
	02/02/2005	--		18.18	8.00	28.00	9.92	8.26	--	--	--	--	--	--	--	--
AR-2	6/26/2000	--		15.28	8.50	28.50	11.79	3.49	--	--	--	--	--	--	--	--
	7/20/2000	--		15.28	8.50	28.50	12.07	3.21	<50	<0.5	<0.5	<0.5	<1.0	<3	--	--
	9/19/2000	--		15.28	8.50	28.50	12.08	3.20	<50	<0.5	<0.5	<0.5	<1.0	<3	--	--
	12/26/2000	--		15.28	8.50	28.50	11.95	3.33	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/20/2001	--		15.28	8.50	28.50	10.50	4.78	--	--	--	--	--	--	--	--
	6/12/2001	--		15.28	8.50	28.50	11.73	3.55	<50	<0.5	<0.5	<0.5	<0.5	82	--	--
	9/23/2001	--		15.28	8.50	28.50	12.43	2.85	--	--	--	--	--	--	--	--
	12/28/2001	--		15.28	8.50	28.50	8.60	6.68	<50	<0.5	<0.5	<0.5	<0.5	30	--	--
	3/21/2002	--		15.28	8.50	28.50	9.49	5.79	--	--	--	--	--	--	--	--
	4/17/2002	--		15.28	8.50	28.50	10.37	4.91	<50	<0.5	<0.5	<0.5	<0.5	3.2	--	--
	8/14/2002	--		15.28	8.50	28.50	12.13	3.15	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1.4	7.9
	11/27/2002	--		15.28	8.50	28.50	12.08	3.20	--	--	--	--	--	--	--	--

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Groundwater Elevation and Analytical Data

ARCO Service Station #2169
889 W. Grand Ave., Oakland, 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
AR-2	2/12/2003	--	d	15.28	8.50	28.50	11.15	4.13	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	7.5
	5/22/2003	--		15.28	8.50	28.50	11.18	4.10	--	--	--	--	--	--	--	--
	7/23/2003	--		15.28	8.50	28.50	11.85	3.43	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	8.2
	11/13/2003	--	f	15.28	8.50	28.50	11.98	3.30	--	--	--	--	--	--	--	--
	02/16/2004	--	f, i	17.87	8.50	28.50	10.69	7.18	--	--	--	--	--	--	--	--
	05/06/2004	--		17.87	8.50	28.50	11.55	6.32	--	--	--	--	--	--	--	--
	09/02/2004	--	k	17.87	8.50	28.50	--	--	--	--	--	--	--	--	--	--
	09/20/2004	NP		17.87	8.50	28.50	11.98	5.89	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	10.4
	11/29/2004	--		17.87	8.50	28.50	12.62	5.25	--	--	--	--	--	--	--	--
	02/02/2005	--		17.87	8.50	28.50	10.12	7.75	--	--	--	--	--	--	--	--

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #2169
889 W. Grand Ave., Oakland, CA

ABBREVIATIONS & SYMBOLS:

-- = Not analyzed/applicable/measured/available
< = Not detected at or above laboratory reporting limit
DO = Dissolved oxygen
DTW = Depth to water in feet below ground surface
ft bgs = feet below ground surface
ft MSL = feet above mean sea level
GRO = Gasoline Range Organics, range C4-C12
GWE = Groundwater elevation measured in feet above mean sea level
mg/L = Milligrams per liter
MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted
NP = Not Purged
P = Purge
TOC = Top of casing measured in feet above mean sea level
TPH-g = Total petroleum hydrocarbons as gasoline
ug/L = Micrograms per liter

FOOTNOTES:

a = Well was covered by stockpiled soil and not accessible
b = GRO/TPH-g Chromatogram Pattern: Gasoline C6-C10
c = Primary and confirmation results for xylene varied by greater than 40% RPD. The values may still be useful for their intended purpose
d = TPH-g, BTEX, and MTBE analyzed using EPA Method 8260B starting first quarter 2003
e = Well inaccessible.
f = ORC sock in well
g = Well removed from annual sampling schedule
h = ORC sock removed prior to gauging
i = Site re-survey to NAV'88 datum on January 30, 2004
j = Sheen
k = Car parked over well AR-2 during monitoring event on 9/2/04. Well was sampled 9/20/04.

NOTES:

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPHg has been changed to GRO. The resulting data may be impacted by the potential of non-TPHg 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

Top and bottom of screen depths for wells ADR-1 and ADR-2 are estimated from EMCON sampling sheets.

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 #2169
 889 W. Grand Ave., Oakland, 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
A-1	2/12/2003	<40	<20	2.9	<0.50	<0.50	<0.50	---	---	
	5/22/2003	<100	<20	4.9	<0.50	<0.50	<0.50	---	---	
	7/23/2003	<100	<20	10	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/13/2003	<100	<20	4.2	<0.50	<0.50	<0.50	--	--	
	02/16/2004	<100	<20	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/06/2004	<100	<20	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/02/2004	<100	<20	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/29/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	02/02/2005	<100	<20	5.1	<0.50	<0.50	<0.50	<0.50	<0.50	a
A-2	2/12/2003	<40	<20	12	<0.50	<0.50	<0.50	---	---	
	5/22/2003	---	---	--	---	---	---	---	---	
	7/23/2003	<100	<20	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/02/2004	<100	<20	2.5	<0.50	<0.50	<0.50	<0.50	<0.50	
A-3	2/12/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	5/22/2003	---	---	--	---	---	---	---	---	
	7/23/2003	---	---	--	---	---	---	---	---	
A-4	2/12/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	5/22/2003	---	---	--	---	---	---	---	---	
	7/23/2003	---	---	--	---	---	---	---	---	
A-5	2/12/2003	<400	<200	<5.0	<5.0	<5.0	<5.0	---	---	
	5/22/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	---	---	
	7/23/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
	11/13/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	--	--	
	02/16/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/06/2004	<500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
	09/02/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	11/29/2004	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
	02/02/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
A-6	2/12/2003	<40	<20	9.9	<0.50	<0.50	<0.50	---	---	
	5/22/2003	<100	<20	11	<0.50	<0.50	0.6	---	---	
	7/23/2003	<100	<20	14	<0.50	<0.50	0.54	<0.50	<0.50	
	11/13/2003	<100	<20	2.3	<0.50	<0.50	<0.50	--	--	

Table 2

Fuel Additives Analytical Data
 ARCO Service Station #2169
 889 W. Grand Ave., Oakland, 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
A-6	02/16/2004	<100	<20	3.9	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/06/2004	<100	<20	7.1	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/02/2004	<100	<20	4.4	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/29/2004	<100	<20	2.9	<0.50	<0.50	<0.50	<0.50	<0.50	
	02/02/2005	<100	<20	14	<0.50	<0.50	0.91	<0.50	<0.50	a
ADR-1	2/12/2003	<40	<20	0.73	<0.50	<0.50	<0.50	--	--	
	5/22/2003	<100	<20	3.5	<0.50	<0.50	<0.50	--	--	
	7/23/2003	<100	<20	4	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/13/2003	<100	<20	1.6	<0.50	<0.50	<0.50	--	--	
	02/16/2004	<100	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/07/2004	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
	09/02/2004	<100	<20	0.84	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/29/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/02/2005	<100	<20	3.4	<0.50	<0.50	<0.50	<0.50	<0.50	a	
ADR-2	2/12/2003	<400	<200	22	<5.0	<5.0	<5.0	--	--	
	5/22/2003	<1,000	<200	9.7	<5.0	<5.0	<5.0	--	--	
	7/23/2003	<100	<20	8.4	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/02/2004	<1,000	<200	5.6	<5.0	<5.0	<5.0	<5.0	<5.0	
AR-1	2/12/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
	5/22/2003	--	--	--	--	--	--	--	--	
	7/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/02/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
AR-2	2/12/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
	5/22/2003	--	--	--	--	--	--	--	--	
	7/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/20/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2

Fuel Additives Analytical Data

ARCO Service Station #2169
889 W. Grand Ave., Oakland, CA

ABBREVIATIONS & SYMBOLS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above the 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

ug/L = Micrograms per Liter

FOOTNOTES:

a = Calibration verification is within method limits but outside contract limits for ethanol.

NOTES:

All volatile organic compounds (Ethanol, TBA, MTBE, DIPE, ETBE, and TAME) 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 #2169
889 W. Grand Ave., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
7/20/2000	Northwest	0.004
9/19/2000	West-Northwest	0.003
12/26/2000	Northwest	0.004
3/20/2001	Northwest	0.003
6/12/2001	Northwest	0.004
9/23/2001	Northwest	0.004
12/28/2001	Variable	Variable
3/21/2002	Northwest	0.004
4/17/2002	Northwest	0.003
8/14/2002	West	0.003
11/27/2002	West	0.003
2/12/2003	South	0.005
5/22/2003	West to Northwest	0.002 to 0.003
7/23/2003	Southwest to Northwest	0.005 to 0.004
11/13/2003	Southwest	0.009
2/16/2004	Southwest	0.009
5/6/2004	Southwest	0.004
9/2/2004	West-Northwest	0.005
11/29/2004	West to Southwest	0.005 to 0.006
2/2/2005	Northwest to Southwest	0.005

Source : 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.

ATTACHMENT A
FIELD PROCEDURES AND FIELD DATA SHEETS

FIELD PROCEDURES

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 # 050202-M02 Date 2/2/05 Client Z/69

Site 889 W. Grand Ave, Oakland

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	
A-1	3					9.18	23.78		page
A-2	3					9.73	24.56		
A-3	3					10.42	28.37		
A-4	3					9.22	27.64		
A-5	2					8.37	24.13		51
A-6	2					8.46	26.90		51
AR-1	6					9.92	27.62		
AR-2	4					10.12	28.58		
ADR-1	4					9.02	20.95		51
ADR-2	4	*	orc in well			9.76	26.38		
			* gauged DTAs w/orc in well						

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050202-MD2</u>	Station # <u>2169</u>
Sampler: <u>MD</u>	Date: <u>02/02/05</u>
Well I.D.: <u>A-1</u>	Well Diameter: 2 <u>3</u> 4 6 8
Total Well Depth: <u>23.70</u>	Depth to Water: <u>9.18</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>RVC</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
<u>3"</u>	0.37	Other	radius ² * 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.

<u>5.4</u>	x	<u>3</u>	=	<u>16.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
<u>1459</u>	<u>69.7</u>	<u>7.4</u>	<u>1019</u>	<u>5.4</u>	<u>clear</u>
<u>1505</u>	<u>70.4</u>	<u>7.2</u>	<u>1024</u>	<u>10.8</u>	<u>"</u>
<u>15</u>	<u>70.9</u>	<u>7.2</u>	<u>1021</u>	<u>16.2</u>	<u>clear</u>

Did well dewater? Yes No Gallons actually evacuated: 16.2

Sampling Time: 1520 Sampling Date: 2/2/05

Sample I.D.: A-1 Laboratory: Pace Sequoia Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SYSCOPE

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

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050202-MW2</u>	Station # <u>2169</u>
Sampler: <u>MW</u>	Date: <u>2/2/05</u>
Well I.D.: <u>A-5</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>24.13</u>	Depth to Water: <u>8.37</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 ² * 0.163

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port 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.

1 Case Volume (Gals.)	x	<u>1.05</u> Specified Volumes	=	_____ Gals. Calculated Volume
-----------------------	---	----------------------------------	---	----------------------------------

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1440	63.6	7.4	1024	-	clear, odor

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: _____	
Sampling Time: <u>1440</u>	Sampling Date: <u>2/2/05</u>	
Sample I.D.: <u>A-5</u>	Laboratory: Pace <u>Sequoia</u> Other _____	
Analyzed for: TPH-G BTEX MTBE TPH-D Other: <u>See Scope</u>		
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: <u>0.6</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050202-M12</u>	Station #: <u>2169</u>
Sampler: <u>M</u>	Date: <u>2/2/05</u>
Well I.D.: <u>A-6</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u> </u>
Total Well Depth: <u>26.90</u>	Depth to Water: <u>8.46</u>
Depth to Free Product: <u> </u>	Thickness of Free Product (feet): <u> </u>
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 ² * 0.163

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible Extraction Pump Other: <u> </u>	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Other: <u> </u>
---	---

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.

<u> </u> 1 Case Volume (Gals.)	x	<u>105</u> Specified Volumes	=	<u> </u> Calculated Volume	Gals.
-------------------------------------	---	---------------------------------	---	---------------------------------	-------

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1430	7.5	7.2	1091	 	
1430	67.1	7.4	1091	-	clear

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u> </u>	
Sampling Time: <u>1430</u>	Sampling Date: <u>2/2/05</u>	
Sample I.D.: <u>A-6</u>	Laboratory: Pace <u>Sequoia</u> Other <u> </u>	
Analyzed for: GRO BTEX MTBE DRO	Other: <u>See Scope</u>	
D.O. (if req'd):	Pre-purge: <u> </u> mg/L	Post-purge: <u>0.5</u> mg/L
O.R.P. (if req'd):	Pre-purge: <u> </u> mV	Post-purge: <u> </u> 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:

2169

Station #

889 W. Grand Ave., Oakland

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

17

added equip. _____
rinse water _____

any other adjustments _____

TOTAL GALS. RECOVERED 17

loaded onto BTS vehicle # 59

BTS event # 050202-MD2 time 1530 date 2/2/05

signature [Signature]

REC'D AT BTS time 1650 date 2/2/05

unloaded by signature [Signature]

ATTACHMENT B

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

LABORATORY PROCEDURES

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.



15 February, 2005

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

RE: ARCO #2169, Oakland, CA
Work Order: MOB0193

Enclosed are the results of analyses for samples received by the laboratory on 02/03/05 16:51. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #2169, Oakland, CA Project Number: G09JZ-0199 Project Manager: Scott Robinson	MOB0193 Reported: 02/15/05 11:09
---	---	--

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-1	MOB0193-01	Water	02/02/05 15:20	02/03/05 16:51
A-5	MOB0193-02	Water	02/02/05 14:40	02/03/05 16:51
A-6	MOB0193-03	Water	02/02/05 14:30	02/03/05 16:51
ADR-1	MOB0193-04	Water	02/02/05 14:20	02/03/05 16:51
TB-2169-02022005	MOB0193-05	Water	02/02/05 00:00	02/03/05 16:51

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

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

 Project: ARCO #2169, Oakland, CA
 Project Number: G09JZ-0199
 Project Manager: Scott Robinson

 MOB0193
 Reported:
 02/15/05 11:09

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-1 (MOB0193-01) Water Sampled: 02/02/05 15:20 Received: 02/03/05 16:51									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B09017	02/09/05	02/09/05	EPA 8260B	
Benzene	14	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	100	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	5.1	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	0.55	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	56	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		115 %	60-135	"	"	"	"	"	
A-5 (MOB0193-02) Water Sampled: 02/02/05 14:40 Received: 02/03/05 16:51									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B09017	02/09/05	02/09/05	EPA 8260B	
Benzene	31	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	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	10	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	2.3	0.50	"	"	"	"	"	"	
Xylenes (total)	13	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	220	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		115 %	60-135	"	"	"	"	"	

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

 Project: ARCO #2169, Oakland, CA
 Project Number: G09JZ-0199
 Project Manager: Scott Robinson

 MOB0193
 Reported:
 02/15/05 11:09

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-6 (MOB0193-03) Water Sampled: 02/02/05 14:30 Received: 02/03/05 16:51									
tert-Amyl methyl ether	0.91	0.50	ug/l	1	5B09017	02/09/05	02/09/05	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	100	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	14	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	150	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		116 %	60-135	"	"	"	"	"	
ADR-1 (MOB0193-04) Water Sampled: 02/02/05 14:20 Received: 02/03/05 16:51									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B09017	02/09/05	02/09/05	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	100	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	3.4	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>		113 %	60-135	"	"	"	"	"	

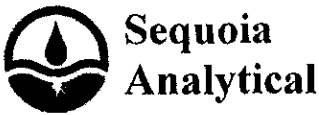
URS Corporation [Arco]
1333 Broadway, Suite 800
Oakland CA, 94612

Project: ARCO #2169, Oakland, CA
Project Number: G09JZ-0199
Project Manager: Scott Robinson

MOB0193
Reported:
02/15/05 11:09

**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
Batch 5B09017 - EPA 5030B P/T / EPA 8260B										
Blank (5B09017-BLK1) Prepared & Analyzed: 02/09/05										
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	100	"							IC
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>	5.59		"	5.00		112	60-135			
Laboratory Control Sample (5B09017-BS1) Prepared & Analyzed: 02/09/05										
tert-Amyl methyl ether	9.70	0.50	ug/l	10.0		97	80-115			
Benzene	8.37	0.50	"	10.0		84	65-115			
tert-Butyl alcohol	45.8	20	"	50.0		92	75-150			
Di-isopropyl ether	7.73	0.50	"	10.0		77	75-125			
1,2-Dibromoethane (EDB)	11.2	0.50	"	10.0		112	85-120			
1,2-Dichloroethane	10.7	0.50	"	10.0		107	85-130			
Ethanol	107	100	"	200		54	70-135			IC, HM
Ethyl tert-butyl ether	8.95	0.50	"	10.0		90	75-130			
Ethylbenzene	9.24	0.50	"	10.0		92	75-135			
Methyl tert-butyl ether	9.95	0.50	"	10.0		100	65-125			
Toluene	9.04	0.50	"	10.0		90	85-120			
Xylenes (total)	27.0	0.50	"	30.0		90	85-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.48		"	5.00		110	60-135			



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MOB0193
Reported:
02/15/05 11:09

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 5B09017 - EPA 5030B P/T / EPA 8260B

Laboratory Control Sample (5B09017-BS2)

Prepared & Analyzed: 02/09/05

Benzene	5.03	0.50	ug/l	6.08		83	65-115			
Ethylbenzene	7.71	0.50	"	7.84		98	75-135			
Methyl tert-butyl ether	8.41	0.50	"	9.60		88	65-125			
Toluene	30.7	0.50	"	32.9		93	85-120			
Xylenes (total)	37.7	0.50	"	38.5		98	85-125			
Gasoline Range Organics (C4-C12)	374	50	"	440		85	70-124			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.19</i>		<i>"</i>	<i>5.00</i>		<i>104</i>	<i>60-135</i>			

Laboratory Control Sample Dup (5B09017-BSD1)

Prepared: 02/09/05 Analyzed: 02/10/05

tert-Amyl methyl ether	9.49	0.50	ug/l	10.0		95	80-115	2	15	
Benzene	9.15	0.50	"	10.0		92	65-115	9	20	
tert-Butyl alcohol	47.4	20	"	50.0		95	75-150	3	25	
Di-isopropyl ether	8.28	0.50	"	10.0		83	75-125	7	15	
1,2-Dibromoethane (EDB)	10.7	0.50	"	10.0		107	85-120	5	15	
1,2-Dichloroethane	11.1	0.50	"	10.0		111	85-130	4	20	
Ethanol	136	100	"	200		68	70-135	24	35	IC, HM
Ethyl tert-butyl ether	9.16	0.50	"	10.0		92	75-130	2	25	
Ethylbenzene	9.96	0.50	"	10.0		100	75-135	8	15	
Methyl tert-butyl ether	9.96	0.50	"	10.0		100	65-125	0.1	20	
Toluene	9.85	0.50	"	10.0		98	85-120	9	20	
Xylenes (total)	29.4	0.50	"	30.0		98	85-125	9	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.21</i>		<i>"</i>	<i>5.00</i>		<i>104</i>	<i>60-135</i>			

Matrix Spike (5B09017-MS1)

Source: MOB0194-04

Prepared: 02/09/05 Analyzed: 02/10/05

Benzene	1130	25	ug/l	304	890	79	65-115			
Ethylbenzene	403	25	"	392	6.0	101	75-135			
Methyl tert-butyl ether	2090	25	"	480	1900	40	65-125			LN
Toluene	1580	25	"	1640	9.5	96	85-120			
Xylenes (total)	1960	25	"	1920	ND	102	85-125			
Gasoline Range Organics (C4-C12)	23900	2500	"	22000	5000	86	70-124			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.26</i>		<i>"</i>	<i>5.00</i>		<i>105</i>	<i>60-135</i>			

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

Project: ARCO #2169, Oakland, CA
Project Number: G09JZ-0199
Project Manager: Scott Robinson

MOB0193
Reported:
02/15/05 11:09

**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 5B09017 - EPA 5030B P/T / EPA 8260B

Matrix Spike Dup (5B09017-MSD1)	Source: MOB0194-04			Prepared: 02/09/05 Analyzed: 02/10/05						
Benzene	1090	25	ug/l	304	890	66	65-115	4	20	
Ethylbenzene	389	25	"	392	6.0	98	75-135	4	15	
Methyl tert-butyl ether	2200	25	"	480	1900	62	65-125	5	20	LN
Toluene	1540	25	"	1640	9.5	93	85-120	3	20	
Xylenes (total)	1890	25	"	1920	ND	98	85-125	4	20	
Gasoline Range Organics (C4-C12)	23400	2500	"	22000	5000	84	70-124	2	20	
Surrogate: 1,2-Dichloroethane-d4	5.38		"	5.00		108	60-135			

URS Corporation [Arco]
1333 Broadway, Suite 800
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Project:ARCO #2169, Oakland, CA
Project Number:G09JZ-0199
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MOB0193
Reported:
02/15/05 11:09

Notes and Definitions

LN MS and/or MSD below acceptance limits. See Blank Spike(LCS).
IC Calib. verif. is within method limits but outside contract limits
HM Analyte recovery below established limit
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

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: ARCO 2169
 REC. BY (PRINT): JJ
 WORKORDER: MOB 6193

DATE REC'D AT LAB: 2/4/05
 TIME REC'D AT LAB: 1651
 DATE LOGGED IN: 2-4-05

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

(For clients requiring preservation checks at receipt, document here ↓)

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 / Absent Intact / Broken*	01	A-C	A-1	VOL (3)	HCl	-	W	2/4/05	
2. Chain-of-Custody Present / Absent*	02	↓	A-5	↓	↓	↓	↓	↓	
3. Traffic Reports or Packing List: Present / Absent	03	↓	A-6	↓	↓	↓	↓	↓	
4. Airbill: Airbill / Sticker Present / Absent	04	↓	ADR-1	↓	↓	↓	↓	↓	
5. Airbill #:									
6. Sample Labels: Present / Absent									
7. Sample IDs: Listed / Not Listed on Chain-of-Custody									
8. Sample Condition: Intact / Broken* / Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes / No*									
10. Sample received within hold time? Yes / No*									
11. Adequate sample volume received? Yes / No*									
12. Proper Preservatives used? Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / No*									
14. Temp Rec. at Lab: Is temp 4 ± 2°C? Yes / No**									

(Acceptance range for samples requiring thermal pres.)
 **Exception (if any): METALS / DFF ON ICE or Problem COC

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

ATTACHMENT C

HISTORICAL GROUNDWATER DATA

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1985 - Present

ARCO Service Station 2185
889 West Grand Avenue, Oakland, California

Well Number	Date Gaged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH					MTBE (µg/L)	MDEP (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (µg/L)	Pumped/Not Pumped (P/NP)
							Gasoline (µg/L)	Hexane (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)					
A-1	03-24-95	14.16	8.10	ND	6.06	03-24-95	1,200	230	39	34	66	..	..	160	
A-1	06-03-95	14.16	11.13	ND	3.03	06-03-95	1,300	310	27	36	76	..	..	710	
A-1	08-17-95	14.16	11.71	ND	2.45	08-17-95	1,600	470	35	48	120	..	..	240	
A-1	12-04-95	14.16	12.28	ND	1.88	12-04-95	1,200	240	17	25	36	..	..	..
A-1	03-01-96	14.16	8.78	ND	5.58	03-01-96	1,300	300	74	29	73	100	..	..
A-1	03-29-96	14.16	9.25	ND	4.31	03-29-96	1,200	320	5.9	25	27	..	..	..
A-1	08-29-96	14.16	11.08	ND	3.68	08-29-96	1,200	320	5.9	25	27	..	..	..
A-1	11-21-96	14.16	10.34	ND	3.62	11-21-96	1,200	320	5.9	25	27	..	..	..
A-1	03-26-97	14.16	10.55	ND	3.61	03-26-97	<50	0.5	<0.5	<0.5	64	..	..	..
A-1	05-21-97	14.16	11.10	ND	3.65	05-21-97	<50	0.5	<0.5	<0.5	64	..	..	..
A-1	08-08-97	14.16	11.32	ND	2.84	08-08-97	<50	0.5	<0.5	<0.5	64	..	..	..
A-1	11-18-97	14.16	3.46	ND	10.70	11-18-97	91	7	<0.5	0.5	3.9	..	..	..
A-1	02-20-98	14.16	7.10	ND	7.08	02-20-98	54	<0.5	<0.5	0.5	3.9	..	..	..
A-1	05-11-98	14.16	9.87	ND	4.29	05-11-98	390	160	22	15	27	..	..	..
A-1	07-30-98	14.16	10.73	ND	3.43	07-30-98	280	26	<0.5	0.5	2.8	..	..	..
A-1	10-08-98	14.16	11.15	ND	3.01	10-08-98	1,000	210	5	0.8	2.3	..	..	..
A-1	02-18-99	14.16	8.00	ND	6.16	02-18-99	3,180	740	11	4.0	38	..	..	..
A-1	03-26-99	14.16	10.60	ND	3.56	03-26-99	510	87	7.1	6.4	24	..	..	..
A-1	08-23-99	14.16	11.22	ND	2.94	08-23-99	240	26	10.6	11	13	..	..	..
A-1	10-27-99	14.16	11.37	ND	2.79	10-27-99	79	3.9	10.6	11	13	..	..	..
A-1	01-31-00	14.16	9.44	ND	4.72	01-31-00	110	2.2	<0.5	<0.5	1.7	..	..	..
							<50	0.5	<0.5	0.5	4.1	..	..	..	0.68 NP
												..	..	..	0.30 NP
												..	..	..	LO NP

04K01ARCO02169QTRZ Historical Data.rtf

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (ft)	FP Thickness (ft)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (pp/L)	Benzene (pp/L)	Toluene (pp/L)	Ethylbenzene (pp/L)	Total Xylenes (pp/L)	MIBK 8021B* (pp/L)	MIBK 8250 (pp/L)	TPH Diesel (pp/L)	Dissolved Oxygen (pp/L)	Pumped/Not Pumped (P/NP)
A-2	03-24-95	14.55	8.64	ND	5.91	03-24-95	<0	<0.5	<0.5	<0.5	<0.5					
A-2	06-05-95	14.55	11.72	ND	2.83	06-05-95	<0	<0.5	<0.5	<0.5	<0.5					
A-2	08-17-95	14.55	12.35	ND	2.20	08-17-95	<0	<0.5	<0.5	<0.5	<0.5					
A-2	12-04-95	14.55	12.74	ND	1.81	12-04-95	<0	<0.5	<0.5	<0.5	<0.5					
A-2	03-01-96	14.55	9.34	ND	5.21	03-01-96	<0	<0.5	<0.5	<0.5	<0.5	12				
A-2	03-29-96	14.55	10.40	ND	4.15	03-29-96	<0	<0.5	0.6	<0.5	<0.5					
A-2	08-29-96	14.55	11.30	ND	3.05	08-29-96	<0	<0.5	<0.5	<0.5	1.3					
A-2	11-21-96	14.55	11.06	ND	3.49	11-21-96	<0	<0.5	<0.5	<0.5	<0.5					
A-2	03-26-97	14.55	11.12	ND	3.43	03-26-97	<0	<0.5	<0.5	<0.5	<0.5					
A-2	05-21-97	14.55	11.58	ND	2.97	05-21-97	<0	<0.5	<0.5	<0.5	<0.5					
A-2	08-08-97	14.55	11.82	ND	2.73	08-08-97	<0	<0.5	<0.5	<0.5	<0.5					
A-2	11-18-97	14.55	3.53	ND	11.22	11-18-97	Not sampled; well sampled semi-annually, during the first and third quarters									
A-2	02-20-98	14.55	7.68	ND	6.87	02-20-98	<0	<0.5	<0.5	<0.5	<0.5					
A-2	05-11-98	14.55	10.43	ND	4.10	05-11-98	Not sampled; well sampled semi-annually, during the first and third quarters									
A-2	07-30-98	14.55	11.23	ND	3.32	07-30-98	Not sampled									
A-2	10-08-98	14.55	11.62	ND	2.93	10-08-98	Not sampled; well sampled semi-annually, during the first and second quarters									
A-2	02-18-99	14.55	8.62	ND	5.93	02-18-99	Not sampled; well sampled semi-annually, during the first and second quarters									
A-2	05-26-99	14.55	11.16	ND	3.39	05-26-99	98	<0.5	<0.5	<0.5	<0.5					
A-2	08-23-99	14.55	11.69	ND	2.86	08-23-99	<0	<0.5	<0.5	<0.5	<0.5	26				
A-2	10-27-99	14.55	11.88	ND	2.67	10-27-99	Not sampled; well sampled semi-annually, during the first and second quarters									
A-2	01-31-00	14.55	10.37	ND	4.38	01-31-00	<0	<0.5	<0.5	<0.5	<0.5				0.59	
															0.59	
															LO	NP

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Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1988 - Present

ARCO Service Station 2169
888 West Grand Avenue, Oakland, California

Well Number	Date Charged	TOC Elevation (ft-MSL)	Depth to Water (ft)	FP Thickness (ft)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Biphenyls (ug/L)	Total Xylene (ug/L)	MTBE 8021B* (ug/L)	MIBE 8260 (ug/L)	TEH Diesel (ug/L)	Disolved Oxygen (ug/L)	Perched Not Perched (P/NP)
A-3	03-24-95	15.75	8.83	ND												
A-3	06-05-95	15.75	12.44	ND	6.92	03-24-95	<30	<0.5	<0.5	<0.5	<0.5					
A-3	08-17-95	15.75	13.04	ND	3.31	06-05-95	Not sampled; well sampled annually									
A-3	12-04-95	15.75	13.57	ND	2.71	08-17-95	Not sampled; well sampled annually									
A-3	03-01-96	15.75	9.90	ND	2.18	12-04-95	Not sampled; well sampled annually									
A-3	05-23-96	15.75	11.08	ND	3.25	03-01-96	<30	<0.5	<0.5							
A-3	08-29-96	15.75	12.38	ND	4.67	03-01-96	<30	<0.5	<0.5	<0.5	<0.5					
A-3	11-21-96	15.75	11.36	ND	3.37	08-29-96	Not sampled; well sampled annually									
A-3	03-26-97	15.75	11.81	ND	3.89	11-21-96	Not sampled; well sampled annually									
A-3	05-21-97	15.75	12.35	ND	3.94	03-26-97	<30	<0.5	<0.5							
A-3	08-08-97	15.75	12.62	ND	3.40	05-21-97	Not sampled; well sampled annually									
A-3	11-18-97	15.75	9.75	ND	3.13	08-08-97	Not sampled; well sampled annually									
A-3	02-20-98	15.75	2.06	ND	12.00	11-18-97	Not sampled; well sampled annually									
A-3	05-11-98	15.75	11.19	ND	7.69	02-20-98	<30	<0.5	<0.5	<0.5	<0.5					
A-3	07-30-98	15.75	12.03	ND	4.56	05-11-98	Not sampled; well sampled annually									
A-3	10-08-98	15.75	12.43	ND	3.70	07-30-98	Not sampled; well sampled annually									
A-3	02-18-99	15.75	9.03	ND	3.52	10-08-98	Not sampled; well sampled annually									
A-3	05-26-99	15.75	11.93	ND	6.70	02-18-99	Not sampled; well sampled annually									
A-3	08-23-99	15.75	12.57	ND	3.82	05-26-99	<30	<0.5	<0.5							
A-3	10-27-99	15.75	12.65	ND	3.18	08-23-99	Not sampled; well sampled annually									
A-3	01-31-00	15.75	9.55	ND	3.10	10-27-99	Not sampled; well sampled annually									
					6.20	01-31-00	<30	<0.5	<0.5	<0.5	<0.5				0.88	
															1.0	NP

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IT CORPORATION

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1985 - Present

ARCO Service Station 2169
685 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (ft)	FP Thickness (ft)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MIBB SU21B* (µg/L)	MIBZ SU260 (µg/L)	TEH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)
A-4	03-24-95	15.25	7.20	ND	8.05	03-24-95	<50	<0.5	<0.5	<0.5	<0.5					
A-4	06-05-95	15.25	11.70	ND	3.53	06-05-95	Not sampled; well sampled annually									
A-4	08-17-95	15.25	12.28	ND	2.97	08-17-95	Not sampled; well sampled annually									
A-4	12-04-95	15.25	12.63	ND	2.62	12-04-95	Not sampled; well sampled annually									
A-4	03-01-96	15.25	8.33	ND	6.70	03-01-96	Not sampled; well sampled annually									
A-4	03-29-96	15.25	10.32	ND	4.93	03-29-96	Not sampled; well sampled annually									
A-4	08-29-96	15.25	11.35	ND	3.70	08-29-96	Not sampled; well sampled annually									
A-4	11-21-96	15.25	10.83	ND	4.42	11-21-96	Not sampled; well sampled annually									
A-4	03-26-97	15.25	10.97	ND	4.28	03-26-97	Not sampled; well sampled annually									
A-4	08-08-97	15.25	11.51	ND	3.74	08-08-97	Not sampled; well sampled annually									
A-4	11-18-97	15.25	4.37	ND	3.52	11-18-97	Not sampled; well sampled annually									
A-4	02-20-98	15.25	6.23	ND	10.88	02-20-98	Not sampled; well sampled annually									
A-4	05-11-98	15.25	10.53	ND	9.00	05-11-98	Not sampled; well sampled annually									
A-4	07-30-98	15.25	11.23	ND	4.92	07-30-98	Not sampled; well sampled annually									
A-4	10-08-98	15.25	11.23	ND	4.00	10-08-98	Not sampled; well sampled annually									
A-4	02-18-99	15.25	7.12	ND	3.63	02-18-99	Not sampled; well sampled annually									
A-4	03-26-99	15.25	11.12	ND	8.13	03-26-99	Not sampled; well sampled annually									
A-4	08-23-99	15.25	11.62	ND	4.13	08-23-99	Not sampled; well sampled annually									
A-4	10-27-99	15.25	11.74	ND	3.63	10-27-99	Not sampled; well sampled annually									
A-4	01-31-00	15.25	9.45	ND	3.51	01-31-00	Not sampled; well sampled annually									
					3.80		<50	<0.5	<0.5	<0.5	<0.5				0.54	
															1.0	NP

ARC/ARCO/COG/OTEL/Environmental Data/etd/etd

IT CORPORATION

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1985 - Present**

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft. MSL)	Depth to Water (ft.)	FP Thickness (ft.)	Groundwater Elevation (ft. MSL)	Date Sampled	TVB Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MIBK W021B* (ug/L)	MIBK W260 (ug/L)	TEH Diesel (ug/L)	Dissolved Oxygen (mg/L)	Purge/ Not Purged (P/NP)	
A-5	03-24-95	13.51	7.40	ND	6.11												
A-5	06-05-95	13.51	10.43	ND	3.88	03-24-95	3,300	200	310	130	460						
A-5	08-17-95	13.51	11.15	ND	2.36	06-05-95	57,000	2,700	4,600	1,500	6,800						
A-5	12-04-95	13.51	11.42	ND	2.09	08-18-95	34,000	3,600	2,700	1,100	5,100						
A-5	03-01-96	13.51	8.11	ND	3.40	12-04-95	61	<0.5	<0.5	<0.5	<0.5						
A-5	05-29-96	13.51	9.30	ND	4.21	03-15-96	11,000	860	968	380	1,600						
A-5	08-29-96	13.51	10.60	ND	2.91	05-29-96	19,000	1,600	1,900	880	3,100	<100					
A-5	11-21-96	13.51	10.05	ND	3.46	06-29-96	7,700	480	450	260	990	<100					
A-5	03-26-97	13.51	9.87	ND	3.64	11-21-96	3,000	430	350	340	1,100	<100					
A-5	05-21-97	13.51	10.25	ND	3.26	03-26-97	3,100	190	140	130	340	<100					
A-5	08-08-97	13.51	10.42	ND	3.09	05-21-97	16,000	1,500	900	700	2,700	<100					
A-5	11-18-97	13.51				03-08-97	3,000	1,600	240	440	1,300	<100					
A-5	02-26-98	13.51															
A-5	05-11-98	13.51															
A-5	07-30-98	13.51															
A-5	10-08-98	13.51															
A-5	02-18-99	13.51															
A-5	05-26-99	13.51	7.63	ND	3.88												
A-5	08-23-99	13.51	9.25	ND	3.66	02-18-99	<50	10.2	<0.5	<0.5	1.5	<10					
A-5	10-27-99	13.51	10.60	ND	2.91	03-26-99	1,700	240	41	110	330						
A-5	01-31-00	13.51	10.72	ND	2.79	08-23-99	560	63	3	30	52						
			9.37	ND	4.14	10-27-99	480	93	1.0	16	19						
						01-31-00	Not sampled well was inaccessible									0.73	NP
															0.65	NP	

040304ARCO00160722.Petroleum Data.xls(5)

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1985 - Present

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (ft)	EP Thickness (ft)	Groundwater Elevation (ft-MSL)	Date Sampled	TEH Gasoline (pp/L)	Hexane (pp/L)	Toluene (pp/L)	Ethylbenzene (pp/L)	Total Xylene (pp/L)	MTHX 8021B* (pp/L)	MTHX 2260 (pp/L)	TEH Diesel (pp/L)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)
AR-2	03-24-95	15.28	9.13	ND	6.15	03-24-95	△ 0	△ 0	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	06-05-95	15.28	12.09	ND	3.19	06-05-95	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	09-17-95	15.28	12.78	ND	2.50	08-31-95	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	12-04-95	15.28	11.44	ND	3.84	12-23-95	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	03-01-96	15.28	9.83	ND	5.45	03-13-96	190	26	2.6	2.3	13	200	..	△ 0		
AR-2	05-29-96	15.28	10.97	ND	4.31	05-29-96	Not sampled; well sampled semi-annually, during the first and third quarters	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	△ 0		
AR-2	11-21-96	15.28	11.57	ND	3.71	08-29-96	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	03-26-97	15.28	11.60	ND	3.68	11-21-96	Not sampled; well sampled semi-annually, during the first and third quarters	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	△ 0		
AR-2	05-21-97	15.28	12.12	ND	3.16	03-26-97	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	08-08-97	15.28	12.35	ND	2.93	05-21-97	Not sampled; well sampled semi-annually, during the first and third quarters	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	△ 0		
AR-2	12-18-97	15.28	2.48	ND	12.80	08-08-97	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	02-02-98	15.28	10.97	ND	4.31	11-18-97	Not sampled; well sampled semi-annually, during the first and third quarters	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	△ 0		
AR-2	05-11-98	15.28	11.76	ND	3.52	02-20-98	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	07-30-98	15.28	11.17	ND	4.11	05-11-98	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	10-08-98	15.28	12.31	ND	2.97	10-08-98	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	02-18-99	15.28	11.72	ND	3.56	07-30-98	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	05-26-99	15.28	12.42	ND	2.86	10-08-98	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	08-23-99	15.28	12.31	ND	2.97	02-18-99	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	10-27-99	15.28	12.31	ND	2.97	08-23-99	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	..	△ 0		
AR-2	01-31-00	15.28	12.31	ND	2.97	10-27-99	Not sampled; well sampled semi-annually, during the first and second quarters	△ 0	△ 0.5	△ 0.5	△ 0.5	9.6	..	△ 0		
					4.97	01-31-00	Not sampled								0.61	

D:\ARCO\02169\TEL\VI\Historical Data.xls

IT CORPORATION

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Well Number	Date Sampled	TOC Elevation (ft-MSL)	Depth to Water (ft)	SP Thickness (ft)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (pp/L)	Benzene (pp/L)	Toluene (pp/L)	Ethylbenzene (pp/L)	Total Xylenes (pp/L)	MTHB 8021B* (pp/L)	MTHB 8260 (pp/L)	TPH Diesel (pp/L)	Dissolved Oxygen (pp/L)	Pumped/Not Pumped (P/NP)
ADR-1	05-24-95	13.95	8.04	0.01	** 5.92	03-24-95	Not sampled; well contained floating product									
ADR-1	06-03-95	13.95	11.02	ND	2.93	06-03-95	23,000	310	428	300	1,300					
ADR-1	08-17-95	13.95	11.85	ND	2.09	08-18-95	4,400	1150	110	95	620			13,000		
ADR-1	12-04-95	13.95	10.05	ND	3.90	12-13-95	8,800	100	130	120	390			4,500		
ADR-1	03-01-96	13.95	8.76	ND	3.19	03-13-96	89,900	970	1,000	840	3,100	<100				
ADR-1	05-29-96	13.95	9.74	ND	4.21	05-30-96	27,000	250	380	378	2,700	<100				
ADR-1	08-29-96	13.95	10.77	ND	3.18	08-29-96	5,300	190	58	75	470	85				
ADR-1	11-21-96	13.95	10.49	ND	3.46	11-21-96	1,900	82	21	32	270	110				
ADR-1	03-26-97	13.95	10.37	ND	3.58	03-26-97	1,300	260	6	39	27	95				
ADR-1	07-08-97	13.95	10.90	ND	3.05	07-21-97	2,100	300	18	37	289	79				
ADR-1	11-18-97	13.95	11.12	ND	2.83	08-08-97	3,900	620	49	110	478	<200				
ADR-1	02-20-98	13.95	3.47	ND	10.48	11-18-97	18,000	960	140	360	2,700	<60				
ADR-1	05-11-98	13.95			Not surveyed; well inaccessible											
ADR-1	07-30-98	13.95			Not surveyed; well inaccessible											
ADR-1	10-08-98	13.95			Not surveyed; well inaccessible											
ADR-1	02-18-99	13.95			Not surveyed; well inaccessible											
ADR-1	05-26-99	13.95	7.80	ND	6.15	02-18-99	300	4.4	<0.5	1.3	1.3	49				
ADR-1	08-23-99	13.95	10.40	ND	3.55	05-26-99	160	10	<0.5	1.7	1.8	43				
ADR-1	10-27-99	13.95	10.70	ND	3.25	08-23-99	7,400	310	16	210	970	18				
ADR-1	01-31-00	13.95	10.82	ND	3.18	10-27-99	5,600	310	63	180	690	5			0.37	NP
			9.21	ND	4.74	01-31-00	290	3.6	<0.5	1.1	<1	26			0.73	NP
															1.0	NP

Q:\ARC\ARCO\2169\Q1201\Historical Data\tbl01

IT CORPORATION

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1985 - Present

ARGO Service Station 2189
889 West Grand Avenue, Oakland, California

Well Number	Date Grouped	TOC Elevation (BASSL)	Depth to Water (feet)	FF Thickness (feet)	Groundwater Elevation (BASSL)	Date Sampled	TPH		Total Xylenes (pp/L)	MIBK (pp/L)	MCHB (pp/L)	TPH Diesel (pp/L)	Dissolved Oxygen (mg/L)	Pumped/Not Pumped (B/NP)
							Gasoline (pp/L)	Benzene (pp/L)						
ADR-2	03-24-95	14.64	8.41	>0.00	NR(I)	03-24-95	Not sampled; well contained floating product							
ADR-2	06-05-95	14.64	11.45	>0.00	NR(I)	06-05-95	Not sampled; well contained floating product							
ADR-2	08-17-95	14.64	12.10	0.03	** 2.56	08-17-95	Not sampled; well contained floating product							
ADR-2	12-04-95	14.64	10.93	0.03	** 3.79	12-04-95	Not sampled; well contained floating product							
ADR-2	03-01-96	14.64	10.93	0.03	** 3.79	03-01-96	Not sampled; well contained floating product							
ADR-2	05-25-96	14.64	10.43	ND	5.90	05-25-96	29,000	1,100	1,200	710	3,800	<300		
ADR-2	08-29-96	14.64	11.64	ND	4.21	08-29-96	33,000	510	500	470	2,900	120		
ADR-2	11-21-96	14.64	11.29	ND	3.60	11-21-96	8,000	290	180	150	730	53		
ADR-2	03-26-97	14.64	11.13	ND	3.41	03-26-97	15,000	630	440	390	2,100	75		
ADR-2	05-21-97	14.64	11.64	ND	3.51	05-21-97	4,100	320	23	100	400	32		
ADR-2	04-03-97	14.64	11.85	ND	3.00	04-03-97	6,100	320	22	210	320	32		
ADR-2	11-12-97	14.64	3.23	ND	2.79	11-12-97	8,400	330	33	230	910	<30		
ADR-2	02-09-98	14.64	7.67	ND	11.31	02-09-98	11,000	230	29	300	1,200	<60		
ADR-2	05-11-98	14.64	10.47	ND	6.97	05-11-98	4,700	310	50	190	360	20		
ADR-2	07-30-98	14.64	Not surveyed; well inaccessible			4.17	07-30-98	Not sampled						
ADR-2	10-08-98	14.64	11.67	ND	2.97	10-08-98	Not sampled							
ADR-2	01-12-99	14.64	Not surveyed; well inaccessible			2.97	01-12-99	Not sampled						
ADR-2	05-26-99	14.64	11.02	ND	3.62	05-26-99	5,900	670	5	340	104	16		
ADR-2	08-23-99	14.64	9.82	ND	4.82	08-23-99	9,100	370	12	410	1,000	28		
ADR-1	10-27-99	14.64	9.85	Sheen	4.79	10-27-99	Not sampled; sheen present						0.50	NP
ADR-1	01-31-00	14.64	10.15	ND	4.49	01-31-00	7,700	280	3.4	370	390	23	0.65	NP
													2.0	NP

ARGO ARCO 6160 QTR 1/18/00 Data 10/1/01

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present**

ARCO Service Station 2169
888 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (ft)	FP Thickness (ft)	Groundwater Elevation (ft-MSL)	Date Sampled	TEX Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MTHB (µg/L)	MTHB (µg/L)	TEX Diesel (µg/L)	Discharged Oxygen (mg/L)	Purged/ Not Purged (P/NP)
<p>TOC: top of casing ft-MSL: elevation in feet, relative to mean sea level TEX: total petroleum hydrocarbons, California DEW LUFF Method MTHB: benzene, toluene, ethylbenzene, total xylenes by EPA method 8211B (EPA method 8220 prior to 10/27/99) µg/L: micrograms per liter mg/L: milligrams per liter ND: none detected NR: not reported; data not available or not measurable --: not analyzed or not applicable <: detection concentration not present at or above laboratory detection limit stated to the right []: well contained more than 3 feet of floating product; exact product thickness and groundwater elevation could not be measured *: EPA method 8220 prior to 10/27/99 **: corrected elevation (Z') = Z + (h * 0.73) where Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water ***: For previous historical groundwater elevation data please refer to <i>Final Report ARCO Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, ARCO Service Station 2169, 888 West Grand Avenue, Oakland, California, (EMCCO), March 4, 1998.</i></p>																

ORANDARCON:69QTRLY:Historical Data:tbl1d1

IT CORPORATION

Table 2
Groundwater Flow Direction and Gradient

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
03-24-95	Northwest	0.009
05-05-95	Northwest	0.002
08-17-95	West	0.001
12-04-95	North-Northwest	0.002
03-01-96	Northwest	0.003
03-29-96	Northwest	0.002
08-29-96	West	0.002
11-21-96	West-Northwest	0.002
03-26-97	Northwest	0.002
05-21-97	North-Northwest	0.002
08-08-97	North-Northwest	0.002
11-18-97	North-Northwest	0.003
02-20-98	North	0.013
05-11-98	North	0.03
07-30-98	North	0.002
10-08-98	North-Northwest	0.002
02-18-99	Northwest	0.008
05-25-99	North-Northwest	0.003
08-23-99	Variable	Variable
10-27-99	Variable	Variable
01-31-00	West-Northwest	0.005

ATTACHMENT D

**ERROR CHECK REPORTS AND
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ARCO # 02169 889 GRAND AVE W OAKLAND, CA 94607	<u>Regional Board - Case #: 01-0120</u> SAN FRANCISCO BAY RWQCB (REGION 2) - (BG) <u>Local Agency (lead agency) - Case #: 3793</u> ALAMEDA COUNTY LOP - (AG)
---	---

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	4
# FIELD POINTS WITH DETECTIONS	4
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	2
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
<u>WATER SAMPLES FOR 8021/8260 SERIES</u>		
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%		N
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%		Y
<u>SOIL SAMPLES FOR 8021/8260 SERIES</u>		
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
<u>FIELD QC SAMPLES</u>		
<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS > REPDL</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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Submittal Type: GW Monitoring Report

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ARCO # 02169 889 GRAND AVE W OAKLAND, CA 94607	<u>Regional Board - Case #: 01-0120</u> SAN FRANCISCO BAY RWQCB (REGION 2) - (BG) <u>Local Agency (lead agency) - Case #: 3793</u> ALAMEDA COUNTY LOP - (AG)
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CONF #	TITLE	QUARTER
6661739289	1Q2005 QMR EDF ARCO Site 2169	Q1 2005
SUBMITTED BY	SUBMIT DATE	STATUS
Srijesh Thapa	2/18/2005	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	4
# FIELD POINTS WITH DETECTIONS	4
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	2
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
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MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	N
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 > REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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