URS

July 28, 2003

Mr. Scott Seery
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Second Quarter 2003 Groundwater Monitoring Report
ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California
URS Project #38486130

Dear Mr. Seery:

On behalf of Atlantic Richfield Company (ARCO – an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is submitting the *Second Quarter 2003 Groundwater Monitoring Report* for ARCO Service Station #5387, located at 20200 Hesperian Boulevard, Hayward, California.

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

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

Jim Durkin, R.G.
Senior Geologist

Enclosure: Second Quarter 2003 Groundwater Monitoring Report

cc: Mr. Paul Supple, ARCO, PO Box 6549, Moraga, CA 94570

URS Corporation
500 12th Street, Suite 200
Oakland, CA 94607-4014
Tel: 510.893.3600
Fax: 510.874.3268

Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 6549
Moraga, California 94570
Phone: (925) 299-8891
Fax: (925) 299-8872

July 31, 2003

Re: Second Quarter 2003 Groundwater Monitoring Report
ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, CA
URS Project #38486130

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

REPORT

SECOND QUARTER 2003 GROUNDWATER MONITORING

ARCO SERVICE STATION #5387
20200 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

Prepared for
Atlantic Richfield Company

July 28, 2003

URS

URS Corporation
500 12th Street, Suite 200
Oakland, California 94607

38486130

Date: July 28, 2003

Quarter: 2Q 03

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Former Facility No.:	5387	Address:	20200 Hesperian Boulevard, Hayward, California
ARCO Environmental Engineer:			Paul Supple
Consulting Co./Contact Person:			URS Corporation / Scott Robinson
Consultant Project No.:			38486130
Primary Agency:			Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (Second – 2003):

1. Performed second quarter groundwater monitoring event on June 27, 2003.

WORK PROPOSED FOR NEXT QUARTER (Third – 2003):

1. Perform third quarter 2003 groundwater monitoring event.
2. Prepare and submit second quarter 2003 groundwater monitoring report.

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Quarterly: Wells MW-1 through MW-3, A-4 through A-10, AR-1 and AR-2
Frequency of Groundwater Monitoring:	Quarterly
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	Natural Attenuation
Approximate Depth to Groundwater:	9.12 ft (MW-3) to 12.95 ft (A-7)
Groundwater Gradient (direction):	West
Groundwater Gradient (magnitude):	0.005 feet per foot

DISCUSSION:

TPH-g was detected in one of the twelve wells sampled this quarter at a concentration of 520 µg/L in well MW-2. Benzene was not detected in any of the wells. MTBE was detected in eight wells at concentrations ranging from 0.61 µg/L in well MW-3 to 170 µg/L in well MW-1. TAME was detected in three of the twelve wells at concentrations ranging from 2.1 µg/L (A-7) to 5.4 µg/L (MW-2).

This site is currently not available for URS in the Geotracker system. Once access is granted, monitoring data for the first and second quarter 2003 will be uploaded.

RECOMMENDATIONS:

URS recommends reducing the sampling frequency in wells A-4, A-5, A-7, A-8, A-9, and AR-1 from quarterly to semi-annually and in wells MW-3, A-6, A-10, and AR-2 from quarterly to annually.

ATTACHMENTS:

- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel Oxygenate Analytical Data
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – June 27, 2003
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody Records
- Attachment C – EDCC Report

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
AR-1	09/14/92		38.11	15.21	22.90	820	67	ND<1.0	8.8	6.7	---	---
	11/12/92			15.36	22.75	140	66	ND<0.5	4.3	3.7	---	---
	02/11/93			12.81	25.30	360	190	ND<2.5	8.6	ND<2.5	---	---
	04/14/93			11.77	26.34	420	240	5.2	30	8.7	---	---
	08/12/93			13.55	24.56	370	150	ND<2	11	ND<2	---	---
	10/26/93			13.98	24.13	240	98	ND<2	11	ND<2	---	---
	02/17/94		37.46	12.15	25.31	4,700	1,100	ND<10	140	26	---	---
	05/03/94			12.03	25.43	620	130	1.3	48	4.3	---	---
	08/17/94		37.33	12.92	24.41	3,600	630	ND<5	200	12	---	---
	11/18/94			12.41	24.92	12,100	720	6.1	337	15	---	---
	09/26/95		37.46	11.34	26.12	ND	8.3	ND	ND	ND	---	---
	12/06/95			11.87	25.59	120	20	ND	20	0.6	---	---
	02/14/96			10.48	26.98	ND	ND	ND	ND	0.52	---	---
	10/29/96			11.80	25.66	ND	ND	0.99	ND	ND	---	---
	01/29/97			11.25	26.21	ND<50	0.41	ND<0.3	ND<0.3	ND<0.3	ND<20	---
	04/30/97			12.24	25.22	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97			10.80	26.66	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97			11.90	25.56	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98			11.20	26.26	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98			12.20	25.26	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98			9.10	28.36	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98			9.80	27.66	270	2.1	ND<0.3	3.6	ND<0.5	190	---
	01/13/99			10.10	27.36	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99			11.35	26.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	1.1	2.9	---
	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.6*	---
	09/23/02	P		11.26	26.20	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	20.2	1.6
	12/09/02	P		11.35	26.11	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	26.6	---
	02/11/03[e]	P		9.91	27.55	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.7	1.2
	06/27/03	**NP**		**10.30**	**27.16**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.6**	**1.6**

Table 1
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Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
AR-2	03/30/93		38.39	11.53	26.86	390	4.1	1.6	ND<0.5	47	---	---
	04/14/93			11.87	26.52	310	18	ND<0.5	0.67	36	---	---
	08/12/93			13.59	24.80	130	16	ND<0.5	1.7	0.57	---	---
	10/26/93			14.25	24.14	110	15	ND<0.5	1.8	ND<0.5	---	---
	02/17/94			12.76	25.22	130	2.9	ND<0.5	15	0.8	---	---
	05/03/94			12.60	25.38	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	08/17/94		38.18	13.86	24.32	3,000	140	140	220	91	---	---
	11/18/94			13.33	24.85	623	10.5	10.5	27.9	8.0	---	---
	09/26/95		37.98	11.67	26.31	ND	ND	ND	ND	ND	---	---
	12/06/95			12.32	25.66	320	12	12	23	2.1	---	---
	02/14/96			10.74	27.24	ND	ND	ND	ND	0.76	---	---
	10/29/96			11.95	26.03	ND	ND	ND	ND	ND	---	---
	01/29/97			11.35	26.63	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97			12.15	25.83	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97			11.20	26.78	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97			12.14	25.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98			10.05	27.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98			12.10	25.88	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98			9.50	28.48	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98			10.45	27.53	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99			10.50	27.48	ND<50	ND<0.3	0.40	ND<0.3	0.53	ND<20	---
	04/29/99			11.48	26.50	ND<50	ND<0.3	ND<0.3	ND<0.3	0.82	ND<5	---
	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	---
	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	39*	---
	09/23/02	P		12.22	25.76	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	4.43	1.0
	12/09/02	P		12.30	25.68	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	---
	02/11/03[e]	P		10.80	27.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.75	1.8
	06/27/03	**NP**		**11.14**	**26.84**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**6.0**	**0.9**

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MW-1	08/08/86	38.36	11.25	27.11	7,040	132	8.7	439	230	---	---
	12/24/91		16.12	22.24	2,200	190	8.5	6.9	2.6	---	---
	03/10/92		13.34	25.02	2,800	270	29	56	39	---	---
	06/09/92		14.12	24.24	2,900	960	27	99	63	---	---
	09/14/92		15.34	23.02	2,600	450	ND<5.0	45	21	---	---
	11/12/92		15.46	22.90	1,600	310	7.2	22	8.9	---	---
	02/11/93		11.95	26.41	4,000	510	47	200	91	---	---
	04/14/93		11.65	26.71	1,700	260	20	100	70	---	---
	08/12/93		12.93	25.43	830	60	3.8	39	3.6	---	---
	10/26/93		14.13	24.23	8,800	140	ND<10	41	ND<10	---	---
	02/17/94	37.26	11.86	25.40	1,200	130	12	54	58	---	---
	05/03/94		11.58	25.68	---	---	---	---	---	---	---
	08/17/94	37.33	12.78	24.55	3,900	86	5.1	78	9.4	---	---
	11/18/94		12.31	25.02	6,350	112	8.4	107	35	---	---
	09/26/95	37.26	11.26	26.00	ND	ND	ND	ND	ND	---	---
	12/06/95		12.16	25.10	4,100	0.86	0.46	0.38	0.92	---	---
	02/14/96		8.53	28.73	ND	ND	0.56	ND	0.82	---	---
	10/29/96		10.23	27.03	130	ND	ND	ND	ND	---	---
	01/29/97		8.15	29.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97		8.05	29.21	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97		10.50	26.76	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97		11.15	26.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98		4.95	32.31	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98		8.10	29.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98		8.02	29.24	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	40	---
	10/22/98		9.70	27.56	230	0.43	1.9	0.99	0.99	33	---
	01/13/99		9.60	27.66	ND<50	0.43	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99		8.05	29.21	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	^31/17	---

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Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
MW-1	01/15/02			---	---	ND<50	ND<0.05	ND<0.5	ND<0.5	ND<0.5	21	---
(Cont'd)	04/24/02			---	---	160	1.5	ND<0.50	ND<0.50	ND<0.50	770*	---
	09/23/02	(a)		NM	NM	NS	NS	NS	NS	NS	NS	NS
	12/09/02	P		11.22	26.04	998	ND<0.50	ND<0.50	ND<0.50	1.37 (b)	855(d)/ 1310*	---
	02/11/03[e]	P		9.70	27.56	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	76	1.6
	06/27/03	**P**		**10.10**	**27.16**	**ND<500**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**170**	**0.8**

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MW-2	08/08/86	38.58	11.62	26.96	1,910	20.1	2.8	1.8	---	---	---
	12/24/91		16.50	22.08	23,000	1,500	1,100	480	1,400	---	---
	03/10/92		13.50	25.08	210,000	44,000	3,900	1,700	5,800	---	---
	06/09/92		14.52	24.06	33,000	2,300	370	780	2,600	---	---
	09/14/92		15.78	22.80	16,000	3,700	10	470	1,000	---	---
	11/12/92		15.98	22.60	16,000	3,800	86	470	910	---	---
	02/11/93		12.27	26.31	27,000	3,500	720	1,600	380	---	---
	04/14/93		12.01	26.57	27,000	3,500	220	2,200	5,100	---	---
	08/12/93		13.81	24.77	16,000	1,600	27	1,300	1,200	---	---
	10/26/93		14.53	24.05	12,000	1,200	ND<25	510	330	---	---
	02/17/94		12.81	25.77	15,000	1,800	21	850	540	---	---
	05/03/94		12.63	25.95	---	---	---	---	---	---	---
	08/17/94	37.99	13.69	24.30	14,000	850	13	640	270	---	---
	11/18/94	38.06	13.18	24.88	14,900	640	3.4	532	156	---	---
	09/26/95	37.99	12.23	25.76	5,100	40	25	2.5	18	---	---
	12/06/95		12.82	25.17	810	34	23	11	11	---	---
	02/14/96		10.87	27.12	420	0.75	0.54	0.64	0.53	---	---
	10/29/96		12.95	25.04	670	1.7	1.3	0.6	0.8	---	---
	01/29/97		11.15	26.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97		11.09	26.90	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97		11.70	26.29	330	ND<0.3	0.58	0.53	ND<0.5	ND<20	---
	10/22/97		11.05	26.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98		9.50	28.49	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98		11.15	26.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98		10.20	27.79	78	ND<0.3	ND<0.3	ND<0.3	ND<0.5	97	---
	10/22/98		11.10	26.89	270	0.37	2.0	0.91	0.73	26	---
	01/13/99		11.10	26.89	650	5.8	1.0	1.4	1.1	ND<20	---
	04/29/99		11.05	26.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	^23/16	---

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Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
MW-2	01/15/02			---	---	1,200	15	4.5	ND<0.5	ND<0.5	190	---
(Cont'd)	04/24/02			---	---	1,300	18	ND<10	ND<10	ND<10	170*	---
	09/23/02	P		12.15	25.84	1,440	11.2	0.730	ND<0.500	ND<1.50	228	1.6
	12/09/02	P		12.20	25.79	1,770	8.08	0.694	2.47	3.79 (b)	529(d)/ 902*	---
	02/11/03[c]	P		10.79	27.20	1,100	ND<0.50	ND<0.50	ND<0.50	0.53	71	1.2
	06/27/03	**P**		**11.20**	**26.79**	**520**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**45**	**0.8**

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Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
MW-3	08/08/86	37.77	10.61	27.16	7,450	510	549	409	1,380	---	---
	12/24/91		15.60	22.17	6,800	450	10	610	45	---	---
	03/10/92		12.90	24.87	11,000	2,500	75	400	560	---	---
	06/09/92		13.60	24.17	16,000	2,000	69	1,300	2,600	---	---
	09/14/92		14.78	22.99	14,000	630	ND<50	1,500	2,400	---	---
	11/12/92		14.92	22.85	7,400	400	ND<25	860	330	---	---
	02/11/93		11.65	26.12	8,600	580	ND<20	710	300	---	---
	04/14/93		11.16	26.61	6,900	300	8.8	580	99	---	---
	08/12/93		12.82	24.95	3,400	56	ND<5	190	ND<5	---	---
	10/26/93		13.60	24.17	2,900	42	ND<10	76	ND<10	---	---
	02/17/94	36.80	11.53	25.27	3,100	160	ND<10	36	8.6	---	---
	05/03/94		11.36	25.44	2,300	44	ND<2.5	8.0	ND<2.5	---	---
	08/17/94	36.87	12.38	24.49	1,900	7.0	ND<9.5	4.4	ND<5	---	---
	11/18/94		11.93	24.94	909	1.1	ND<0.5	0.9	4.0	---	---
	09/26/95	36.80	10.96	25.84	410	1.3	1.9	2.3	3.3	---	---
	12/06/95		11.56	25.24	---	0.9	4.6	3.0	4.3	---	---
	02/14/96		7.47	29.33	99	ND	0.49	0.46	ND	---	---
	10/29/96		9.80	27.00	250	0.7	0.6	ND	ND	---	---
	01/29/97		7.50	29.30	170	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97		12.10	24.70	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97		9.90	26.90	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97		12.10	24.70	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98		7.50	29.30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98		12.30	24.50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98		8.30	28.50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98		9.10	27.70	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99		9.50	27.30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99		5.93	30.87	ND<50	ND<0.3	0.35	ND<0.3	ND<0.5	ND<5	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
MW-3	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.9	---
(Cont'd)	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---
	09/23/02	P		10.30	26.50	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500	1.0
	12/09/02	P		10.38	26.42	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	---
	02/11/03[e]	P		8.85	27.95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6
	06/27/03	**P**		**9.12**	**27.68**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**0.61**	**0.9**

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20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-4	03/06/91	39.46	13.22	26.24	34,000	11,000	870	2,500	2,100	---	---
	12/24/91	39.86	17.60	22.26	1,900	29	1.9	25	29	---	---
	03/10/92		14.76	25.10	7,400	37	ND<0.60	11	73	---	---
	06/09/92		15.63	24.23	4,500	3.2	1.5	37	16	---	---
	09/14/92		16.83	23.03	1,300	ND<2.5	2.5	61	6.8	---	---
	11/12/92		16.97	22.89	610	7.2	0.98	34	0.97	---	---
	02/11/93		13.43	26.43	740	2.4	ND<0.5	5.0	3.5	---	---
	04/14/93		13.06	26.80	380	ND<0.5	ND<0.5	10	1.6	---	---
	08/12/93		14.94	24.92	1,200	0.93	ND<0.5	0.91	ND<0.5	---	---
	10/26/93		15.52	24.34	160	ND<0.5	ND<0.5	1.0	ND<0.5	---	---
	02/17/94	39.46	14.02	25.44	320	0.5	ND<0.5	28	0.9	---	---
	05/03/94		13.85	25.61	130	ND<0.5	ND<0.5	1.1	ND<0.5	---	---
	08/17/94	39.53	14.95	39.53	62	34.58	ND<0.5	ND<0.5	ND<0.5	---	---
	11/18/94		14.46	25.07	98	1.3	0.6	ND<0.5	ND<0.5	---	---
	12/06/95		13.82	25.71	ND	0.6	ND	ND	ND	---	---
	02/14/96		11.24	28.29	ND	ND	2.3	ND	0.71	---	---
	10/29/96		13.50	26.03	140	ND	ND	ND	ND	---	---
	01/29/97		12.65	26.88	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97		13.97	25.56	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97		12.70	26.83	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97		13.95	25.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98		11.90	27.63	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98		13.92	25.61	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98		10.80	28.73	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98		12.60	26.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99		12.60	26.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99		12.61	26.92	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-4	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.2	---
(Cont'd)	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---
	09/23/02	(a)		NM	NM	NS	NS	NS	NS	NS	NS	NS
	12/09/02	P		13.36	26.17	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	---
	02/11/03[e]	P		11.82	27.71	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.53	1.8
	06/27/03	**P**		**12.12**	**27.41**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.2**

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20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-5	12/24/91	38.94	16.85	22.09	1,600	21	ND<0.30	32	52	---	---
	03/10/92		13.83	25.11	1,000	1.6	ND<0.30	43	100	---	---
	06/09/92		14.91	24.03	680	34	ND<1.5	14	16	---	---
	09/14/92		16.14	22.80	770	12	ND<0.30	51	65	---	---
	11/12/92		16.35	22.59	520	3.0	ND<2.5	29	36	---	---
	02/11/93		13.21	25.73	150	1.6	0.96	5.1	1.5	---	---
	04/14/93		12.97	25.97	190	5.4	ND<0.5	1.5	0.97	---	---
	08/12/93		14.12	24.82	230	1.7	ND<0.5	5.3	0.94	---	---
	10/26/93		14.72	24.22	190	2.8	ND<0.5	5.5	2.0	---	---
	02/17/94	38.47	13.20	25.27	340	ND<0.5	ND<0.5	13	2.9	---	---
	05/03/94		13.08	25.39	170	1.4	ND<0.5	4.0	1.9	---	---
	08/17/94	38.54	14.18	24.36	270	0.6	ND<0.5	7.3	1.1	---	---
	11/18/94		13.73	24.81	338	---	ND<0.5	4.6	ND<0.5	---	---
	09/26/95	38.47	12.44	26.03	ND	0.63	1.1	ND	1.2	---	---
	12/06/95		12.92	25.55	ND	ND	ND	ND	ND	---	---
	02/14/96		10.76	27.71	ND	ND	2.0	ND	1.1	---	---
	10/29/96		12.35	26.12	ND	ND	ND	ND	ND	---	---
	01/29/97		10.85	27.62	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97		13.56	24.91	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97		11.80	26.67	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97		12.20	26.27	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98		10.12	28.35	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98		13.50	24.97	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98		10.20	28.27	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98		11.50	26.97	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99		10.15	28.32	ND<50	0.32	0.38	ND<0.3	ND<0.5	ND<20	---
	04/29/99		11.50	26.97	ND<50	ND<0.3	ND<0.3	ND<0.3	0.58	ND<5	---

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20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-5	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.0	---
(Cont'd)	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.2*	---
	09/23/02	P		12.55	25.92	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	1.30	1.0
	12/09/02	P		12.60	25.87	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	---
	02/11/03[e]	P		11.37	27.10	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.97	1.2
	06/27/03	**P**		**11.55**	**26.92**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**0.98**	**1.5**

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Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-6	12/24/91	39.07	16.88	22.19	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---
	03/10/92		13.73	25.34	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---
	06/09/92		14.95	24.12	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---
	09/14/92		16.20	22.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	11/12/92		16.35	22.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	02/11/93		13.04	26.03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	04/14/93		12.23	26.84	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	08/12/93		14.18	24.89	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	10/26/93		14.85	24.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	05/03/94		13.66	25.41	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	08/17/94	38.78	14.34	24.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	11/18/94		13.76	25.02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	09/26/95		12.56	26.22	ND	ND	ND	ND	ND	---	---
	12/06/95		13.18	25.60	ND	ND	ND	ND	ND	---	---
	02/14/96		12.46	26.32	ND	ND	ND	ND	ND	---	---
	10/29/96		12.40	26.38	50	ND	ND	ND	ND	---	---
	01/29/97		13.85	24.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97		12.49	26.29	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97		12.10	26.68	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97		15.20	23.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98		13.80	24.98	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98		12.45	26.33	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98		10.30	28.48	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98		11.10	27.68	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99		10.40	28.38	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99		13.80	24.98	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---

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Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-6	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.7	---
(Cont'd)	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---
	09/23/02	P		12.61	26.17	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500	1.4
	12/09/02	P		12.67	26.11	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	---
	02/11/03[e]	P		11.21	27.57	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0
	06/27/03	**P**		**11.60**	**27.18**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**5.0**

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20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-7	12/24/91	39.95	18.11	21.84	10,000	88	16	170	610	---	---
	03/10/92		15.30	24.65	320	9.3	0.54	8.8	34	---	---
	06/09/92		16.12	23.83	340	11	1.1	8.9	26	---	---
	09/14/92		17.35	22.60	510	12	ND<2.0	30	51	---	---
	11/12/92		17.47	22.48	760	17	0.83	50	73	---	---
	02/11/93		13.80	26.15	260	20	1.0	11	21	---	---
	04/14/93		13.60	26.35	1,300	89	2.1	48	87	---	---
	08/12/93		15.54	24.41	360	9.0	ND<0.50	13	9.0	---	---
	10/26/93		16.28	23.67	99	1.7	ND<0.50	4.0	3.0	---	---
	02/17/94	39.38	14.44	24.94	1,300	38	ND<1	35	25	---	---
	05/03/94		14.34	25.04	330	8.1	ND<0.5	7.8	3.7	---	---
	08/17/94	39.45	15.40	24.05	350	2.2	ND<0.5	9.6	3.6	---	---
	11/18/94		14.95	24.50	412	1.3	ND<0.5	6.2	2	---	---
	09/26/95	39.38	13.92	25.46	ND	ND	ND	ND	ND	---	---
	12/06/95		14.42	24.96	ND	ND	ND	ND	ND	---	---
	02/14/96		12.38	27.00	ND	ND	1.1	ND	0.59	---	---
	10/29/96		12.33	27.05	ND	ND	ND	ND	ND	---	---
	01/29/97		13.10	26.28	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97		11.70	27.68	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97		13.25	26.13	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97		14.42	24.96	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98		13.00	26.38	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98		11.65	27.73	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98		11.20	28.18	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98		13.75	25.63	51	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99		14.45	24.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99		13.74	25.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---

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ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-7	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.8	---
(Cont'd)	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	7.2*	---
	09/23/02	P		13.78	25.60	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	3.48	0.8
	12/09/02	P		13.97	25.41	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	---
	02/11/03[e]	P		12.35	27.03	54	ND<0.50	ND<0.50	ND<0.50	ND<0.50	21	1.7
	06/27/03	**P**		**12.95**	**26.43**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**9.4**	**1.3**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-8	09/14/92		37.23	14.19	23.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	11/12/92			14.35	22.88	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	02/11/93			11.25	25.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	04/14/93			12.33	24.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	08/12/93			12.41	24.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	10/26/93			13.02	24.21	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	02/17/94		36.76	11.47	25.29	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	05/03/94			11.35	25.41	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	08/17/94		36.84	12.34	24.50	ND<50	ND<0.5	1.7	ND<0.5	1.4	---	---
	11/18/94			11.90	24.94	ND<50	1.0	ND<0.5	ND<0.5	ND<0.5	---	---
	09/26/95		36.76	10.94	25.82	ND<50	ND	ND	ND	ND	---	---
	12/06/95			11.42	25.34	ND<50	ND	ND	ND	ND	---	---
	02/14/96			8.80	27.96	ND<50	ND	0.48	ND	ND	---	---
	10/29/96			11.30	25.46	ND<50	ND	ND	ND	ND	---	---
	01/29/97			7.60	29.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97			10.54	26.22	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97			11.20	25.56	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97			12.14	24.62	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98			4.43	32.33	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98			10.55	26.21	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98			9.07	27.69	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98			12.12	24.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99			9.60	27.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99			9.08	27.68	ND<50	ND<0.3	ND<0.3	ND<0.3	1.5	ND<5	---
	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.6	---
	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---
	09/23/02	P		10.75	26.01	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500	1.0
	12/09/02	P		10.81	25.95	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	---
	02/11/03[e]	P		9.90	26.86	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.4
	06/27/03	**P**		**9.73**	**27.03**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**2.0**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-9	09/14/92		38.71	16.12	22.59	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	11/12/92			16.29	22.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	02/11/93			12.31	26.40	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	04/14/93			12.01	26.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	08/12/93			13.90	24.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	10/26/93			14.86	23.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	02/17/94		38.19	12.99	25.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	08/17/94			14.03	24.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	11/18/94		37.24	13.44	23.80	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	09/26/95			12.43	25.81	ND<50	ND<0.5	ND	ND	ND	---	---
	12/06/95		38.19	13.14	25.05	ND<50	ND<0.5	ND	ND	ND	---	---
	02/14/96			9.05	29.14	ND<50	ND	1.8	0.49	0.82	---	---
	10/29/96			12.85	25.34	ND<50	ND	ND	ND	ND	---	---
	01/29/97			9.02	29.17	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/30/97			12.05	26.14	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---
	07/31/97			12.18	26.01	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	10/22/97			7.45	30.74	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	01/28/98			21.25	16.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98			12.10	26.09	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98			10.40	27.79	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98			1.55	24.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99			12.05	26.14	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99			7.43	30.76	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.3	---
	04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---
	09/23/02	P		12.35	25.84	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500	1.6
	12/09/02	P		12.37	25.82	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	---
	02/11/03[e]	P		10.97	27.22	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.0
	06/27/03	**P**		**11.41**	**26.78**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**2.9**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled		Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
A-10	12/07/92		38.94	16.81	22.13	660	30	ND<2.5	ND<2.5	ND<2.5	---	---
	02/11/93			13.15	25.79	210	ND<0.5	0.97	ND<0.5	ND<0.5	---	---
	04/14/93			12.19	26.75	770	ND<0.5	3.0	0.76	1.9	---	---
	08/12/93			14.87	24.07	390	ND<0.5	ND<0.5	ND<0.5	0.84	---	---
	10/26/93			15.65	23.29	290	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	02/17/94		38.66	14.16	24.50	52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	05/03/94			14.00	24.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	08/17/94		38.72	15.08	23.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	11/18/94			14.68	24.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
	09/26/95		38.66	13.58	25.08	ND	ND	ND	ND	ND	---	---
	12/06/95			14.24	24.42	ND	ND	ND	ND	ND	---	---
	02/14/96			6.70	31.96	ND	ND	ND	ND	ND	---	---
	10/29/96			14.10	24.56	ND	ND	ND	ND	1.1	---	---
	01/29/97			11.20	24.46	ND<50	0.41	4.8	0.6	4.4	37	---
	04/30/97			12.66	26.00	ND<20	0.40	4.2	0.5	3.8	50	---
	07/31/97			13.20	25.46	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/22/98			12.60	26.06	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	07/08/98			8.08	30.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	10/22/98			11.15	27.51	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/13/99			9.60	29.06	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---
	04/29/99			11.15	27.51	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---
	01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	---
	04/24/02			NM	NM	NS	NS	NS	NS	NS	NS	---
	09/23/02			DRY	DRY	NS	NS	NS	NS	NS	NS	NS
	12/19/02	P		12.75	25.91	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5 (c)	---
	02/11/03[e]	P		12.21	26.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.9	1.3
	06/27/03	**P**		**12.66**	**26.00**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**0.99**	**0.8**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

TPH	= Total Petroleum Hydrocarbons analyzed using EPA Method 8015B Modified (prior to 2/11/03).
MTBE	= Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted (prior to 2/11/03).
ND <	= Not detected above laboratory reporting limits.
NM	= Not Measured
NS	= Not Sampled
P	= Purge
NP	= No Purge
" --- "	= Not analyzed/Not available
µg/L	= Micrograms per liter
*	= Analyzed by EPA Method 8260B.
^	= Analytical results as measured by EPA Methods 8020 / 8260.
(a)	= well inaccessible
(b)	= The analyte concentration may be artificially elevated due to coeluting compounds or components.
(c)	= The closing calibration was outside acceptance limits by 2%. This should be considered in evaluating the results. The average % difference for all analytes met the 15% requirement and the QC suggests that the calibration linearity is not a factor.
(d)	= Estimated value. The reported value exceeds the calibration range of the analysis.
(e)	=TPH-g, BTEX, and MTBE analyzed by EPA method 8260 B beginning first quarter monitoring event (2/11/03)
Source	=The data in this table prior to September 2002 was provided to URS by Group Environmental Management Company and its previous consultants. URS has not verified the accuracy of this data

Table 2

Groundwater Flow Direction and Gradient

ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
04/24/02	-	-
09/23/02	West	0.004
12/09/02	West	0.003
02/11/03	West	0.007
06/27/03	**West**	**0.005**

Table 3

Fuel Oxygenate Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California

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)
MW-1	02/11/03	ND<100	ND<20	76	ND<0.50	ND<0.50	ND<0.50	NA	NA
MW-1	**06/27/03**	**ND<1,000**	**ND<200**	**170**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**ND<5.0**
MW-2	02/11/03	ND<100	ND<20	71	ND<0.50	ND<0.50	13	NA	NA
MW-2	**06/27/03**	**ND<100**	**ND<20**	**45**	**ND<0.50**	**ND<0.50**	**5.4**	**ND<0.50**	**ND<0.50**
MW-3	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
MW-3	**06/27/03**	**ND<100**	**ND<20**	**0.61**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
A-4	02/11/03	ND<100	ND<20	0.53	ND<0.50	ND<0.50	ND<0.50	NA	NA
A-4	**06/27/03**	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
A-5	02/11/03	ND<100	ND<20	0.97	ND<0.50	ND<0.50	ND<0.50	NA	NA
A-5	**06/27/03**	**ND<100**	**ND<20**	**0.98**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
A-6	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
A-6	**06/27/03**	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
A-7	02/11/03	ND<100	ND<20	21	ND<0.50	6.5	ND<0.50	NA	NA
A-7	**06/27/03**	**ND<100**	**ND<20**	**9.4**	**ND<0.50**	**ND<0.50**	**2.1**	**ND<0.50**	**ND<0.50**
A-8	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
A-8	**06/27/03**	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
A-9	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
A-9	**06/27/03**	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
A-10	02/11/03	ND<100	ND<20	1.9	ND<0.50	ND<0.50	ND<0.50	NA	NA
A-10	**06/27/03**	**ND<100 (a)**	**ND<20**	**0.99**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
AR-1	02/11/03	ND<100	ND<20	4.7	ND<0.50	ND<0.50	ND<0.50	NA	NA
AR-1	**06/27/03**	**ND<100 (a)**	**ND<20**	**1.6**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
AR-2	02/11/03	ND<100	ND<20	0.75	ND<0.50	ND<0.50	ND<0.50	NA	NA
AR-2	**06/27/03**	**ND<100 (a)**	**ND<20**	**6.0**	**ND<0.50**	**ND<0.50**	**2.6**	**ND<0.50**	**ND<0.50**

Table 3

Fuel Oxygenate Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California

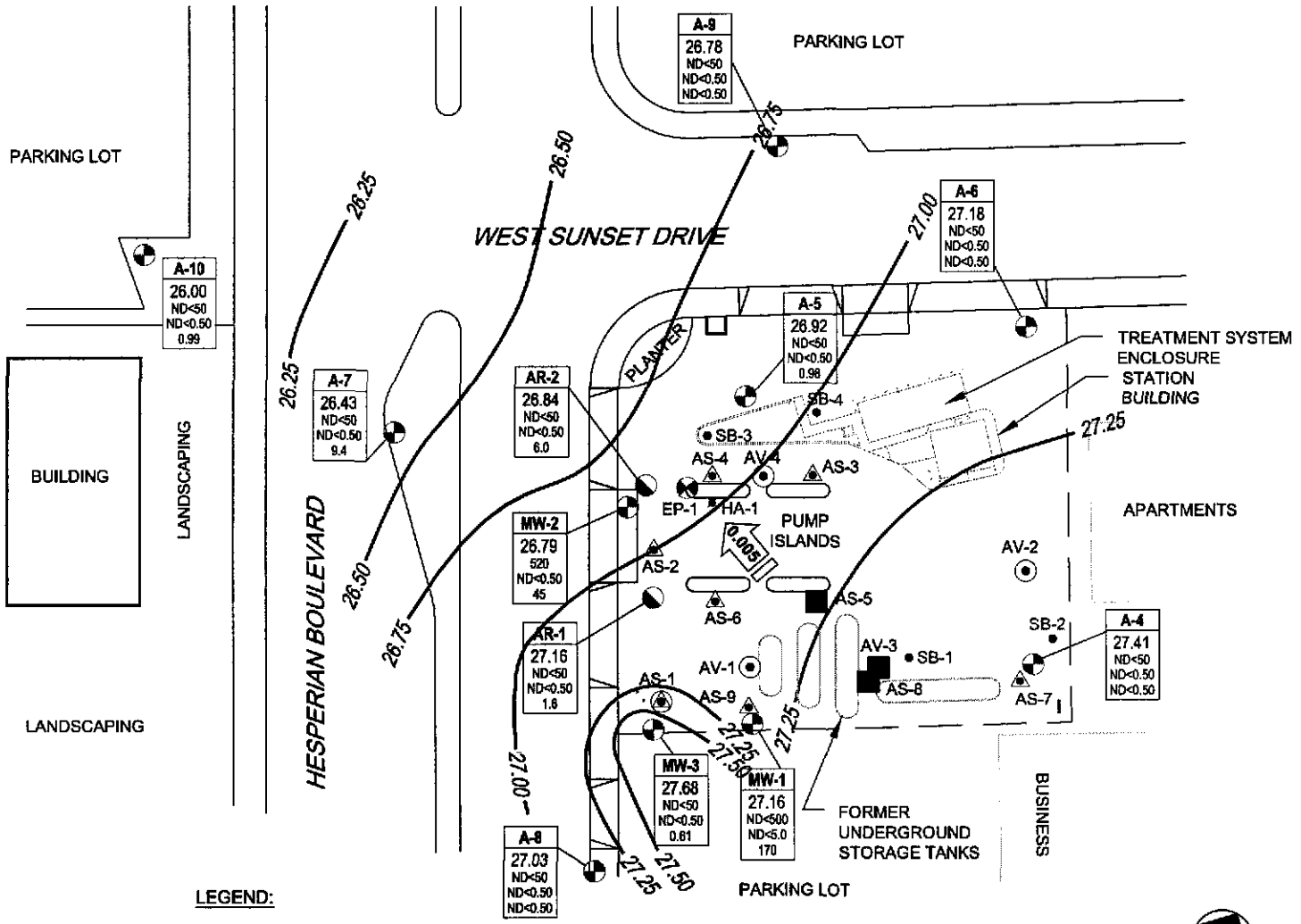
Note: All fuel oxygenate compounds analyzed using EPA Method 8260B

Abbreviations:

TBA	= tert-Butyl alcohol
MTBE	= Methyl tert-butyl ether
DIPE	= Di-isopropyl ether
ETBE	= Ethyl tert butyl ether
TAME	= tert-Amyl methyl ether
1,2-DCA	= 1,2-Dichloroethane
EDB	= 1,2-Dibromoethane
µg/L	= micrograms per liter
ND<	= Less than laboratory reporting limit
NA	= Data not available, not analyzed, or not applicable

(a) = The continuing calibration verification was outside of client contractual acceptance limits by 11.7% low. However, it was within method acceptance limits. The data should be useful for its intended purpose.

X:\x_env_waste\BP GEM\Sites\Scott Robinson\Paul Supple\5387\Monitoring\Qtr. 2, 2003\Drawings\new-GWEC-AS_6-27.dwg, 07/30/2003 04:45:32 PM, JKMT, URS



LEGEND:

- ABANDONED MONITORING WELL LOCATION
- MONITORING WELL LOCATION
- GROUNDWATER EXTRACTION WELL LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- AIR SPARGE WELL LOCATION
- DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL LOCATION
- AIR SPARGE WELL LOCATION
- DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL LOCATION
- EXTRACTION POINT
- 26.00 APPOXIMATE GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MSL)
- 0.007 GROUNDWATER FLOW DIRECTION AND GRADIENT (FEET/FOOT)

Well	WELL DESIGNATION
ELEV	GROUNDWATER ELEVATION
TPH-g Benzene MTBE	CONCENTRATIONS OF TPH-g, BENZENE AND MTBE IN MICROGRAMS PER LITER (µg/L)
*	NOT USED IN GROUNDWATER ELEVATION CONTOURS
ND<	NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS

NORTH

0 50 100

SCALE IN FEET

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

URS

Project No. 38486130

ARCO Service Station 5387
20200 Hesperian Boulevard
Hayward, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP
Second Quarter 2003 (June 27, 2003)

FIGURE
1

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 # 030627-BA1 Date 6/27/03 Client Arco 5387

Site 20200 Hesperian Blvd, Hayward

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.)	All ✓ Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	2					10.10	28.58	TOC	2x2 VAULT
MW-2	2					11.20	28.39		
MW-3	2					9.12	27.98		2x2 VAULT
A-4	3					12.12	34.58		Ded. Tubing
A-5	3					11.55	29.52		
A-6	3					11.60	34.40		
A-7	3					12.95	35.03		
A-8	2					9.73	33.45		
A-9	2					11.41	33.13		
A-10	2					12.06	33.33		~~Bent~~ Bent ~~casing~~ casing
JP AR-1	6					10.30	33.92		2x2 VAULT Ded. Tubi
JP AR-2	6					11.14	35.17	→	2x2 VAULT

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Aleorn	Date: 6/27/03
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 28.58	Depth to Water: 10.10
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (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^2 * 0.163

Purge Method: Bailer / Disposable Bailer / (Middleburg) / Electric Submersible / Extraction Pump / Other: ____

Sampling Method: Bailer / (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.

3.0 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 9.0 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1351	69.3	6.8	1,022	3.0	cloudy brown
1354	68.4	6.8	1,029	6.0	"
1359	68.5	6.8	1,036	9.0	cloudy gray

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Time: 1400 Sampling Date: 6/27/03

Sample I.D.: MW-1 Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge):	0.8	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 28.39	Depth to Water: 11.20
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer (Disposable Bailer) ~~Middleburg~~ Electric Submersible Extraction Pump Other: _____

Sampling Method: Bailer (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.

2.75 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 8.25 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1300	72.5	6.7	1,004	2.75	cloudy gray
1304	69.7	6.8	989	5.5	clear
1308	70.2	6.8	999	8.25	cloudy gray

Did well dewater? Yes No Gallons actually evacuated: 8.25

Sampling Time: 1310 Sampling Date: 6/27/03

Sample I.D.: MW-2 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	0.8	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 27.98	Depth to Water: 9.12
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (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^2 * 0.163

Purge Method: ~~Bailer~~ (Disposable Bailer) ~~Bladder Pump~~ ~~Electric Submersible~~ Extraction Pump Other: _____

Sampling Method: Bailer (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.

3.0 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 9.0 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1321	68.8	6.8	957	3.0	cloudy gray
1331	69.2	6.8	929	6.0	"
1339	69.9	6.8	1,009	9.0	"

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Time: 1340 Sampling Date: 6/27/03

Sample I.D.: MW-3 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:) 0.9	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: A-4	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 34.58	Depth to Water: 12.12
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / ~~Middleburg~~ / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / (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.

8.5 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 25.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1226	72.1	6.8	983	8.5	cloudy brown
1228	69.9	6.7	994	17.0	clear
1230	68.8	6.7	999	25.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 25.5

Sampling Time: 1235 Sampling Date: 6/27/03

Sample I.D.: A-4 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:		mg/L	(Post-purge:)	1.2 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: A-5	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 29.52	Depth to Water: 11.55
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (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^2 * 0.163

Purge Method: Bailer; Disposable Bailer; ~~Middleburg~~; (Electric Submersible); Extraction Pump; Other: _____

Sampling Method: Bailer; (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.

6.75 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 20.25 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1242	73.5	6.8	969	7.0	cloudy brown
1243	70.9	6.8	969	14.0	"
1244	69.8	6.8	985	21.0	"

Did well dewater? Yes (No) Gallons actually evacuated: 21.0

Sampling Time: 1245 Sampling Date: 6/27/03

Sample I.D.: A-5 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:) 1.5	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: A-6	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 34.40	Depth to Water: 11.40
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / (Electric Submersible) Extraction Pump / Other: ____

Sampling Method: Bailer / (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.

8.5 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 25.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1151	72.2	6.9	813	8.5	cloudy brown
	Switched to ES			470	
1209	74.5	6.9	866	17.0	"
1211	70.3	6.9	877	25.5	

Did well dewater? Yes (No)		Gallons actually evacuated: 25.5	
Sampling Time: 1215		Sampling Date: 6/27/03	
Sample I.D.: A-6		Laboratory: Pace (Sequoia) Other ____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D	Other: Oxys + Ethanol ALL by 8260		
D.O. (if req'd): Pre-purge:	mg/L	(Post-purge:)	5.0 mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: A-7	Well Diameter: ~~2~~ (3) 4 6 8 ____
Total Well Depth: 35.03	Depth to Water: 12.95
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (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^2 * 0.163

Purge Method: Bailer / Disposable Bailer / (Middleburg) / Electric Submersible / Extraction Pump / Other: ____

Sampling Method: Bailer / (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.

8.25 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 24.75 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1029	72.6	7.0	1,070	8.25	clear, brown-gray,
1038	71.4	6.8	1,078	16.5	clear
1047	71.3	6.8	1,075	24.75	"

Did well dewater? Yes (No) Gallons actually evacuated: 24.75

Sampling Time: 1050 Sampling Date: 6/27/03

Sample I.D.: A-7 Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:) 1.3	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: A-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 33.45	Depth to Water: 9.73
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / (Middleburg) / Electric Submersible / Extraction Pump / Other: ____

Sampling Method: Bailer / (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.

4.0 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 12.0 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1103	71.6	6.8	1,018	4.0	cloudy, brown-gray
1108	71.3	6.8	1,015	8.0	clear, gray
1113	70.0	6.8	1,008	12.0	"

Did well dewater? Yes (No) Gallons actually evacuated: 12

Sampling Time: 1115 Sampling Date: 6/27/03

Sample I.D.: A-8 Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	2.0	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: A-9	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 33.13	Depth to Water: 11.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (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^2 * 0.163

Purge Method: Bailer / Disposable Bailer / (Middleburg) / Electric Submersible / Extraction Pump / Other: ____

Sampling Method: Bailer / (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.

3.5 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 10.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1127	72.6	6.8	859	3.5	cloudy brown
1130	70.2	6.8	819	7.0	"
1133	70.4	6.7	819	10.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 10.5

Sampling Time: 1135 Sampling Date: 6/27/03

Sample I.D.: A-9 Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	2.9	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: A-10	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 33.33	Depth to Water: 12.66
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (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^2 * 0.163

Purge Method: Bailer; ~~Disposable Bailer~~; (Middleburg); Electric Submersible; Extraction Pump; Other: _____

Sampling Method: Bailer; (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.

3.5 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 10.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
0949	73.5	6.9	1,052	3.5	clear, grass debris
0951	69.8	7.2	1,012	7.0	"
0954	69.1	7.2	1,011	10.5	"
Note: Unable to put pump more than about 15' down due to bent casing - well recharges good enough to use MB Pump.					

Did well dewater? Yes (No) Gallons actually evacuated: 10.5

Sampling Time: 0955 Sampling Date: 6/27/03

Sample I.D.: A-10 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	0.8 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: AR-1	Well Diameter: 2 3 4 (6) 8 ____
Total Well Depth: 33.92	Depth to Water: 10.30
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / ~~Disposable Bailer~~ / Middleburg / Electric Submersible / Extraction Pump / Other: ____

Sampling Method: Bailer / (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.

No Purge ____ (1 Case Volume (Gals.)) X ____ (Specified Volumes) = ____ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
0835	71.9	7.0	1,006	—	clear

Did well dewater? Yes No — Gallons actually evacuated: —

Sampling Time: 0835 — Sampling Date: 6/27/03

Sample I.D.: AR-1 — Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys + Ethanol All by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	1.6	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030627-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 6/27/03
Well I.D.: AR-2	Well Diameter: 2 3 4 (6) 8 ____
Total Well Depth: 35.17	Depth to Water: 11.14
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (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^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / (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.

No Purge ____ (1 Case Volume (Gals.)) X ____ (Specified Volumes) = ____ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
0815	72.2	6.4	1,115	—	clear

Did well dewater? Yes No		Gallons actually evacuated: —	
Sampling Time: 0815		Sampling Date: 6/27/03	
Sample I.D.: AR-2		Laboratory: Pace (Sequoia) Other_____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D	Other: Oxys + Ethanol All by 8260		
D.O. (if req'd):	Pre-purge: ____ mg/L	Post-purge: 0.9	mg/L
O.R.P. (if req'd):	Pre-purge: ____ mV	Post-purge:	mV

WELLHEAD INSPECTION CHECKLIST

Client Arco 5387 Date 6/27/03

Site Address 20203 Hesperian Blvd, Hayward

Job Number 030627-BA1 Technician Brian Alcorn

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1		✓		✓	✓	①		✓
MW-2		✓		✓	✓			
MW-3								✓
A-4				✓	✓			
A-5					✓			✓
A-6					✓			
A-7				✓				
A-8	✓							
A-9		✓						
A-10	✓							
AR-1								✓
AR-2					✓			✓

NOTES: ① Clipped hole in chain-link fence to access vault.

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 BLAINE 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:

5387
Station #

20200 Hesperian Blvd, Hayward
Station Address

Total Gallons Collected From Groundwater Monitoring Wells: ____________

added equip. rinse water ________ any other adjustments ________

TOTAL GALS. RECOVERED 135 loaded onto BTS vehicle # 52

BTS event # 030627-BA1 time 1415 date 6/27/03

signature [signature]

* *

REC'D AT ________ time ________ date ___/___/___

unloaded by 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 Group Environmental Management Company have been reviewed and verified by that laboratory.

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 766-9600
FAX (408) 782-6308
www.sequoialabs.com

22 July, 2003

Scott Robinson
URS Corporation [Arco]
500 12th Street, Suite 100
Oakland, CA 94607

RE: ARCO #5387, Hayward, CA
Work Order: MMG0042

Enclosed are the results of analyses for samples received by the laboratory on 07/01/03 11:12. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa Allen

Theresa Allen
Project Manager

CA ELAP Certificate #1210

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMG0042-01	Water	06/27/03 14:00	07/01/03 11:12
MW-2	MMG0042-02	Water	06/27/03 13:10	07/01/03 11:12
MW-3	MMG0042-03	Water	06/27/03 13:40	07/01/03 11:12
A-4	MMG0042-04	Water	06/27/03 12:35	07/01/03 11:12
A-5	MMG0042-05	Water	06/27/03 12:45	07/01/03 11:12
A-6	MMG0042-06	Water	06/27/03 12:15	07/01/03 11:12
A-7	MMG0042-07	Water	06/27/03 10:50	07/01/03 11:12
A-8	MMG0042-08	Water	06/27/03 11:15	07/01/03 11:12
A-9	MMG0042-09	Water	06/27/03 11:35	07/01/03 11:12
A-10	MMG0042-10	Water	06/27/03 09:55	07/01/03 11:12
AR-1	MMG0042-11	Water	06/27/03 08:35	07/01/03 11:12
AR-2	MMG0042-12	Water	06/27/03 08:15	07/01/03 11:12

There were no custody seals that were received with this project.

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMG0042-01) Water Sampled: 06/27/03 14:00 Received: 07/01/03 11:12									
Ethanol	ND	1000	ug/l	10	3G09033	07/09/03	07/09/03	EPA 8260B	
tert-Butyl alcohol	ND	200	"	"	"	"	"	"	
Methyl tert-butyl ether	**170**	5.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	500	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*78-129*		"	"	"	"	
MW-2 (MMG0042-02) Water Sampled: 06/27/03 13:10 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09033	07/09/03	07/10/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**45**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**5.4**	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	**520**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MMG0042-03) Water Sampled: 06/27/03 13:40 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09033	07/09/03	07/10/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.61**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*78-129*		"	"	"	"	
A-4 (MMG0042-04) Water Sampled: 06/27/03 12:35 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09033	07/09/03	07/10/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-5 (MMG0042-05) Water Sampled: 06/27/03 12:45 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09033	07/09/03	07/10/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.98**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*78-129*		"	"	"	"	
A-6 (MMG0042-06) Water Sampled: 06/27/03 12:15 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09033	07/09/03	07/10/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-7 (MMG0042-07) Water Sampled: 06/27/03 10:50 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09033	07/09/03	07/10/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**9.4**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**2.1**	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.8 %*	*78-129*		"	"	"	"	
A-8 (MMG0042-08) Water Sampled: 06/27/03 11:15 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09033	07/09/03	07/10/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-9 (MMG0042-09) Water Sampled: 06/27/03 11:35 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G10011	07/10/03	07/10/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*78-129*		"	"	"	"	
A-10 (MMG0042-10) Water Sampled: 06/27/03 09:55 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09035	07/09/03	07/10/03	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.99**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94.8 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AR-1 (MMG0042-11) Water Sampled: 06/27/03 08:35 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09035	07/09/03	07/10/03	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**1.6**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96.8 %*	*78-129*		"	"	"	"	
AR-2 (MMG0042-12) Water Sampled: 06/27/03 08:15 Received: 07/01/03 11:12									
Ethanol	ND	100	ug/l	1	3G09035	07/09/03	07/10/03	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**6.0**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**2.6**	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.0 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

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 3G09033 - EPA 5030B P/T										
Blank (3G09033-BLK1)				Prepared & Analyzed: 07/09/03						
Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.02*		"	*5.00*		*100*	*78-129*			
Laboratory Control Sample (3G09033-BS1)				Prepared & Analyzed: 07/09/03						
Methyl tert-butyl ether	19.7	0.50	ug/l	20.0		98.5	63-137			
Benzene	20.7	0.50	"	20.0		104	78-124			
Toluene	21.4	0.50	"	20.0		107	78-129			
Surrogate: 1,2-Dichloroethane-d4	*4.93*		"	*5.00*		*98.6*	*78-129*			
Laboratory Control Sample (3G09033-BS2)				Prepared & Analyzed: 07/09/03						
Methyl tert-butyl ether	7.88	0.50	ug/l	9.92		79.4	63-137			
Benzene	5.25	0.50	"	6.40		82.0	78-124			
Toluene	34.6	0.50	"	29.7		116	78-129			
Gasoline Range Organics (C6-C10)	398	50	"	440		90.5	70-113			
Surrogate: 1,2-Dichloroethane-d4	*5.18*		"	*5.00*		*104*	*78-129*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 766-9600
FAX (408) 782-6308
www.sequoialabs.com

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

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 3G09033 - EPA 5030B P/T										
Matrix Spike (3G09033-MS1)	**Source: MMG0042-01**			Prepared: 07/09/03 Analyzed: 07/10/03						
Methyl tert-butyl ether	257	5.0	ug/l	99.2	170	87.7	63-137			
Benzene	53.8	5.0	"	64.0	ND	84.1	78-124			
Toluene	326	5.0	"	297	2.9	109	78-129			
Gasoline Range Organics (C6-C10)	3760	500	"	4400	350	77.5	70-113			
Surrogate: 1,2-Dichloroethane-d4	*4.96*		"	*5.00*		*99.2*	*78-129*			
Batch 3G09035 - EPA 5030B P/T										
Blank (3G09035-BLK1)				Prepared: 07/09/03 Analyzed: 07/10/03						
Ethanol	ND	100	ug/l							O-12
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*4.74*		"	*5.00*		*94.8*	*78-129*			
Laboratory Control Sample (3G09035-BS1)				Prepared & Analyzed: 07/09/03						
Methyl tert-butyl ether	9.67	0.50	ug/l	10.0		96.7	63-137			
Benzene	9.89	0.50	"	10.0		98.9	78-124			
Toluene	10.2	0.50	"	10.0		102	78-129			
Surrogate: 1,2-Dichloroethane-d4	*4.86*		"	*5.00*		*97.2*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

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 3G09035 - EPA 5030B P/T										
Laboratory Control Sample (3G09035-BS2)				Prepared & Analyzed: 07/09/03						
Gasoline Range Organics (C6-C10)	416	50	ug/l	440		94.5	70-113			
Surrogate: 1,2-Dichloroethane-d4	*4.89*		"	*5.00*		*97.8*	*78-129*			
Matrix Spike (3G09035-MS1)	**Source: MMG0078-02**			Prepared & Analyzed: 07/09/03						
Methyl tert-butyl ether	468	5.0	ug/l	99.2	400	68.5	63-137			
Benzene	100	5.0	"	64.0	56	68.8	78-124			QM-07
Toluene	309	5.0	"	297	6.9	102	78-129			
Gasoline Range Organics (C6-C10)	5010	500	"	4400	700	98.0	70-113			
Surrogate: 1,2-Dichloroethane-d4	*4.66*		"	*5.00*		*93.2*	*78-129*			
Matrix Spike Dup (3G09035-MSD1)	**Source: MMG0078-02**			Prepared & Analyzed: 07/09/03						
Methyl tert-butyl ether	501	5.0	ug/l	99.2	400	102	63-137	6.81	13	
Benzene	108	5.0	"	64.0	56	81.2	78-124	7.69	12	
Toluene	317	5.0	"	297	6.9	104	78-129	2.56	10	
Gasoline Range Organics (C6-C10)	5220	500	"	4400	700	103	70-113	4.11	9	
Surrogate: 1,2-Dichloroethane-d4	*4.72*		"	*5.00*		*94.4*	*78-129*			
Batch 3G10011 - EPA 5030B P/T										
Blank (3G10011-BLK1)				Prepared & Analyzed: 07/10/03						
Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.41*		"	*5.00*		*108*	*78-129*			

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885 Jarvis Drive
Morgan Hill, CA 95037
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FAX (408) 782-6308
www.sequoialabs.com

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

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 3G10011 - EPA 5030B P/T										
Laboratory Control Sample (3G10011-BS1)				Prepared & Analyzed: 07/10/03						
Methyl tert-butyl ether	10.3	0.50	ug/l	10.0		103	63-137			
Benzene	9.17	0.50	"	10.0		91.7	78-124			
Toluene	9.35	0.50	"	10.0		93.5	78-129			
Surrogate: 1,2-Dichloroethane-d4	*5.70*		*"*	*5.00*		*114*	*78-129*			
Laboratory Control Sample (3G10011-BS2)				Prepared & Analyzed: 07/10/03						
Gasoline Range Organics (C6-C10)	373	50	ug/l	440		84.8	70-113			
Surrogate: 1,2-Dichloroethane-d4	*5.41*		*"*	*5.00*		*108*	*78-129*			
Laboratory Control Sample Dup (3G10011-BSD1)				Prepared & Analyzed: 07/10/03						
Methyl tert-butyl ether	11.0	0.50	ug/l	10.0		110	63-137	6.57	13	
Benzene	9.46	0.50	"	10.0		94.6	78-124	3.11	12	
Toluene	9.56	0.50	"	10.0		95.6	78-129	2.22	10	
Surrogate: 1,2-Dichloroethane-d4	*5.71*		*"*	*5.00*		*114*	*78-129*			
Laboratory Control Sample Dup (3G10011-BSD2)				Prepared & Analyzed: 07/10/03						
Gasoline Range Organics (C6-C10)	357	50	ug/l	440		81.1	70-113	4.38	9	
Surrogate: 1,2-Dichloroethane-d4	*5.43*		*"*	*5.00*		*109*	*78-129*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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FAX (408) 782-6308
www.sequoialabs.com

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMG0042
500 12th Street, Suite 100	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/22/03 09:19

Notes and Definitions

O-12	"The continuing calibration verification was outside of client contractual acceptance limits by 11.7% low. However, it was within method acceptance limits. The data should still be useful for its intended purpose."
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

mm 6002

bp

Project Name
BP BU/GEM CO Portfolio:
BP Laboratory Contract Number:
Date: 6/27/03 Requested Due Date (mm/dd/yy) STANDARD

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

Send To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 20200 Hesperian Blvd, HAYWARD, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. ARCO 5387	Oakland, CA 94609-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #:	Consultant/Contractor Project No.: 35-00005387.01 00427
Lab PM: Latonya Pelt	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1735/510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: Send EDF Reports		Invoice to: Consultant/Contractor or BP/GEM (circle one)
BP/GEM Account No.:	Tele/Fax:	BP/GEM Work Release No: INTRIM -50591

Lab Bottle Order No:

Item No.	Sample Description	Time	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Sediments	Matrix: Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Requested Analysis: TPH-G / BTEX (8015/8021)	Requested Analysis: TPH-D (8015)	Requested Analysis: MTBE (8021)	Requested Analysis: MTBE, TAME, ETBE, DIPE, TBA (8260)	Requested Analysis: 1,2-DCA & EDB (8260)	Requested Analysis: Ethanol (8260)	Sample Point Lat/Long and Comments
1	MW-1	1400		X			01	3				X	X			X		X	
2	MW-2	1310		X			02	3				X	X			X		X	
3	MW-3	1340		X			03	3				X	X			X		X	
4	A-4	1235		X			04	3				X	X			X		X	
5	A-5	1245		X			05	3				X	X			X		X	
6	A-6	1215		X			06	3				X	X			X		X	
7	A-7	1050		X			07	3				X	X			X		X	
8	A-8	1115		X			08	3				X	X			X		X	
9	A-9	1135		X			09	3				X	X			X		X	
10	A-10	0955		X			10	3				X	X			X		X	

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: BRIAN ALCORD						
Sampler's Company: BLAINE TECH SERVICES		7/1/03	1035		7/1/03	1035
Shipment Date:		7/1/03	1112		7/1/03	11:12
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Address Invoice to BP/GEM but send to URS for approval

Coolers In Place Yes ___ No X Temperature Blank Yes ___ No X Cooler Temperature on Receipt 6 °F/C Trip Blank Yes ___ No X

Distribution: White Copy - Laboratory / Yellow Copy - BP/GEM / Pink Copy - Consultant/Contractor

Chain of Custody Record

Page 2 of 2

Project Name:
BP BU/GEM CO Portfolio:
BP Laboratory Contract Number:
Requested Due Date (mm/dd/yy): STANDARD - MHG0052

Date: 6/27/03

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

Send To:
Name: SEQUOIA
Address: 885 Jarvis Dr.
Morgan Hill, CA 95037
PM: Latonya Pelt
Tel/Fax: 408-776-9300 / 408-782-6308
Report Type & QC Level: Send EDF Reports
BP/GEM Account No.:
Battle Order No:

BP/GEM Facility No.:
BP/GEM Facility Address: 20200 Hesperian Blvd, HAYWARD, CA
Site ID No.: ARCO 5387
Site Lat/Long:
California Global ID #:
BP/GEM PM Contact: PAUL SUPPLE
Address:
Tele/Fax:

Consultant/Contractor: URS
Address: 500 12th St., Ste. 200
Oakland, CA 94607-4014
e-mail EDD: syed_rehan@urscorp.com
Consultant/Contractor Project No.: 15-00005387.01 00027
Consultant Tele/Fax: 510-874-1735/510-874-3268
Consultant/Contractor PM: Scott Robinson
Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Work Release No: INTRIM-50591

No.	Sample Description	Time	Matrix: Soil/Solid	Water/Liquid	Sediment	Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	Requested Analysis: TPH-G/BTEX (8015/8021)	TPH-G (8015)	MTBE (8021)	MTBE, TAME, ETBE, DIPE, TBA (8260)	1,2-DCA & EDB (8260)	Oxygenates (8260)	Sample Point Lat/Long and Comments
1	AR-1	0835		X				3				X	X			X		X	
2	AR-2	0815		X				3				X	X			X		X	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler's Name: Brian Adams
Sampler's Company: Blaine Tech Services
Shipment Date:
Shipment Method
Shipment Tracking No:

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
	7/1/03	1035		7/1/03	1035
	7/1/03	1112		7/1/03	11:12

Special Instructions: Address invoice to BP/GEM but send to URS for approval

Custody Seals in Place Yes No X Temperature Blank Yes No X Cooler Temperature on Receipt 6 °F/C Trip Blank Yes No X

Distribution: White Copy - Laboratory / Yellow Copy - BP/GEM / Pink Copy - Consultant/Contractor

BP COC Rev. 1 2/5/01

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP
REC. BY (PRINT)
WORKORDER: MM60042

DATE REC'D AT LAB: 7/1/03
TIME REC'D AT LAB: 11:17
DATE LOGGED IN: 7-2-03

Drinking water for regulatory purposes: YES (NO)
Wastewater for regulatory purposes: YES (NO)

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / (Absent)	01		MW-1	3) VOAs	HCL	L	6/27/03	
Intact / Broken*	02		2	↓	↓	↓	↓	
2. Chain-of-Custody (Present) / Absent*	03		3					
3. Traffic Reports or Packing List: Present / (Absent)	04		A-4					
	05		5					
4. Airbill: Airbill / Sticker	06		6					
Present / (Absent)	07		7					
5. Airbill #:	08		8					
6. Sample Labels: (Present) / Absent	09		9					
7. Sample IDs: (Listed) / Not Listed	10		10					
on Chain-of-Custody	11		AR-1					
8. Sample Condition: (Intact) / Broken* /	12		2	↓	↓	↓	↓	
Leaking*								
9. Does information on custody reports, traffic reports and sample labels agree? (Yes) / No*								
10. Sample received within hold time: (Yes) / No*								
11. Proper Preservatives used: (Yes) / No*								
12. Temp Rec. at Lab: 6°C								
Is temp 4 +/-2°C? (Yes) / No**								
(Acceptance range for samples requiring thermal pres.)								
**Exception (if any): Metals / DFF (Direct From Field) or Problem COC								

7/1/03

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

ATTACHMENT C

EDCC REPORT

Error Summary Log

07/24/03

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #5387, Hayward, CA
Work Order Number:	MMG0042
Global ID:	NA
Lab Report Number:	MMG0042072220030919

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
MMG0042072220 030919	A-10	MMG004210	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09035	1
MMG0042072220 030919	A-4	MMG004204	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09033	1
MMG0042072220 030919	A-5	MMG004205	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09033	1
MMG0042072220 030919	A-6	MMG004206	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09033	1
MMG0042072220 030919	A-7	MMG004207	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09033	1
MMG0042072220 030919	A-8	MMG004208	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09033	1
MMG0042072220 030919	A-9	MMG004209	W	CS	8260+OX	SW5030B	06/27/03	07/10/03	07/10/03	3G10011	1
MMG0042072220 030919	AR-1	MMG004211	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09035	1
MMG0042072220 030919	AR-2	MMG004212	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09035	1
MMG0042072220 030919	MW-1	MMG004201	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/09/03	3G09033	1
MMG0042072220 030919	MW-2	MMG004202	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09033	1
MMG0042072220 030919	MW-3	MMG004203	W	CS	8260+OX	SW5030B	06/27/03	07/09/03	07/10/03	3G09033	1
		MMG007802	W	NC	8260+OX	SW5030B	/ /	07/09/03	07/09/03	3G09035	1
		3G09033BS1	WQ	BS1	8260+OX	SW5030B	/ /	07/09/03	07/09/03	3G09033	1
		3G09033BS2	WQ	BS2	8260+OX	SW5030B	/ /	07/09/03	07/09/03	3G09033	1
		3G09033BLK1	WQ	LB1	8260+OX	SW5030B	/ /	07/09/03	07/09/03	3G09033	1
		3G09033MS1	W	MS1	8260+OX	SW5030B	/ /	07/09/03	07/10/03	3G09033	1
		3G09035BS1	WQ	BS1	8260+OX	SW5030B	/ /	07/09/03	07/09/03	3G09035	1
		3G09035BS2	WQ	BS2	8260+OX	SW5030B	/ /	07/09/03	07/09/03	3G09035	1
		3G09035BLK1	WQ	LB1	8260+OX	SW5030B	/ /	07/09/03	07/10/03	3G09035	1
		3G09035MS1	W	MS1	8260+OX	SW5030B	/ /	07/09/03	07/09/03	3G09035	1
		3G09035MSD1	W	SD1	8260+OX	SW5030B	/ /	07/09/03	07/09/03	3G09035	1
		3G10011BSD1	WQ	BD1	8260+OX	SW5030B	/ /	07/10/03	07/10/03	3G10011	1
		3G10011BSD2	WQ	BD2	8260+OX	SW5030B	/ /	07/10/03	07/10/03	3G10011	1
		3G10011BS1	WQ	BS1	8260+OX	SW5030B	/ /	07/10/03	07/10/03	3G10011	1
		3G10011BS2	WQ	BS2	8260+OX	SW5030B	/ /	07/10/03	07/10/03	3G10011	1

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
		3G10011BLK1	WQ	LB1	8260+OX	SW5030B	/ /	07/10/03	07/10/03	3G10011	1

EDFSAMP: Error Summary Log

07/24/03

Error type	Logcode	Projname	Npdlwo	Sampid	Matrix
There are no errors in this data file					

EDFTEST: Error Summary Log

07/24/03

Error type	Labsampid	Qccode	Anmcode	Exmcode	Anadate	Run number
There are no errors in this data file					/ /	0

EDFRES: Error Summary Log

07/24/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3G09033MS1	MS1	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	3G09035MS1	MS1	W	8260+OX	PR	07/09/03	1	GROC6C10
Warning: extra parameter	3G09035MSD1	SD1	W	8260+OX	PR	07/09/03	1	GROC6C10
Warning: extra parameter	MMG004201	CS	W	8260+OX	PR	07/09/03	1	GROC6C10
Warning: extra parameter	MMG004201	CS	W	8260+OX	PR	07/09/03	1	XYLENES
Warning: extra parameter	MMG004202	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004202	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004203	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004203	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004204	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004204	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004205	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004205	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004206	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004206	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004207	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004207	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004208	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004208	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004209	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004209	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004210	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004210	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG004211	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004211	CS	W	8260+OX	PR	07/10/03	1	XYLENES

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	MMG004212	CS	W	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	MMG004212	CS	W	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	MMG007802	NC	W	8260+OX	PR	07/09/03	1	GROC6C10
Warning: extra parameter	3G09033BLK1	LB1	WQ	8260+OX	PR	07/09/03	1	GROC6C10
Warning: extra parameter	3G09033BLK1	LB1	WQ	8260+OX	PR	07/09/03	1	XYLENES
Warning: extra parameter	3G09033BS2	BS2	WQ	8260+OX	PR	07/09/03	1	GROC6C10
Warning: extra parameter	3G09035BLK1	LB1	WQ	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	3G09035BLK1	LB1	WQ	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	3G09035BS2	BS2	WQ	8260+OX	PR	07/09/03	1	GROC6C10
Warning: extra parameter	3G10011BLK1	LB1	WQ	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	3G10011BLK1	LB1	WQ	8260+OX	PR	07/10/03	1	XYLENES
Warning: extra parameter	3G10011BS2	BS2	WQ	8260+OX	PR	07/10/03	1	GROC6C10
Warning: extra parameter	3G10011BSD2	BD2	WQ	8260+OX	PR	07/10/03	1	GROC6C10

EDFQC: Error Summary Log

07/24/03

Error type	Lablotctl	Anmcode	Parlabel	Qccode	Labqcid
There are no errors in this data files					

EDFCL: Error Summary Log

07/24/03

Error type	Clrevdate	Anmcode	Exmcode	Parlabel	Clcode
There are no errors in this data file	/ /				